

# Archaeological Observation

**46-50 Denmark Road  
Gloucester**

NGR: SO 8355 1947  
Report No. BA0414MBDR

# **BORDER ARCHAEOLOGY**

PO Box 36  
Leominster  
Herefordshire  
HR6 OYQ

**Technical Services**  
Chapel Walk  
Burgess Street  
Leominster  
Herefordshire  
HR6 8DE

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### Report Specification

*Archaeological Observation and draft report:* John Winterburn BSc MA

*Report editing:* George Children MA

This Report has been produced according to guidelines issued by the Institute of Field Archaeologists (1995; revised 2001) and reflects planning legislation & guidance notices



# 1. Non Technical Summary

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*The site, formerly known as Allstone Sand and Gravel, lies close to the Roman fortress at Kingsholm. After the abandonment of the fortress, much of the site appears to have been used as a burial ground until the 4<sup>th</sup> century AD, when a second cemetery was established, the boundaries of which overlapped with the earlier burial ground and extended well to the south, covering much of Denmark Road (including the study area). It has been suggested that this was a Christian burial ground, apparently established sometime in the 4<sup>th</sup> century when Christianity became the official religion of the Roman Empire and remaining in use until the 5<sup>th</sup> century.*

*The Archaeological Observation revealed further evidence indicating that 46-50 Denmark Road may have formed part of a Roman cemetery. Part of a human skeleton was found in the centre of the site, the east/west orientation of the remains suggesting that this was a Christian burial and therefore contemporary with the second cemetery.*



Plate 1: Excavated area (Phase 1), looking W

*In general, the site showed evidence of multiple re-use, the ground surface lying approximately 0.5m above the level of the gardens located to the west and north. The trench excavations revealed a build-up of mixed rubble, iron slag, gravel and concrete overlying the natural surface of mixed sand and gravel.*

*The western end of the site revealed evidence of extensive iron smelting or casting operations, probably of 19<sup>th</sup> century date, in the form of a continuous layer of iron slag that had been cast in-situ to form a working floor surface, whilst 19<sup>th</sup> century garden edging tiles located in the northeast corner of the site indicated the presence of a former garden feature. Additionally, a large amount of 19<sup>th</sup> century domestic pottery fragments and a number of clay-pipe stem fragments were recovered from the spoil.*



## 2. Introduction

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Border Archaeology was instructed by Markey Builders to conduct archaeological observation of groundworks at the former Allstone Sand and Gravel premises, 46-50 Denmark Road, Gloucester, in pursuance of an archaeological brief issued by Gloucester City Council.

The road frontage of the site measured 48m and the width 18-30m. Fronting the road was a two-storey brick and stone store / office building (11.8m x 6.4m) that was demolished as part of site clearance work carried out during April 2004.

Much of the site was surfaced with concrete and contained the remains of several gravel / sand storage bins, a weighbridge and a vehicle inspection pit. The site is level and lies at approximately 50m AOD, roughly 0.5m higher than the gardens of the adjacent property, No 52 Denmark Road. Natural mixed sand and gravel deposits were encountered in some trenches at a level of 48.5m AOD.

## 3. Historical & Archaeological Overview

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There is significant archaeological evidence for Roman occupation and funerary activity in the locality of the evaluation site, Nos. 46-50 Denmark Road. The site is located in the immediate vicinity of a Roman fortress and adjacent civil settlement and cemetery at Kingsholm. There is also evidence for 19<sup>th</sup> century industrial activity associated with clay pipe manufacture and iron smelting.

In 1972, excavations carried out in the Kingsholm district, immediately W of Denmark Road, confirmed the long-held belief that a Roman fortress once existed there, close to the old course of the River Severn (Hurst, 1985; McWhirr, 1986, 11-12). The excavations, carried out at Kingsholm Square, approximately 150m W of the study area at 46-50 Denmark Road, revealed two phases of timber buildings, along with a sizeable assemblage of military objects dating from the 1<sup>st</sup> century AD, extending over an area of 20 hectares. The finds at Kingsholm do not indicate conclusively whether the unit occupying the fortress was legionary, auxillary or a mixture of both, although the discovery of a bronze cheekpiece from a Roman cavalryman's parade helmet suggests the presence of auxillary troops.

