

# Arma

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### EDITORIAL

Again, I must apologise for the tardiness of this issue of "Arma". A spell of ill-health before the Festive Season, coupled with the collapse of my Internet connection (thank you, BT, or whatever they are calling themselves currently) for most of January, has largely put a stop to any editorial efforts on my part.

One problem remains, however. One cannot make bricks without straw. In the editorial for Issue 15/1 of *Arma* I mentioned the paucity of any articles, communications, etc. Sadly, to date this situation has not been rectified. Without any material, there can be no publication. I would therefore urge anyone to please give some thought to proving some copy to me. Thank you. Now, to business.

### NEWS

#### Hadrian's Cavalry

In 2016, ROME C XVIII prepared the ground for Hadrian's Cavalry and now 2017 finally saw the exhibition arrive on Hadrian's Wall. Running from 8th April to 10th September, venues at South Shields, Wallsend, Newcastle, Corbridge, Chesters, Housesteads, Vindolanda, Carvoran, Carlisle, and Maryport all had components of this dispersed exhibition. A stunning array of cavalry equipment was secured for exhibition, including the Crosby Garrett Helmet, the Ribchester helmet, an Amazon helmet, and a wide range of elements of other armour and harness. This means that if you wanted to see everything the exhibition had to offer, you would have to



have visited all the sites! In addition, on 1st and 2nd July the spectacular re-enactment event *Turma!* with 30 Roman cavalry took place in Bitts Park in Carlisle, right next to the site of the former Roman cavalry fort (and later medieval castle).

A booklet on the exhibition is still available <https://is.gd/XCpLKp>.



## Roman Helmets in the Netherlands

If you happen to be looking for a full-colour, 44-page hardback book that features all of the known Roman helmets from the Netherlands, *Romeinse helmen in Nederland* could be just what you need. Even if your Dutch is somewhat wanting, it is mostly colour photographs of helmets so you do not have to worry too much. In fact, why not use it as an excuse for a quick language course?! The book is available for €12.50 from [www.hazenbergarcheologiepublicaties.nl](http://www.hazenbergarcheologiepublicaties.nl). ISBN 9789081868396

## FRAGMENT OF LORICA SQUAMATA FROM AUGUSTA EMERITA (MÉRIDA, SPAIN)

Rafael Sabio Gonzalez  
Curator of the National Museum of Roman Art (Mérida, Spain)

Through these lines, we wish to present a piece of bronze armour recently identified in the funds of the National Museum of Roman Art in Mérida (Badajoz, Spain). The value of the piece lies in the low number of such specimens within the Hispanic patrimony and of any kind of ancient weapons in the excavation sites of Mérida. For that reason, after the description of the object in question, we will make a brief assessment of it within the general context of its discovery, and then, finally, will offer some general conclusions.

The piece that we are facing is composed of three fragments, two of which join, totalling five bronze plates connected by rings, also in bronze, plus a loose ring. The entire plate, of 3.2 cm. high by 1.5 cm. wide and 0.1 cm. thick, shows a rectangular shape topped at one of its ends by a pointed end. Also, each of them is perforated by four pairs of orifices of 0.2 cm. in diameter, near the edges of its four sides and above one another, attending to the correct positioning of the workpiece, with the pointed end of the plates facing down. In five cases, these orifices are occupied by the rings used to tie a plate to the next, both horizontally and vertically. In the entire piece four blades are arranged horizontally, whereas the fifth starts below the one placed at the left end of the second row.

The piece has assigned two numbers within the permanent collections of the museum, namely the 29245 and 29246. Its entry into the institution must have occurred between 1910, the beginning of the excavations of the Roman theatre in the city, and 1936, coinciding with the start of the Spanish Civil War. As it happens with the full range of accompanying pieces, it shares the fate of a large set of objects from the excavations in the city done during these years that remained without being inventoried until the 80s of the twentieth century, losing any news about their exact context of discovery.

