

SUE HEASER<sup>a</sup>

## DARK ELLIPSOID BEADS WITH OPAQUE GLASS THREAD DECORATION FOUND IN BRITAIN

**Abstract:** Dark glass ellipsoid beads decorated with coloured glass threads are a relatively rare bead type that to date have mostly been found in Central Europe and the Near East. The author has located four examples of these beads in British museums, all from datable levels. This paper describes the British beads in detail and compares them with similar finds elsewhere. She also investigates the making of the beads using hot glass beadmaking skills.

**Keywords:** Beads of dark glass with opaque glass threads decoration, late Roman period, early Middle Ages, Anglo-Saxon period, England, Near East, lands north of the Black Sea, Central Europe, Damascus

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<sup>a</sup> Sue Heaser, Independent Archaeological Researcher, The Farthings, Wortham, Suffolk IP22 1PU U.K., sueheaser@live.co.uk, ORCID iD: <https://orcid.org/0000-0002-2363-8600>.

## 1. INTRODUCTION

I have been researching the Early Medieval glass beads of England in the United Kingdom for several years. I had noticed a small number of beads found in burials that are particularly distinctive and very different to other Anglo-Saxon beads found in 5<sup>th</sup> and 6<sup>th</sup> century cemeteries in England. I then found a paper about these beads by Prof. Dr. Maria Dekówna (2018) describing the beads and their probable origins in Syria or the Near East. Prof. Dekówna told me that the English beads are the most western examples of this kind found to date. Other finds are a collection in Damascus museum; two beads found in Devin Castle in Bratislava, Slovakia; one bead found in Abraham, Slovakia; one bead from Ojców, Poland; and one bead from Leverkusen, Germany. I have not found any evidence so far that these beads occur in mainland European countries further west than Germany. This makes the find in Britain more surprising and suggests that they may have travelled to Britain from the Mediterranean, perhaps with the Roman army.

In this paper the beads found in England are described in detail, also their discovery sites and dating (Fig. 1).

## 2. THE BEADS

The beads are all long ellipsoids in dark or black glass. They are wound beads and carelessly made. The basic bead was not heated after making to smooth the glass and consolidate the applied decoration. The winding marks are visible in all examples studied and the glass contains impurities and small bubbles. The decoration is



Fig. 1. Map of England showing thread bead finds.

Map by Sue Heaser

applied in a similar carefree manner with little attempt at regularity or precision. Threads of opaque glass are used to decorate the beads and the English examples are all decorated with a single colour, either white, yellow, blue or red. The decorating threads stand proud of the surface of the beads and have not been melted flush into the bead surface. The beads were not marvered to refine the shape when complete.

Categorisation of these beads has divided them into types and sub-types (Dekówna 2018). All the English beads belong to Dekówna's category B1 with intersecting waves of a single colour. They all also have ends decorated with wound threads of the same colour.

### 2.1. BEADS FROM BATH GATE ROMAN CEMETERY, CIRENCESTER, GLOUCESTERSHIRE

Current location: Corinium Museum, Cirencester, Gloucestershire, UK.

Museum nos: 1980/409/639 (Small find no. 211 in the report) and 1980/409/640 (212 in the report).

Cirencester is the site of the Roman town of *Corinium Dobunorum*. It dates from about A.D. 70 and by the early 2<sup>nd</sup> c. was second only to London in size and importance, with a population of over 10,000. The two beads were found in the Roman cemetery to the west of the town, just outside the town walls and the Bath Gate (McWhirr *et al.* 1982, mf. D03–D06).

The area of the excavation is called CS 70 1. The beads were in the grave earth that surrounded the graves and not associated with any particular grave. But the excavators considered that the soil in this area was homogenous and had not been disturbed since Roman times. Coins found in the same soil were dated to the 4<sup>th</sup> and early 5<sup>th</sup> centuries. Margaret Guido examined the beads for the report and identified them as of “non-Roman” origin most probably from the Middle East and similar to the Petersfinger bead (see below; see also Guido 1999, Plate 3).

#### 2.1.1. Cirencester bead 211 (Figs 2–4)

Cirencester bead 211 has a black body and opaque white glass thread decoration. A strong light shone through the bead body shows that it is very dark translucent yellowish green glass. The bead is carelessly made and winding marks are visible. One end has broken off. The white thread decoration is applied in loose crossing waves, very variable in thickness from 0.5 mm to 2 mm. There is also a fine thread of white glass applied loosely around the unbroken end of the bead, similarly varying in thickness. The decoration is applied in a loose and imprecise manner. The white thread decoration has not been melted into the bead surface after applying. Some of the threads have broken away but the bead shows remarkable lack of erosion with longitudinal striations in the thread decoration showing the direction it was applied and dragged over the bead surface. Remains of dirt in these striations make grey streaks.