It is possible that the study area in Denmark Road may lie within or close to the SE corner of the Kingsholm fortress and an Archaeological Evaluation carried out on the study area by Gloucester Archaeology Unit in November 2002 identified linear features to the N, which may have been associated with structures contained within Kingsholm fort.



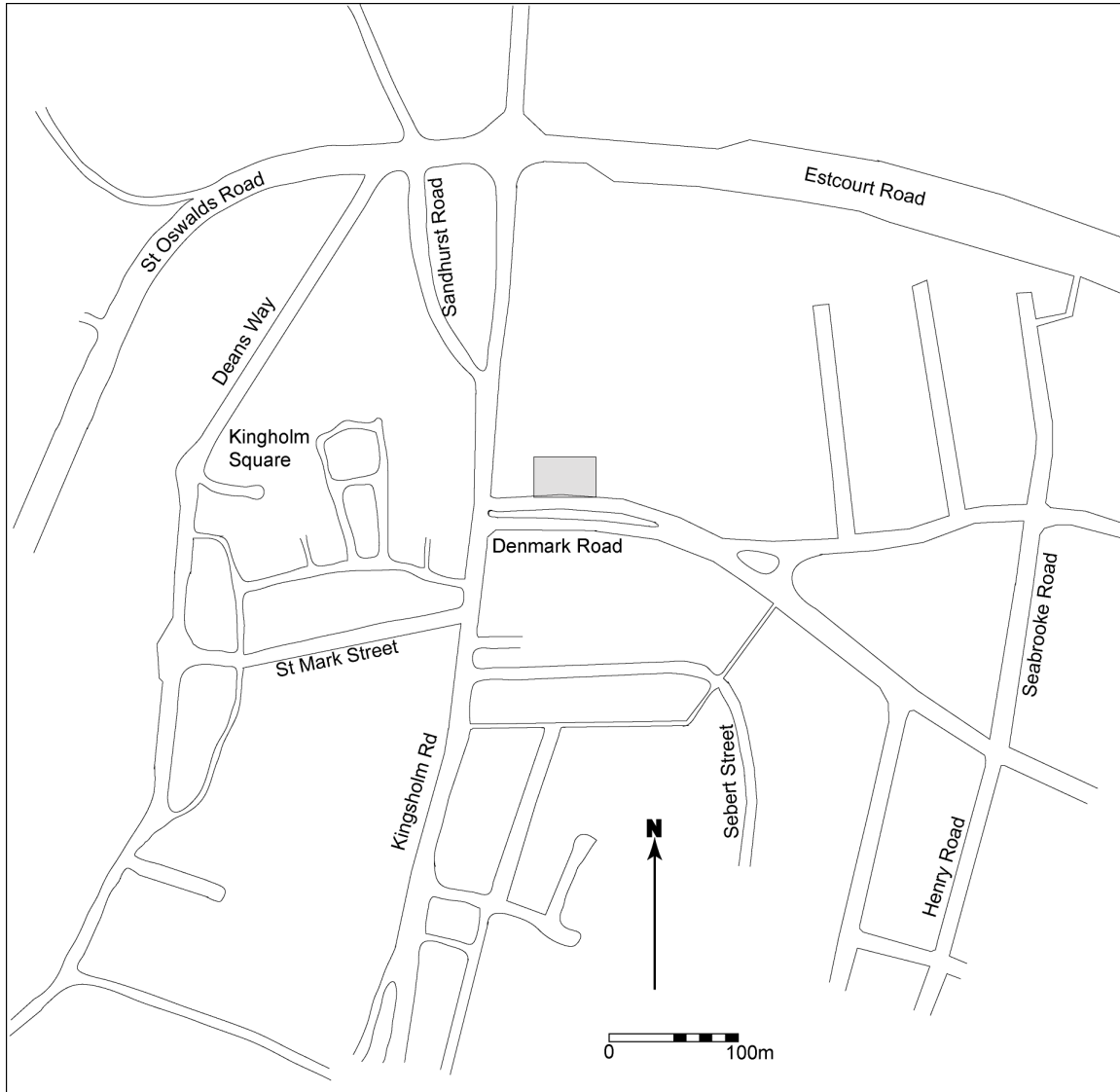


Fig. 1: Map showing site location

Archaeological evidence indicates that the Kingsholm fort was abandoned at some point between AD64 and AD66. It was superseded by another fortress, some 17 hectares in size, built on the low hill now occupied by Gloucester city centre. Parts of the fortress were excavated in 1966-7 at the new Eastgate Market Hall and in 1969 at the Telephone Exchange. After the abandonment of the fortress at Kingsholm, a large part of the site appears to have been used as a burial ground. Further excavations carried out in 1983 at Gambier Parry Gardens, approximately 300m N of Denmark Road, during the construction of a new housing estate, revealed two large cemeteries.

The first burial ground consisted of hundreds of burials and cremations, dating from the 1<sup>st</sup>-4<sup>th</sup> centuries AD, which contained many fine grave goods including pottery, glass, coins and jewellery. The boundaries of the second cemetery overlapped with the earlier burial ground and extended well to the S, covering much of Denmark Road (including the study area at Nos. 46-50). It was very different in character from the earlier burial site, as the burials did not have grave goods and were all aligned roughly E-W. It has



been suggested that this was a Christian burial ground, apparently established sometime in the 4<sup>th</sup> century (when Christianity became the official religion of the Roman Empire) and remaining in use until the 5<sup>th</sup> century.