Initially classified as simple sheets of metal, it would be during the reorganization and placement in the collection of bronzes from the Museum when the two fragments were linked together, noticing their connecting points, and in parallel, they would be identified as the minimum portion of an armour of *lorica squamata* type. Before their discovery, it was not known in the city of Mérida any vestige of armour, being the remains of any other weapon dating before the Middle Age also scarce. The latter used to correspond with simple spearheads that could have been used for purposes other than the military, such as recreational or hunting.



Fig. 1: Lorica squamata from Mérida, Spain

The explanation for this absence can be well determined for the early imperial period. Augusta Emerita, founded by Emperor Augustus in 25 BC with veterans of the Cantabrian Wars, had as its first settlers soldiers of a highly professional army, which would leave their weapons at the time of starting their new life as settlers. More puzzling is the phenomenon in the turbulent late antique period, and more specifically in the V century, when the city was taken violently by the Swabians, and later would witness their defeat against the Visigoths. After nearly two centuries of relative calm, Mérida re-enters a period of warfare with the entry of Muslims in the Iberian Peninsula and the surrender of the city to the general Musa, in 713, revolving against the central power over the space of a hundred years until the problem would be ended by the powers in Córdoba with the destruction of its walls and the erection of a military compound for control: the Alcazaba.

Our armour fragment belongs to a type apparently born in the East around the turning of the Age. As typological features to highlight we can cite the materials, the form of its sheets or the systems used to join them. Regarding the materials, contrasting the bronze used in our armour, there exist also examples made of iron. Regarding the form, there are both rectangular and provided at one end of semi-circular, polygonal, triangular or pointed terminations, the latter corresponding to our case. Regarding the way of joining them, it may occur only from the top end of the sheet, from this and the two long lateral sides, and finally from its four sides, as in the specimen analysed. A similar piece to the one found in Mérida, both in materials and in form or connection system, is in the Limesmuseum in Aalen.

Provisionally and given the lack of concrete context data for the piece presented here, we can only make a proposal regarding its chronology using the information from its typology and the facts derived from the historical circumstances of Hispania and of Mérida. The findings of Roman armour in Hispania are not very common, and more particularly the type that concerns us, having been published only a few isolated fragments, smaller than ours, found in sites mostly concentrated in the Northwest of the Iberian Peninsula. They also tend to be shaped by semi-circular plates and united only by its upper side, being dated around the early imperial period, quite possibly related to the conquest and pacification of the region. By contrast, in our case, the general absence of weapons in this period and the absence of notable war episodes in Mérida up to the 5th century, together with the uniqueness of our type within the overall Hispanic heritage, would lead us to suggest a dating close to the Late Antiquity.

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## A 'NEWSTEAD LORICA SEGMENTATA ARMOUR FRAGMENT FROM USK

Mark Lewis and Michael D. Thomas

### Historical Background

This note describes a fragment of Roman plate armour with tie-ring and hook (Fig. 1) that was unearthed at Usk, Monmouthshire, during excavations directed by Professor W. H. Manning of Cardiff University in 1973.<sup>1</sup> The excavations were fully published between 1982 and 1995 and the very large assemblages remained at Cardiff University between excavation and 1982, being heavily used for teaching and research. Much of the assemblage underwent conservation at the University's laboratories during this time. From 1982 the archaeological artefacts and archive have been transferred in batches to the National Roman Legion Museum, Caerleon where accessioning and cataloguing have been ongoing.

The fragment of Roman plate armour presented here was noted during routine cataloguing at the National Roman Legion Museum. Recourse to the publications relating to the assemblage failed to produce a reference for the object in question. The object had clearly undergone lengthy investigative cleaning and consolidation work of the highest standard. At some point in the post-excavation process it may have become separated from the rest of the assemblage, perhaps accounting for it being unpublished.

### Archaeological Context

The fragment of plate armour had been packaged post-conservation in a polystyrene 'crystal box' labelled with the Usk context number 'U73 HFN (2) special find 2'. This denotes that the object should have come from layer two of feature HFN.