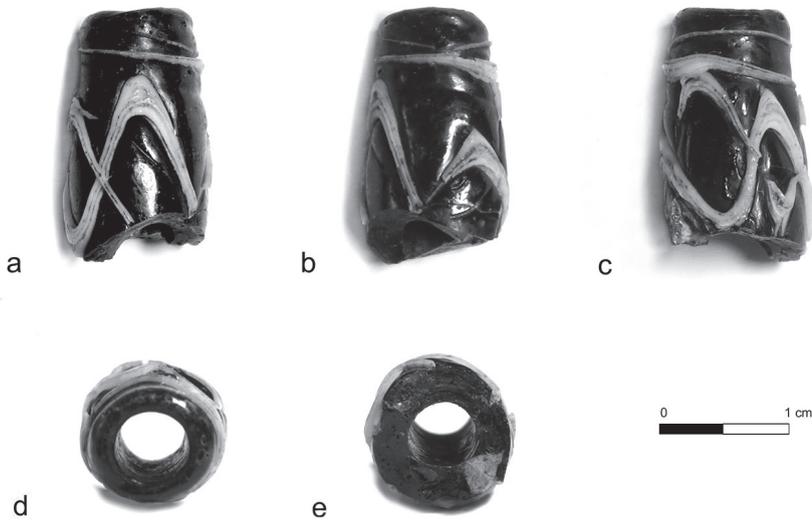


Fig. 2. Cirencester bead 211

a, b, c, – side views of the bead; d – unbroken end of bead; e – broken end of bead showing chalk inclusion in the glass.

Photos by Sue Heaser

There is an inclusion of chalk or stone in the body of the bead, visible on the broken edge (Fig. 2e). The bead is slightly oval in cross-section.

Length: 1.9 cm; maximum diameter is 1.1 cm at the widest point and 0.9 cm at the unbroken end; internal diameter of perforation is 0.4 cm to 0.5 cm at the broken end.

### 2.1.2. Cirencester bead 212 (Figs 5–7)

This bead is very similar to bead 211 but has opaque yellow thread decoration. It is slightly more cylindrical in shape than ellipsoidal. One end is rounded and has a tail of glass left from the winding process that has not been melted into the body of the bead. The other end is more abruptly truncated but does not have a clean break so may just be chipped. The central section is smoothed by melting in the flame but still has traces of the winding marks. The body appears black but is very dark translucent yellowish green glass, the same as bead 211.

The decoration is pale yellow opaque glass and is applied in a similar loose manner in crossing waves with concentric threads at each end. It has deteriorated more than the white glass of bead 211. Many bubbles are visible in this glass. The decoration is melted into the surface to a certain extent, but the thicker threads are still proud of the surface. The thicker threads are 2 mm thick, the finer threads are 0.5 mm.

Length: 2.5 cm; diameter: 1.0 cm; internal diameter of perforation: 0.4 cm



Fig. 3. Cirencester bead 211. Detail of decoration.

Photo by Sue Heaser

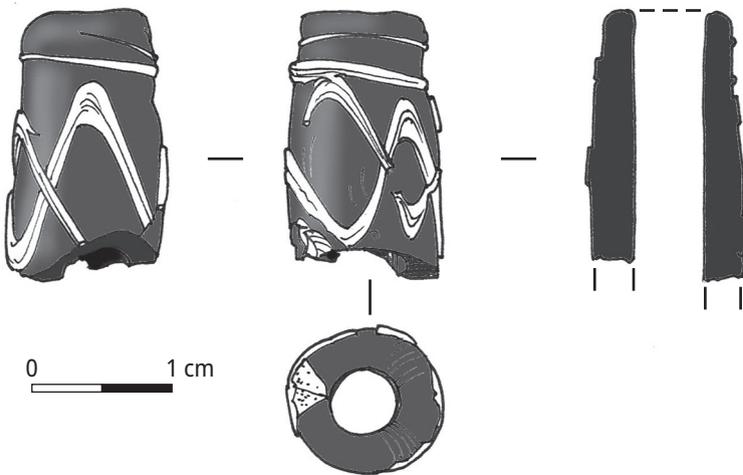


Fig. 4. Drawing of Cirencester bead 211.