In 1979, excavations carried out at 46-50 Denmark Road revealed evidence of an intact burial of Roman date, although no other burials were discovered at that time. The Archaeological Observation carried out by Border Archaeology has revealed further evidence indicating that the study area at 46-50 Denmark Road may have formed part of a Roman cemetery. In the centre of the site, the articulated leg bones of a human skeleton were found, although the remainder of the skeleton was left undisturbed. This inhumation was orientated E-W, suggesting a Christian burial and further human skeletal remains were located in close proximity. It may be suggested that this burial formed part of the nearby Christian burial ground, which is generally believed to have been used in the 4<sup>th</sup>-5<sup>th</sup> centuries AD.

No evidence of medieval occupation has been found during the Archaeological Observation of the 46-50 Denmark Road site. However, it is believed that, on part of the site of the former Roman fortress at Kingsholm, situated to the W of the study area at Denmark Road, a Saxon royal residence was established, probably at some time during the 10<sup>th</sup>-11<sup>th</sup> century. The Danish King Cnut and Edward the Confessor are known to have resided there and it is possible that William the Conqueror may have held his Christmas court there in 1085, when he commissioned Domesday Book to be written.

A large expanse of iron slag located to the SW of the study area appears to have been cast in-situ which points to the existence of an iron foundry although there is no sign of an associated furnace. This was probably associated with mid 19<sup>th</sup> century industrial activity; iron smelting was an industry of major importance in Gloucester during the Victorian period. Located beneath the iron slag was a large volume of clay pipes; these finds may be associated with an early 19<sup>th</sup> century clay pipe factory situated in the vicinity of Denmark Road.

To the NE of the study area, the Archaeological Observation revealed two rows of what appeared to be Victorian edging tiles. It is clear that this area had originally been utilised as part of a garden associated with the terraced houses to the W. Further 19<sup>th</sup> century activity can be identified to the SW and W end of the study area, where deposits of modern material were identified. These deposits are probably linked with the construction and subsequent demolition of part of the Victorian terrace adjoining No. 52 Denmark Road.

