

Arma

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NEWS

ARMES formation



Welcome to the new-look *Arma*! ROMECS XVIII saw the announcement of the intention to form the **Association for Roman Military Equipment Studies (ARMES)**, and that, finally, is what has happened. Following a successful Indiegogo campaign to relaunch *JRMES*, *Arma* is now the biannual newsletter and *JRMES* the annual publication of ARMES.

A temporary committee has been formed to see us through to the next ROMECS when permanent officers can be elected. Full details of the constitution, committee, contact details, interim officers, and subscription rates will eventually be available at the new association website www.a-r-m-e-s.org.

In the meantime, we are working towards first the publication of the long-delayed *JRMES* **14/15** (to appear spring 2015), then *JRMES* **16** (summer 2015), before restarting *JRMES* (possibly with a New Series numbering, as N.S. I, but that remains to be decided) in early 2016. That new volume will contain the topical papers from ROMECS XVIII, held in Copenhagen. As in previous years, it is anticipated that the next *JRMES* after that will then contain general papers.

Corbridge Hoard Re-displayed

The Hoard case at Corbridge Roman Site Museum (Northumberland, UK) has undergone a welcome makeover which includes a new digital reconstruction of the armour. Some more of the Hoard material can be seen in the Great North Museum in Newcastle (which has replaced the Museum of Antiquities).

The Crosby Garrett helmet

A day school on the subject of the Crosby Garrett helmet was held at Tullie House Museum in Carlisle (Cumbria, UK) on **9.11.2013**. The helmet was found in 2010 and achieved notoriety for its hammer price of £2.3 million. The day school covered the discovery and conservation of, as well as parallels for, this unique cavalry sports helmet, but also examined the wider background to those cavalry exercises described by Arrian in his *Tactica* (as the *Hippika Gymnasia*) and by Hadrian in his surviving *adlocutio* from Lambaesis in North Africa. It coincided with the exhibition of the helmet itself in Tullie House from November 2013 through to January 2014 and was accompanied by a full-colour booklet (*The Crosby Garrett Helmet* published by the Armatura Press) describing the find briefly (Breeze and Bishop 2013). The helmet was subsequently displayed at the British Museum, alongside the Ribchester Helmet, from February through to April 2014. After its exhibition at the BM, the helmet was photogrammetrically scanned. A full publication of the Tullie House conference is intended in due course. (Image M. C. Bishop)



BM Life and Death in Pompeii and Herculaneum

The British Museum's *Life and Death in Pompeii and Herculaneum* exhibition ran from **28.3.2013 to 29.9.2013** and included the sword, dagger, belts, and tools of the Herculaneum 'soldier' (marine?) found on the former beach at that town.

Harzhorn

After the discovery by metal detector (and subsequent careful excavation) of the Varusschlacht battlefield site at Kalkriese (Germany), detectorists subsequently found another intriguing site at Harzhorn (also in Germany). It belongs in the 3rd century AD. With many rich finds of equipment, it was described in an exhibition (*Roms vergessener Feldzug*) held **between 1.9.2013 and 16.1.2014** at the Landesmuseum in Braunschweig (Germany). The exhibition catalogue is included below in the *Arma* bibliography.

Hadrian's Cavalry

A new distributed exhibition on the theme of Roman cavalry is to be mounted across several venues along Hadrian's Wall during 2017. Funding of £690,000 was announced by the Arts Council England which will leave £100,000 to be raised from gate money or donations. Besides exhibits, there will be re-enactment events, including a recreation of part of the *hippika gymnasia*.

New Editor for Arma

With the formation of ARMES bringing some changes, now seems an appropriate time for some fresh blood at the top at *Arma*. From Volume 15 (2016), Dr Mike Thomas will take over from Mike Bishop as Editor, although the latter will continue supervising production of the newsletter.

ROMECS XVII PROCEEDINGS

The proceedings of ROMECS XVII (held in Zagreb, Croatia in 2010) were actually printing at the time ROMECS XVIII was being held and although it was hoped actual physical copies could be pressed into our clammy little hands whilst we were there, we had to content ourselves with CDs containing PDFs of the papers. Nevertheless, contributors received their copies soon after. Sadly it is now virtually impossible to obtain in the UK (the consistent fate of all ROMECSs not published in *JRMES*, it should be noted).