Feature HFN was a pit and, interestingly, produced a portion of the other published military fittings from the site as well as a lead baggage label.<sup>2</sup> Pit HFN lay outside the Flavian fort and was cut into an area interpreted as a compound next to a *fabrica*, adjacent to the dextral section of the *via principalis* on the side of the *retentura* of the earlier Neronian fortress. The feature was ascribed a *terminus post quem* corresponding with the end of the fortress (its demolition) based on samian ware with Flavian characteristics coupled with other non-contradictory pottery and coin evidence. A counterfeit *as* of Commodus c. A.D. 250 from layer (1) was interpreted as intrusive.<sup>3</sup>

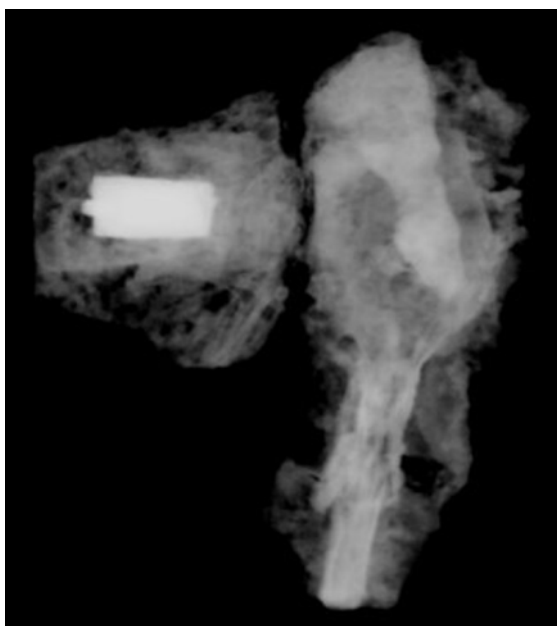
The published military fittings ascribed to HFN (2) have been given a pre-Flavian assignation<sup>4</sup> where this is referenced to the dating evidence outlined above rather than being derived empirically from the identifications of the fittings. The greater portion of the Usk ring mail (*lorica hamata*) came from pit HFN.

There appears to be no reason to doubt that the packaging labelled 'U73 HFN (2)' relates to this object as found. However, it has not been possible to identify positively the object in the original site records to confirm this. The assignation of significant numbers of other military fittings to pit HFN perhaps lends support to this object having come from this context. However, possible separation from the rest of the HFN artefacts, resulting in it not being published, does present the possibility that its assignation to this context could have occurred through misattribution at some point during the post-excavation period. The object neither appears in the published context nor special finds lists or in the published catalogue.

There are two implications from the current state of knowledge. One is that the object is correctly recorded as having come from HFN (2) and thus potentially provides additional dating evidence for this context. Alternatively, the object was discovered during excavation of a different context and became mixed up with the HFN (2) assemblage during the post-excavation period. Such a scenario *could* account for its absence from the published catalogue, small finds listings, context listings and failure to track the object back through the conservation records and X-ray archive at Cardiff University. However, that the object was excavated at Usk is thought to be beyond doubt because no other Roman military armour fragments are thought to have been at Cardiff University that cannot be accounted for.



*Fig.2, Usk lorica segmentata girdle plate with tie loop & hook.*



*Fig.3: X-ray, showing the base of the tie-loop (brass) and the hook (brass) on the adjacent plate.*

## Description and discussion

The so-called 'Corbridge' form of the Roman plate armour is comparatively well represented in the archaeological record at Roman military sites of the 1st and 2nd centuries AD, not least by the complete examples recovered from the eponymous site.<sup>5</sup> The later 'Newstead' form of Roman plate armour, however, is less well known and to date no complete examples of the armour have been recovered. It is accepted that the 'Newstead' form differs in several important respects from the earlier 'Corbridge' type.<sup>6</sup> For example, the breast plates and back plates were larger, and the small lobate-form shoulder hinges (approx. 25–30mm square for each hinge leaf) of the earlier 'Corbridge' type become hinges that were almost twice the width and depth, and which were much more angular at the top as compared with the more graceful volutes of the earlier variant (though still, basically, of the same form).