## 4. Geology

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Gloucester being an unsurveyed urban area (Soil Survey of England & Wales 1983), there is no general description available of soils within the Denmark Road area of the city. To the W lie stoneless, mostly reddish clayey soils affected by groundwater, overlying geology reddish river alluvium (COMPTON association 813e). To the N are areas of well-drained calcareous and non-calcareous fine loamy soils over limestone gravel. Also present are some deep fine loamy soils and fine loamy soils over gravel and similar but shallower soils affected by groundwater (BADSEY I association 511h).



However, the predominant soil association lying N and E of Denmark Road comprises slowly permeable calcareous clayey soils over Jurassic and Cretaceous clay (EVESHAM 2 association 411b). There are also in these areas some slowly permeable seasonally waterlogged non-calcareous clayey and fine loamy or fine silty over clayey soils.

## 5. Methodology

An area located in the NE corner of the site was excavated by machine to a depth of 0.5-0.1m below the existing surface for the construction of site offices and a temporary access road (Phase 1). The remainder of the site was scraped back using a 1.2m wide toothless bucket (Phase 2).

Whilst some of the trenching for the in-situ casting of reinforced concrete beams (Phase 3) was dug by hand, the majority was machine excavated using a 0.6m wide toothless bucket.

All excavation work was supervised and all trenches examined, the spoil being inspected for finds.