ROMECS XVIII REPORT



ROMECS XVIII was held between 10.6.2013 and 14.6.13 in Copenhagen (Denmark) as was hosted by the National Museum with the theme of *Imitation and Inspiration*.

The first day of lectures on **Monday June 10th** saw the conference opened by the director of the National Museum, followed by a keynote speech by Carol van Driel-Murray and then sessions on Armour and then Horses and horse gear. The day was rounded off by a boat trip along the canals of Copenhagen and a chance to see the Little Mermaid.

Tuesday June 11th brought sessions on Dress, Belts & Buckles, Germanic versus Roman, Rituals and deposits, and finally Catapults. In the evening there was a reception in the splendid winter garden of the Ny Carlsberg Glyptotek and an opportunity to see part of its collection, including the 'Danish Hornblower' (delegates expecting an easily embarrassed naval officer were, however, in for a surprise).

On **Wednesday 12th June**, the conference took to the road, with two coaches conveying delegates across Denmark to near Aarhus, in order to visit the new Moesgard Museum, which is still under construction. Although we could not go inside (all building sites look much the same) we saw a visualisation of the final display and then, as a special treat, were able to inspect some of the Illerup finds in the library of the old museum, which is to become part of the university. The journey out was broken by a coffee break at the stunning Nyborg Castle, a brick structure within *trace italienne* artillery defences. The journey home was made via the battle site at Alken Enge, where delegates were treated to a description of the excavations to the accompaniment of a nightingale and a cuckoo!

Thursday 13th June saw sessions on Swords, Iconography, and Army life, and the evening was rounded off by a conference meal at the atmospheric Ravelinen restaurant, overlooking the moat and defences of Copenhagen. A highlight was a stunning flashmob song and dance performance by the Copenhagen Glee Club (<http://bit.ly/1FwhVkh>).

The final day of the conference, on **Friday 14th June**, consisted of a morning session on specific locations and collections. The conference organisers were thanked, floral bouquets thrust into their hands, and most delegates then dispersed, although a few stayed on to visit Roskilde at the weekend.

Papers were presented in the museum lecture theatre and posters were on display in the spacious museum atrium. Attendees were free to roam the collections when they felt the need, although it was preferred if they refrained from drooling on any of the cases stuffed full of wonderful finds.

ROMECS XVIII was superbly organised by Drs Thomas Grane and Xenia Paulli-Jenssen and its smooth running impressed all fortunate enough to attend. The proceedings will be published as a volume of *JRMES* in 2016.

ROMECE XIX ANNOUNCEMENT

Attendees at ROMECE XVIII were witnesses to the announcement of the proposed location of ROMECE XIX in 2016 in St Andrews (Scotland). The main conference topic will be *Cavalry in the Roman World* (extremely apposite, in the light of the upcoming 2017 exhibition *Hadrian's Cavalry*: see **News** above) but, as ever, all papers will be welcomed.

OFFERS TO HOST ROMECE XX

With a firm proposal for ROMECE XIX now made, it is time to be thinking about ROMECE XX. We already have one tentative suggestion, but further ideas are always welcome and should be consolidated in time for being offered to the ROMECE Committee at St Andrews in 2016.

VON GROLLER'S WAFFENMAGAZIN

M.C. Bishop

This paper was originally presented at ROMEX XVII at Zagreb in 2010.



In British archaeology, there are basically two ways of dealing with what we now, slightly alarmingly, call heritage assets. First, there is Preservation In Situ. That means you leave it alone until the archaeologists of the future are better equipped to deal with it (presumably with tricorders and starships). This, you will have noted, is a euphemism, but it is not as impressive as the euphemism we use for actually digging something. That is called Preservation By Record, although we used to call it Excavation. Implicit in this terminological long grass is the assumption that by recording a site adequately (define that how you will), you in effect preserve it.