A second development concerned the method of closure of the front and back girdle plates. The earlier arrangement of two rows of hooks or loops riveted to the lower ends of the girdle plates at the front and back, was apparently replaced by a single row of cast copper alloy rings. Each cast copper alloy ring fitting was provided with a tang (or, using riveting terminology, a 'tail'), which was passed through a slot



in the end of one plate and was then hammered over ('upset' or 'bucked' in riveting terminology) behind the plate like a rivet, creating the 'shop head' or 'buck-tail'. The ring itself passed through a narrow slot in the opposite, matching, wrought iron lorica plate (which appears to have been ?protected or decorated with a copper alloy plate). It was probably maintained in position by something like a split pin. This system has only comparatively recently been observed in an actual find.<sup>7</sup> This arrangement represents a more secure method of closing the girdle plates as it does not rely on the vulnerable leather laces used to link the hooks together. It also means that the girdle plates overlap, thus eliminating a dangerous gap between the ends of the armour plates.

The method of suspending the girdle plates from the lower edges of the breast and back plates was, seemingly, little different in the two types. For both the 'Corbridge B' and 'Corbridge C' types, as well as the 'Newstead' form, vertical fasteners were riveted to the top of the uppermost girdle plates. These were passed through fitments on the chest and back plates; either a copper alloy loop that descended below the bottom edge of the chest/back plates or a hole in the plate itself (again, in the latter case, protected/decorated with brass plates). However, with 'Newstead' armour, there is now evidence from Stillfried that the vertical suspension hook passed through a hole in the girdle plate itself and the plate of the fitment was therefore attached to the rear of the girdle plate.<sup>8</sup> Again, this arrangement eliminates a gap in the armour protection.

The rest of the plate armour recovered from the Usk site<sup>9</sup> has always been assumed to be of the Corbridge variety. The site was initially a Neronian legionary foundation. Certainly, the published lobate hinges are of a size and shape that are consistent with this model, although one of the hinges is very poorly formed and may just be a temporary repair.<sup>10</sup> A tie hook was also found at Usk, clearly from the earlier form of armour.<sup>11</sup> The wrought iron armour plate fragments, however, were of too small in size to assign to any particular armour type.<sup>12</sup>

The object from context HFN (2) which is the subject of this note (Fig. 1) is recognisably from a 'Newstead' armour set. The stump of a broken copper alloy tie-ring is clearly present. The ring itself has broken away, leaving just the shoulders and tail attached to the armour plate. This shows very clearly on the X-ray photograph as an opaque, rectangular feature, (Fig. 2). It can be seen that the tail passes through the plate, and it has been hammered over on the reverse side. Tie-rings are generally much less common in the archaeological record than the tie-hooks of the Corbridge armour.<sup>13</sup> It is rare for tie loops to be recovered *in situ* on armour plate. Examples exist from Caerleon Priory Field (Guest and Gardner, forthcoming), at Carnuntum<sup>14</sup> and Stillfried.<sup>15</sup> With the single exception of the Stillfried find, there is no unequivocal case where a vertical fastener is known to originate from a 'Newstead' armour set. This find, therefore, represents an interesting and potentially important addition to our information.

In the present object, the vertical suspension hook, though flattened, is passing *through* a fitted, square, hole the girdle plate. The X-ray photograph (Fig. 2) shows this. The coincidence of the cast tie ring and the vertical fastener hook on the same piece of armour is therefore of some importance as it confirms that this was indeed the method used for attaching the girdle plates to the chest and back plates in the case of this example of 'Newstead' armour.

It is also worth noting that the reverse side of the Usk armour plate clearly has some organic matter (in the form of plant remains, possibly stems of grass/hay?) attached that has become mineralised over time. There has been some speculation that armour was padded at the rear. There is, for example, at least one instance (Carnuntum) where scale armour (*lorica squamata*) has been found with organic material adhering to the rear of the metal plates.<sup>16</sup> If the organic remains on the Usk object were originally associated with the plate as padding, this would appear to be the first instance that has come to light where there are indications that this practice was also used with lorica segmentata armour. However, it is most probable that the preserved organic represents packing material for storage or other, non-associated, organic matter thrown into the pit, regardless of its preservation on only the internal face of the plate. No obvious textile preservation is apparent. Lorica plates from pit HSB (2) at Usk (Webster, J. 1995. *Lorica Segmentata*. In Manning, W.H, Price, J. and Webster, J., *Report on the Excavations at Usk 1965-1976 The Roman Small Finds*. Cardiff: University of Wales Press, No 5, 7.) have similar 'grassy' mineral preserved organic on both internal and external surfaces of the plates.