Drawing by Sue Heaser

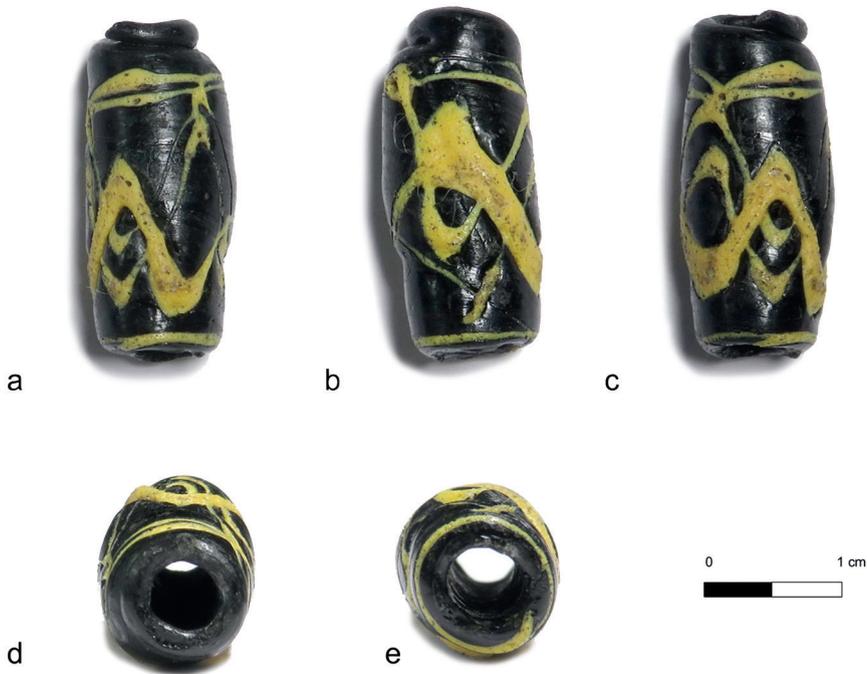


Fig. 5. Cirencester bead 212  
a, b, c – side views of the bead; d – view of top of bead; e – view of bottom of bead.

Photos by Sue Heaser

## 2.2. BEAD FROM SECONDARY BURIAL AT RISBY HEATH WESTERN BARROW (FIGS 8–10)

Grid Reference: TL 7761 6783. Lat: 52.280232N; Long: 0.60125149W.

Current location: West Stow Anglo-Saxon Museum, Icklingham Road, West Stow, Suffolk IP28 6HG UK.

Museum no: RISBY 1977.898

This bead was found in a Bronze Age round barrow as a secondary Anglo-Saxon burial on Risby Poor's Heath, north west of Bury St Edmunds in Suffolk. The secondary burial was associated with a 5<sup>th</sup> c. A.D. cremation urn with S-shaped decoration and the bead was found in the same level as the urn (Edwardson 1959, p. 153). This is a later date than the Cirencester beads but the similarity between the beads is remarkable. They could have been made by the same beadmaker.

The Risby bead is described in the report as having a dark blue body but this is wrong. It looks black but is a very dark translucent brownish green similar to the Cirencester beads. The shape is again long ellipsoid with clear traces that it was wound onto a mandrel. One end has broken off and there are air bubbles visible in the glass.



Fig. 6. Detail of decoration on Cirencester bead 212.

Photo by Sue Heaser



Fig. 7. Drawing of Cirencester bead 212.