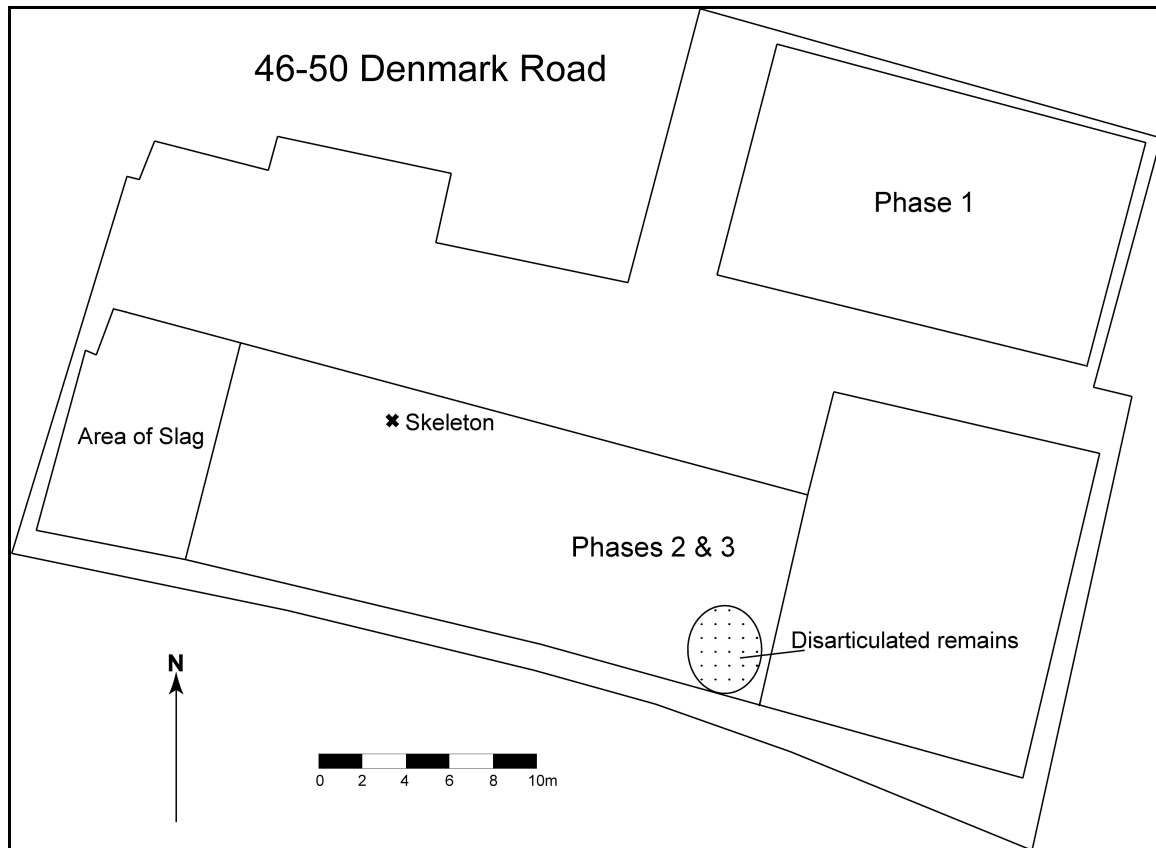


Fig. 2: Plan of site layout



## 6. Archaeological Observation

The groundworks were carried out in three phases: site clearance work and the construction of a temporary road in the NE corner of the site (Phase 1); a mechanical scrape-back of the remainder of the site (Phase 2) and the excavation of trenches for structural, reinforced concrete beams (Phase 3).

### 6.1 Site clearance and construction of temporary road (Phase 1)



Plate 2: Excavated area, phase 1, looking S

Phase 1 covered an area of approximately 18m x 11.4 m in the NE corner of the site (**Fig. 2**). This area was originally part of a garden belonging to the terraced housing to the W but was more recently used as a sand and gravel storage area.

The area was excavated by machine in spits of approximately 100mm, the amount of material removed being approximately 500 mm on the western edge decreasing to none on the eastern edge.

The area was covered by a mixture of red / yellow sand and 10mm gravel mixed with general building rubble and paving slabs to a depth of approximately 250 mm. Beneath this was a dark brown / grey humic soil containing fragments of building rubble and occasional gravel.

A double row of fractured and broken garden edging tiles, approximately 400mm apart, ran E-W across the centre of the area and was left in-situ. The spoil contained several fragments of modern domestic pottery and clay pipe fragments but no features of archaeological significance were found.





Plate 3: Excavated area, Phase 1, looking N

## 6.2 Mechanical scrape-back of remainder of site (Phase 2)

The Phase 2 groundworks comprised a mechanical scrape-back of the entire planned area of development using a 360° excavator with 1.2m toothless bucket.

The area cleared measured 45m x 20m and 0.1-0.2 m of ground was removed. The ground surface comprised a 20<sup>th</sup> century levelling deposit of brick rubble and concrete resulting from the demolition of the store / office building (April 2004).

The concrete entrance yard, drainage inspection chambers and a vehicle inspection pit remained intact after this phase. **No archaeology was identified.**

## 6.3 Excavation of trenches (Phase 3)

This phase comprised the excavation of trenching to 49.05m AOD across most of the site.

The trenches were machine excavated using a 0.6m toothless bucket. Due to the un-compacted nature of the ground and the instability of the brick and concrete rubble covering much of the area the trenches tended to collapse and thus ranged from a nominal 0.6 m to more than 2m in width.

The NW end of the site revealed an extensive area of iron slag that had been cast in-situ to form a floor or working surface (**Plate 4**). This slag contained iron or steel fragments



(1mm to 2mm) and spherical beads indicating that the material had been poured from a furnace or crucible. The slag floor varied between 100mm and 300mm in thickness.