Finds of Newstead armour are dated exclusively to 2nd or 3rd century AD contexts.<sup>17</sup> None have been

found in Neronian contexts. Clearly, the object under discussion here has potential significance for the later Roman occupation of Usk (*Burrium*) and, perhaps, its ongoing relationship with Caerleon and *Legio II Augusta* to the south. The finding of a coin of Commodus<sup>18</sup> (albeit counterfeit) in the same pit could be taken to suggest that both it and the armour fragment might possibly be later intrusions into Neronian layers. A late 2nd century date (Commodus, AD 180–192) is not inconsistent with the use of the Newstead form of *lorica segmentata*. Furthermore, notes preserved in the 1973 Usk site archive state that context HFN (1) contained ‘a few later looking Roman sherds and one medieval sherd.’ Context HFN (2) contained pottery which comprised ‘worn and abraded Roman early sherds, and orange pot with grey core – like Severn Valley’ ware. Context HFN (3) produced ‘1st phase sherds, some in quite good condition – including jars and a lid – odd indeterminate pieces and 1 medieval ?intrusive sherd.’

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## Notes

- 1 Manning & Scott 1989.
- 2 Ibid. 18 & Figs. 10 & 11. For lead label, also see *ibid.* 126.
- 3 Boon & Hassall 1982, 39, No. 311 and *ibid.* 20.
- 4 Webster, in Manning *et al.* 1995, 10–14.
- 5 Allason-Jones & Bishop 1988.
- 6 For a detailed examination of the differences between the various sub-types of armour, see Bishop 2002.
- 7 Eibner 2000.
- 8 *Ibid.* 33.
- 9 Manning *et al.* 1995.
- 10 *Ibid.* 6–7 & 10.
- 11 *Ibid.* 8.
- 12 *Ibid.* 9–10.
- 13 Thomas 2003, 91, 109.
- 14 von Groller 1901, Taf. XVIII, 28, 29.
- 15 Eibner 2000. The armour from the Stillfried site consists of two miss-matched half-sets of girdle plates, one with seven and the other with eight plates. The tie-loops, vertical fasteners and copper alloy plates (surrounding the slots in each plate end) are all present.

- 16 Russell-Robinson 1975, 157, citing von Groller 1901.  
 17 Bishop 2002, 49.  
 18 Manning & Scott 1989, 20.

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## MUSEE DE MOUGINS - A TREASURE TROVE

Paul Purnell

Students of Military Equipment and Arms may be surprised to learn that one of the finest collections of historic weaponry and armour is lodged in the Musee de Mougins near Cannes in the South of France.

In 2008 an enthusiastic collector Christian Levett decided to bring his wonderful collection together in a house in this village where Picasso and other artists had lived. Mr Levett is an English Benefactor with a fondness for the Cote d'Azur. His project was to find a suitable location.

The collections included: Egyptian Funerary objects; Roman and Greek statuary; numismatic historic pieces and several more categories of superb quality. For this note, the focus is upon Armour and Equipment from several eras of History. This is housed on the second floor of the building which is an ancient Mas (or manor house) in the centre of the village. Photographs give something of the layout of this part of the museum.

The collection is so large that the present gallery has a difficulty in displaying such quantities of superb items due to the limitations of the building. The museum was beautifully adapted to its purpose but the space is hardly enough to show each object to its best advantage.



Fig.4: General view of the museum.



Fig.5: Imperial Italic helmet Fig.6: Imperial Gallic helmet



On a personal note, one of my favourite objects is a Celtic shield, battered and pierced with battle damage. It is fascinating to compare it with the Wandsworth shield from the British Museum – contrasting a perfect votive offering with the real thing.