Drawing by Sue Heaser

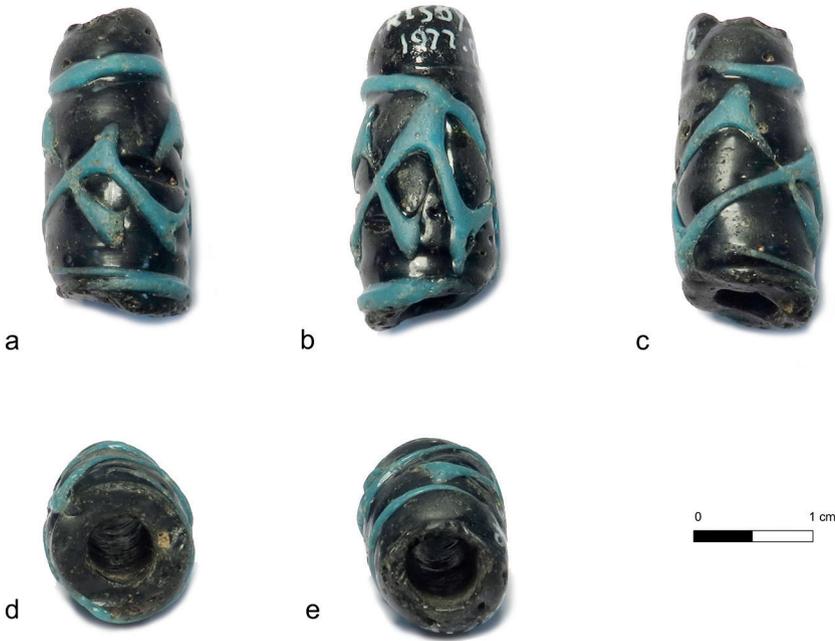


Fig. 8. Risby bead

a, b, c – side views of the bead; d – view of broken off bottom of bead; e – view of top of bead.

Photos by Sue Heaser

The decoration consists of threads of opaque light blue glass applied in exactly the same way as for the Cirencester beads in crossing waves but the waves are more of a zig-zag with definite points at each change of direction where the coloured molten glass was dabbed down onto the bead body in order to change direction. Concentric lines of blue thread have been applied at each end of the bead. The decoration threads vary in width from 0.5 mm to about 2 mm.

Length: 2.8 cm; diameter: 1.2 cm; internal diameter of perforation: 0.5 cm

### 2.3. BEAD FROM GRAVE 29, CLARENDON PARK ANGLO-SAXON CEMETERY, PETERSFINGER, WILTSHIRE (FIGS 11–14)

Grid reference: SU 163293: Lat: 51.062808N Long: -1.7687746

Current location: Salisbury Museum, Salisbury, Wiltshire.

Museum No.: SBYWM:1949.49.104

Clarendon Park is a 5<sup>th</sup>–6<sup>th</sup> c. inhumation cemetery excavated in 1948 when it was discovered by accident during chalk digging by contractors. The excavators found 63 graves and 70 skeletons (perhaps originally two adjacent cemeteries



Fig. 9. Detail of decoration on Risby bead.

Photo by Sue Heaser

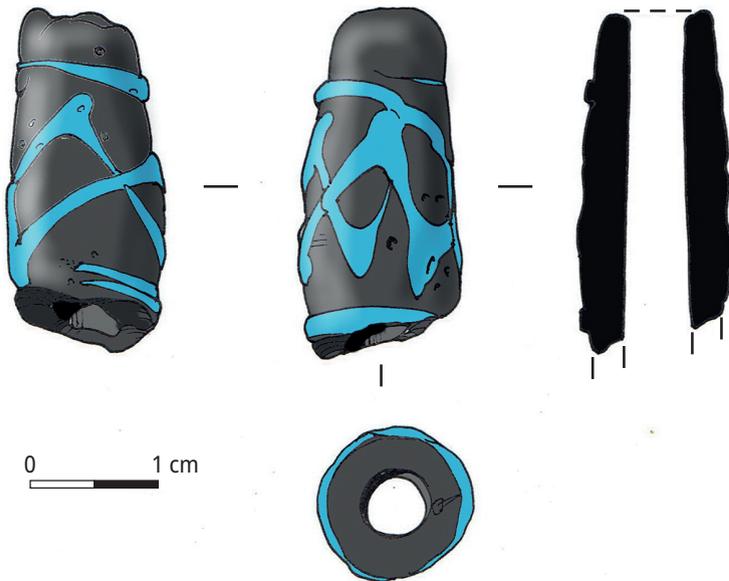


Fig. 10. Drawing of Risby bead 1977.898.

Drawing by Sue Heaser



Fig. 11. The Petersfinger bead (top right) in the necklace.