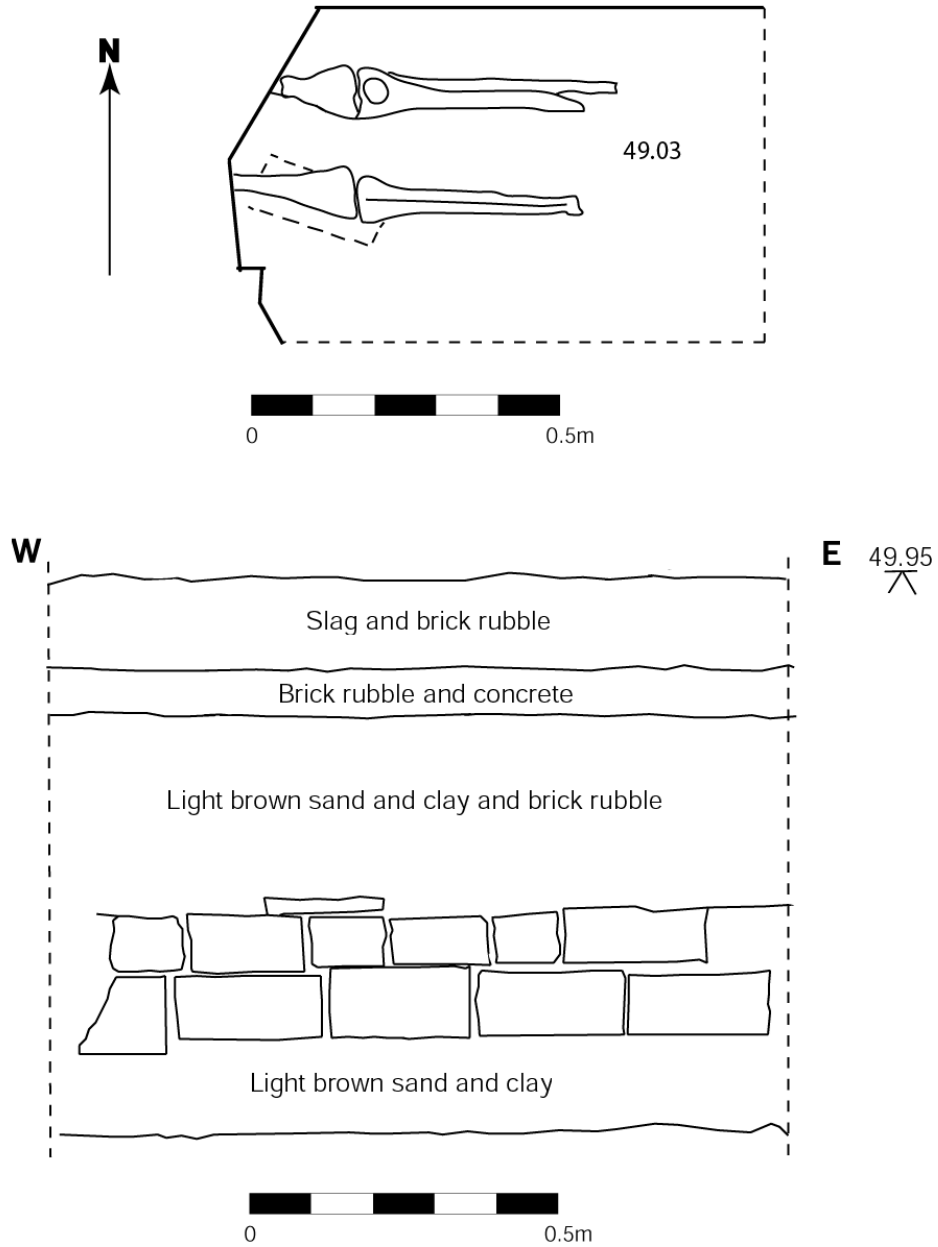
Plate 4: Profile of trench at western edge of the site showing the cast-slag floor

### 6.3.1 Human remains

Protruding from the E facing section of the baulk within the central area of the site (**Fig. 2**) were the articulated leg bones of an extended supine adult inhumation orientated E-W, with the head located at W (**Plate 5; Fig. 3**). The majority of the skeleton remained undisturbed within the baulk; exposed were the L and R femur (distal end) and the L and R tibia (c.0.30m in length - distal ends removed during excavation). The L fibula was present but broken; the L patella was also present. Recovered foot bones included occasional metatarsals and phalanges. Only the base of the grave cut was visible and no evidence of grave goods was identified.

The R knee appeared to be resting on a small sub-rectangular stone and in close proximity to the remains was a single unstratified sherd of Gaulish Samian consisting of a base/pedestal of a carinated vessel (**Plates 10 & 11**). The diagnostic limitations of the sherd are apparent due to a lack of decoration and potters stamp thus excluding a specific kiln centre or Imperial dynasty. A provisional date may be sought due to the known date range of production and cessation of this type of fine ware, the sherd probably predating the latter part of the 2<sup>nd</sup> century. The form of the base may be of a type 37, a hemispherical bowl introduced around AD 70.