There are examples of weaponry and horse armour from different cultures but no example of a Roman saddle itself (although perhaps not an exceptionally original design.) The intact Parade helmet (on loan) might cause some questions in some specialist's minds. But I am not competent to pass an opinion.

It is impossible to do more than give a flavour of the huge spread of marvellous exhibits housed in this beautiful site. You should go.

## BOOK REVIEW

The Editor

### **M.C. Bishop, *The Gladius – The Roman Short Sword*, 2016. Osprey Publishing, ISBN 978-1-4728-1585-9**

For those who may be unfamiliar with this series of booklets (of which there are several hundred published to date), each is, in effect, a monograph on the subject. Most of the volumes deal with 'uniforms' throughout the ages and a not inconsiderable number have as their subject the Roman period. The volume under review here is a part of the series devoted to weapons, their development, use and impact.

The format of these books is basically the same. They are generally around 80 pages in length and tend to be profusely illustrated with photographs and/or line drawings. A feature is a set of colour plates of paintings (of which there are six such here, four of these being arranged as two double-page spreads). These are often centrally placed but in this instance, they are more dispersed throughout. Here, they show the *gladius* 'in action', so to speak. There are numerous colour photographic depictions of the actual remains of weapons, together with their scabbards and scabbard fitments. Of surprise to this reviewer was the sheer number of these weapons that have survived, often in a remarkable state of preservation. There are also photographs of modern reproductions of the swords, together with their scabbards, etc. Many of these photographs and the drawings have been provided by the author and are of a consistent high quality.

The book begins with a short introduction that stresses both the physical effect of this weapon as well as the moral effect that it had on enemies thanks to its terrible efficiency. Also mentioned is that, like many other aspects of Roman military equipment, great strides have been made in recent years in better understanding the evolution of such things.

The next chapter is concerned with the development of the weapon. The clue is in the name – *gladius Hispaniensis* or 'Spanish sword'. It is well known that the Romans were adept at 'adapting' equipment from elsewhere, where this suited them. They were an eminently practical people! Clearly, the Romans were impressed by swords they encountered during the Punic Wars in Spain and decided that they were a good bet. We are taken carefully and clearly through the changes that the *gladius* went through in the mid-Republican period (2nd century BC), the late-Republican (1st century BC) and then on into the Imperial period where we encounter the 'Mainz' and 'Pompeii' patterns of blade. Of particular interest and value here is a table (p.31), listing a number of weapons, together with detailed measurements and where they may be found today.

Following on from development, we come to use. From the earliest times, it is clear from skeletal evidence of the unfortunate victims of this sword in battle that this was a formidable and lethal blade. Subsequent changes seem to have made the heavier blades lighter and more suited to a stabbing action rather than a cutting or slashing one. This is so clearly illustrated by the *metopes* from Adamclisi in Romania (several of which are illustrated here with high-quality photographs, demonstrating the sword in

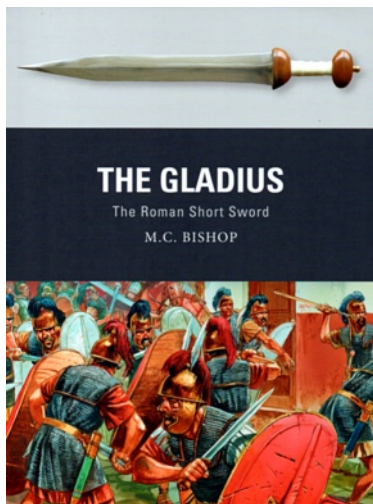


Fig.7: Review Osprey

action) where it is all too evident what a terrifying weapon this could be in the hands of professional soldiers. The chapter goes on to describe the carriage of the swords, evidence of ownership, details as to manufacture, drawings of the scabbard decorations and the care and maintenance of the weapon and how the soldiers trained to use it.