Photo courtesy of Salisbury Museum ©

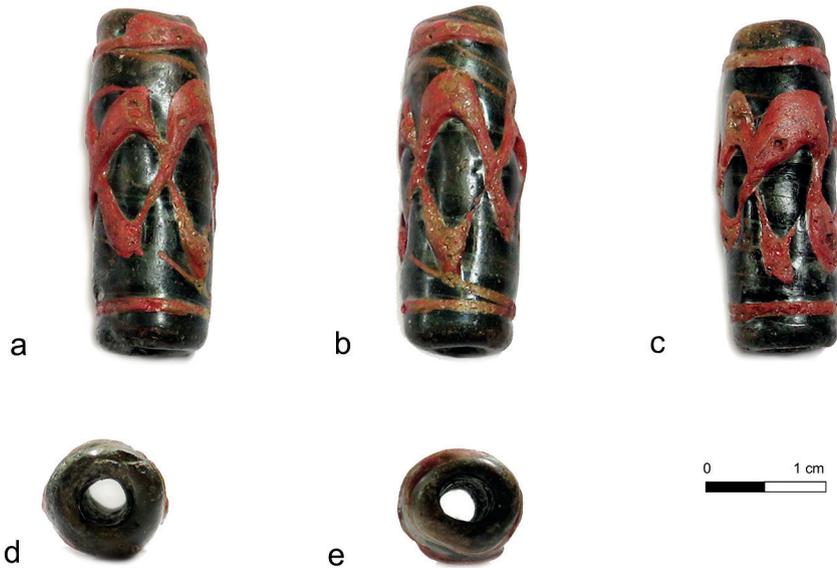


Fig. 12. Petersfinger bead

a, b, c – side views of the bead; d – view of bottom of bead; e – view of top of bead.

Photos by Sue Heaser



Fig. 13. Detail of decoration on Petersfinger bead.

Photo by Sue Heaser



Fig. 14. Drawing of Petersfinger bead 1949.49.104.

Drawing by Sue Heaser

serving different communities). Finds included 21 knives, 2 pottery vessels (one decorated), an iron bucket, 14 spearheads, 3 swords, a battle-axe, an ivory bangle and many brooches as well as beads.

The thread bead was found in Grave 29, the grave of a presumed elderly woman. The bead was in a necklace of 13 beads: two tubular bronze beads, one bone and the rest glass of various colours and typical of pagan Anglo-Saxon grave goods. Three of the beads have yellow/green twisted trail decoration typical of the period and probably made in Eastern England. The other types of beads are found widely in Britain and Europe.

The thread bead is very similar to the others described here with a black body and crossing trails, this time in opaque red glass. It is slightly more regularly made and has clear signs of winding. It is the longest bead of the set but of similar diameter. The decorative threads show signs of abrasion and have air bubbles.

Length: 3.0 cm; diameter: 1.1 cm; diameter of perforation: 0.4 cm.

### 3. COMPARISONS WITH THREAD DECORATED BEADS FOUND IN EUROPE AND THE NEAR EAST

The British beads are particularly like the two beads found at Devin Castle, Slovakia (Staššíková-Štukovská 2017, 105, Fig. 1:1–16). Like the beads from Cirencester, one of the Devin beads has opaque white decoration and the other, opaque yellow. The loose and untidy application of the threads could be by the same hand or the same workshop. The other bead described in the same paper from Abraham, Slovakia, is smoother and more refined, with crossing trails in blue and yellow and could have been shaped in a mould after winding (Staššíková-Štukovská 2017, p. 105, Fig. 1:17–22).

Drawings by Maria Dekówna of five beads in Damascus Museum (pers.com, unpublished) again look similar to the British beads with loose, whiplash threads in white, blue and yellow. These beads were dated by the museum to the 3<sup>rd</sup> c. A.D. (Dekówna 2018, p. 129). They have both single waves and crossing trails like the British beads.

A single bead found in Leinde, Leverkusen, Germany (Tempelmann-Mączyńska 1985, Type 331, Table 9) also has crossing trails while another in Ojców, Poland (Tempelmann-Mączyńska 1985, Type 330, Table 9) has white threads in a single wave.

### 4. RECONSTRUCTING THE BEADS

I was interested to discover how the beads were made and experimented with my hot glass beadmaking skills to make replicas in the same style. The British beads all appear to have been made in a similar way. First the dark glass is melted and wound onto a mandrel. The beadmaker would have had to wind along the