Figures 3 & 4: Human skeletal remains located in central area of site (above) and trench section showing brickwork located immediately S of inhumation



Plate 5: Human skeletal remains located in central area of site



Plate 6: Brickwork located immediately S of the inhumation





Plate 7: Detail of brickwork looking NE



Plate 8: Masonry located to NW of inhumation



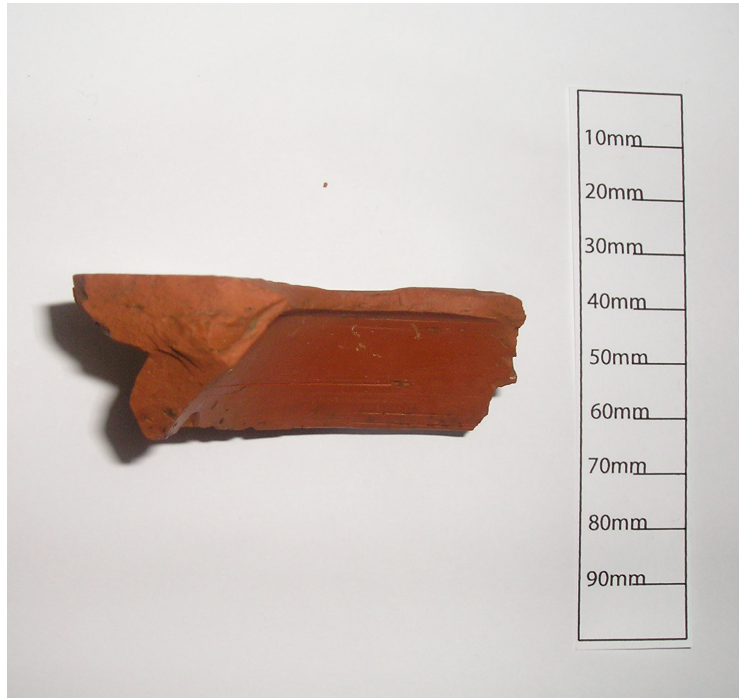
Also found within Phase 3, within the southeastern part of the site, was a quantity of disarticulated human remains (**Fig. 2; Plate 9**).



Plate 9: Disarticulated remains found in the SE area of the site







Plates 10 & 11: Sherd of Gaulish Samian consisting of a base/pedestal of a carinated vessel

## 7. Summary

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The groundworks revealed further evidence indicating that the study area at 46-50 Denmark Road may have formed part of a Roman cemetery. The articulated leg bones of a human skeleton orientated E-W suggest a Christian burial and further human skeletal remains were also located. It may be suggested that this burial formed part of the nearby Christian burial ground, which is generally believed to have been used in the 4<sup>th</sup>-5<sup>th</sup> centuries AD. A single unstratified Samian ware fragment, which may be tentatively dated to the mid 2<sup>nd</sup> century, was found close to the inhumation.

The NW end of the site revealed an extensive area of iron slag that had been cast *in-situ* to form a floor or working surface. This slag contained iron or steel fragments (1mm to 2mm) and spherical beads indicating that the material had been poured from a furnace or crucible. The slag floor varied between 100mm and 300mm in thickness.

## 8. Bibliography

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Donel, L., 46-50 Denmark Road, Gloucester, A Programme of Archaeological Evaluation, Gloucester Archaeology Unit (November 2002) Ref. GLRCM 2002/81

Heighway, C., *Gloucester: A History and Guide* (Gloucester, 1985)



Holbrook, N., 'The Roman Vale and Forest' in Verey, D. & Brooks, A., *The Buildings of England, Gloucestershire 2: The Vale and the Forest of Dean* (London, 3<sup>rd</sup> ed., 2002)

Hurst, H.R., 'Kingsholm' *Gloucester Archaeological Reports* Volume 1 (1985)

McWhirr, A., *Roman Gloucestershire* (Gloucester, 1981)