The final chapter is concerned with the impact of the sword, both literally and figuratively – ‘The sword that conquered an empire’. In some ways, this chapter is the most interesting of the book. We tend to concentrate on the sword blades and their shapes but forget about the handle. Bishop points out that the latter was very ergonomically designed, fitting the hand perfectly – an important consideration where it could become slippery with blood. Then there is the question of balance. Fighting for any length of time with a heavy and unwieldy weapon would quickly tire a soldier out, no matter how well-trained he was.

The book ends with a short conclusion section, which includes a useful glossary as well as a very extensive bibliography detailing both ancient and modern sources. This volume forms a very concise and entertaining description of the Roman short sword, all wrapped up in a well-illustrated format that doesn't break the bank. It should be on the bookshelf of anyone with an interest in Rome and her army.

## XANTEN MUSEUM, GERMANY

Marcus Didius Falco

Not exactly on the beaten track but well worth a visit. The museum is a modern steel-and-glass construction, which lies within the boundaries of the Roman fortress. Leading off from the ground floor are ramps that take the visitor to the upper galleries and displays. These are packed with items of Roman militaria. So, what can the visitor expect?

One of the highlights has got to be the display of helmets. Most museums might have one or two. Not so Xanten. There are no less than nine Coolus helmets, as well as a couple of Imperial Gallic types, two Montefortinos and four cavalry helms. One of these last is a Neiderbieber type, another is the famous one with the simulated hair and the small bust right in front. The Coolus helmets (eight of them, anyway) are displayed on either side of a kind of tunnel. Between each helmet there is a TV display running in each case a short film on a loop. These show Roman soldiers (obviously, re-enactors). All the ‘actors’ are speaking in Latin! This adds a certain ‘something’ to the experience.

There are, of course, other items that catch the eye. There is, for example, a set of *phalerae*. Although incomplete (there are only three discs) they are beautifully made. One of them is made of a royal blue glass. Another rare item is the business end of a scorpion artillery piece, virtually intact with all four bronze tensioning washers present and the wooden frame behind the brass frontal plate still in place. For the armour ‘buff’, there is the famous upper chest or back plate and shoulder guard from a *lorica segmentata* set, together with various hooks, buckles and plates.



Fig.8: The museum, external view.

Fig.9: Scorpion torsion catapult

Fig.10: Coolus helmet

The displays also feature several reconstructions of various items. One of these is the helmet, originally from Syria, where the skull of the helmet is covered with animal hair. Robinson categorised these helmets as 'Cavalry Sports, Type 'D''.

Of course, there are the everyday objects that one would expect; things such as pottery, glassware, keys and locks, pieces of painted wall plaster. Also displayed are weapons such as spears, swords and daggers. There is also an extensive display of grave stele and altars. These show evidence of at least one auxiliary regiment (*ala I Noricorum*) as well as examples of various legions once based here (*VI Victrix*, *XXII Primigenia* and *XXX Ulpia Pia Fidelis*).

To one side of the main museum, there is a covered section that displays the excavated Roman remains of the baths complex. These show the usual hypocaust system of the *caldarium* (also shown as a reproduction) as well as two excellent models, displaying both the baths complex and how it fitted into the area of the site itself. However, it would be a mistake to limit a visit to the enclosed museum alone. Outside is an extensive 'archaeological park' where there are reconstructed buildings (including a *mansio* where it is possible to have a 'Roman' meal). There is an amphitheatre, a *principia* building and a number of outdoor exhibits, such as a mule/pony carriage and farm cart. They also have displays showing Roman construction methods with different methods of roofing buildings and constructing walls. One 'experiment' consisted of a building, which was thatched and then left to rot and collapse, the idea being to see over time what a ruined building would look like. There is also a rotary corn mill and a bread oven – all faithfully reconstructed. Lastly (and importantly), there is a large children's playground area! Don't laugh, this is most essential – youngsters have a limited attention span where Roman remains are concerned!

It is easily possible to spend a whole day exploring this important historical site and its museum. There are arguments to be made as to whether buildings should be reconstructed on the Roman foundations. Here, it seems to work. The site is so large that without the reconstructions it would be extremely difficult to visualise things. Nevertheless, this is a site that should not be missed.

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## CONTACT

Old-fashioned snail mail contact can be made by writing to the editor

or by email at

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