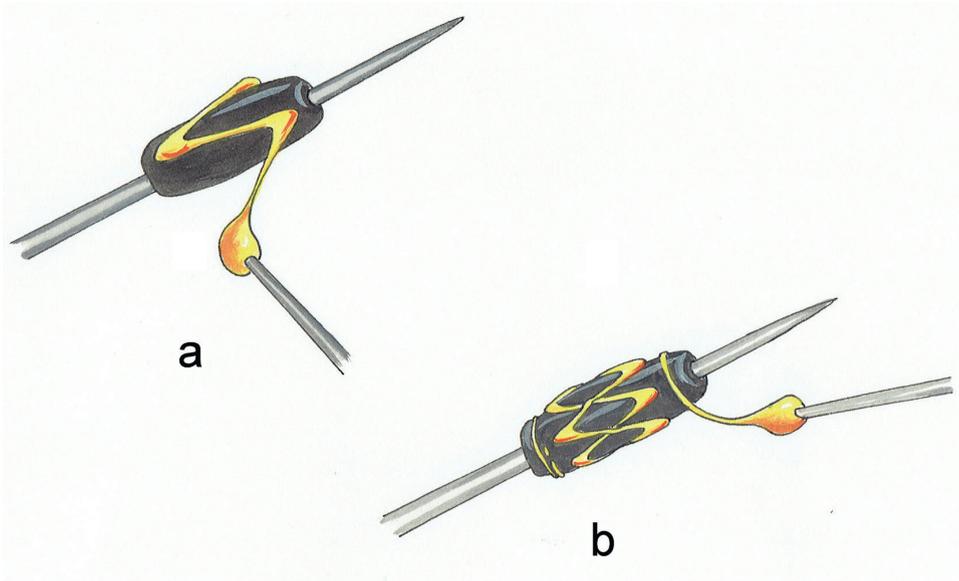


Fig. 15. How the beads are made

a – applying the hot glass threads to the wound glass bead by dabbing the hot glass at each change of direction;  
 b – applying the concentric bands to the ends.

Drawing by Sue Heaser

mandrel for about 2 cms and then wind more hot glass into the centre to make an ellipsoidal shape. The beads are not well smoothed by further melting in the flame and this indicates that either the furnace used was not very hot, or the beads were made quickly.

Next the opaque threads would have been applied. Beadmakers often pull stringers of glass – long thin lengths like spaghetti – to use to create decorations. A hot globule of glass on the end of a pontil is pinched between tweezers and pulled out to make a long thin length. It cools rapidly and becomes rigid. This fine length can then be applied to a hot bead to make spirals, waves and dots. This may have been used in the case of the more regular decorated beads but I found that to simulate the more carelessly applied threads, I had to use a thicker gather of molten glass, about the size of a pea, on the end of a pontil. First I dabbed the coloured glass onto the bead surface and pulled the pontil away so that a thin thread of glass was pulled out of the gather. I allowed this thin thread to fall into place on the bead surface and then dabbed again at the bottom of the wave. This was repeated while I turned the bead on the mandrel and so created a wave pattern. This caused a thicker line at the tops and bottoms of the waves, with a thinner thread between. The concentric lines at top and bottom of each bead were made in the same way but with a single dab down at the beginning and the fine thread that was pulled out was allowed to drop onto the bead surface as the bead was turned (see Fig. 15).

It is interesting to note that many of these beads have broken along the line of the concentric decoration at one or other of the ends. This could have been caused by the bead partially cooling before the hot decoration was added. Lack of sufficient melting in of the decoration or annealing would have caused fractures along this line and the end would shear off in time.

## 5. CONCLUSIONS

The British beads are interesting additions to the known corpus of these beads because they are all from datable levels. The dates are within the date range of those already observed in continental Europe, namely from the 4<sup>th</sup> c. to the 6<sup>th</sup> c. The four beads described here are all very similar to each other. Two are from a 4<sup>th</sup> c. to 5<sup>th</sup> c. Roman cemetery and two from two different pagan 6<sup>th</sup> c. Anglo-Saxon burials. Geographically they are well spread with the Risby bead found in Eastern England and the other three in more Western parts.

It is possible that the beads were brought to Britain by Roman soldiers who were resident in Britain between the 1<sup>st</sup> c. and 5<sup>th</sup> c. The Near Eastern origin of the beads, probably Syrian, ties in well with this theory. The Syrian auxiliary regiment *Cohors I Hamiorum sagittariorum*, was known to have been in Britain in the 2<sup>nd</sup> c. This was a cohort of some 480 men who were specialist archers and came from Hama in north Syria and were stationed on Hadrian's Wall in northern Britain (Birley, 2012). The *Legio secunda Augusta*, which was in Britain for the entire period of Roman occupation, was based first in Gloucester (30 km from Cirencester) and later in Caerleon, Wales. This legion may have had Syrian soldiers as well but since it helped with the building of the Wall at this time, contact between these units is certain.

The fact that so few of these beads have been found suggests they were imported as personal ornaments, perhaps by the wives of the soldiers, rather than traded. The beads found in the later burials would most likely have been heirloom beads, kept and treasured down the generations.

There may be more beads of this type stored in British museums and I will continue to search for them.

### *Acknowledgements*

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