So, I am going to tell you a story of preservation by record. But also, apparently, a tale of preservation in situ. The best of both worlds, it would seem. My story begins with a man working in the topographical survey for the Austro-Hungarian army, a role comparable with the Ordnance Survey and its relationship with the British army. Just as Osbert Crawford became the Ordnance Survey's archaeologist and carved out a name for himself as a pioneer of aerial archaeology, partly due to his experience as an observer with the Royal Flying Corps in the First World War, so Oberst Maximilian von Groller-Mildensee (left) applied his professional

experience to archaeology in his later years.

It will not have escaped your notice that the study of Roman military equipment can, effectively, be mapped by the occurrence of individuals who came to have a profound effect upon the field. When I began studying military equipment, my list (in no particular order) included Henry Russell Robinson, Günter Ulbert, Graham Webster, Pierre Couissin, and Max von Groller. I subsequently added Ludwig Lindenschmit and, I suppose, Justus Lipsius for good measure, but would still present the laurels for Father of Roman Military Equipment Studies to what would doubtless be a baffled Lindenschmit. Von Groller, however, was working at that pivotal time in Roman military archaeology when the German-speaking nations led the way and the British, mustered behind the formidable figure of Haverfield, were racing to keep up. The years between 1895 and 1900, for example, saw major excavations at Aalen, Buch, Carnuntum, Housesteads, and Lorch, amongst a long list of sites to which I'm sure you can add your favourites.

Von Groller was born in Prague on June 5th 1838 and died on May 20th 1920. At 20, he took part in the

Italian campaign of 1859, serving in the 6th regiment of artillery of the Austro-Hungarian army. He went on to act as an instructor at the military academy between 1864 and 1866 and then in the Armeestand (an inter-service organisation) from 1881. He joined the military geographical institute and from 1888 was involved with delineating the Hungarian-Romanian border. By 1890 he was in charge of the topographical division of the military geographical institute, from 1896 with the rank of Oberst (for Anglophone members of the audience, that equates to a colonel). With a pedigree like that, you would expect his surveys and excavation plans to be rather good. Indeed, in 1897, his developing interest in archaeology saw him appointed as head of excavation at the newly formed Limeskommission in the philosophical and historical section of the Akademie der Wissenschaften in Vienna. His practical knowledge of construction and engineering, as well as surveying and planning, put him in good stead during his excavations at Carnuntum and Lauriacum and saw him become a major early contributor to the *Römische Limes in Österreich* series of publications (Groller 1900; 1901; 1902; 1903; 1904; 1905; 1906a; 1906b; 1907a; 1907b; 1908a; 1908b; 1909a; 1909b; 1910; 1919a; 1919b; 1924a; 1924b; 1925a; 1925b; 1925c).

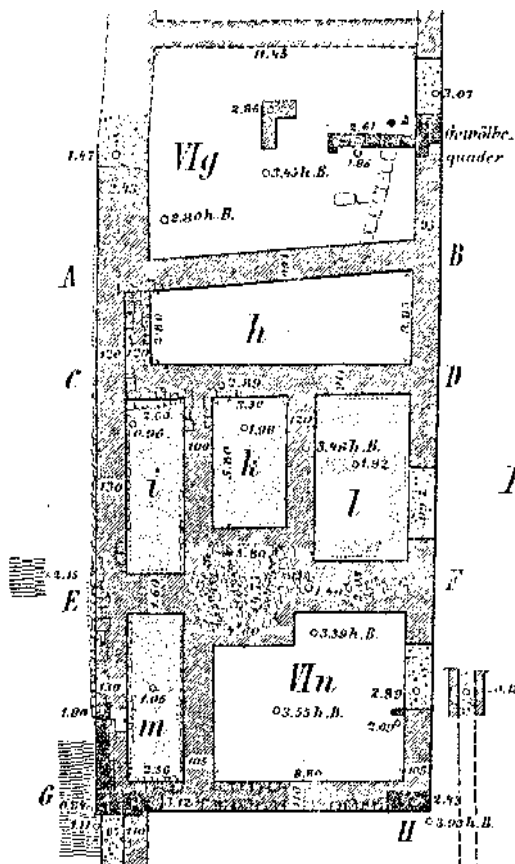


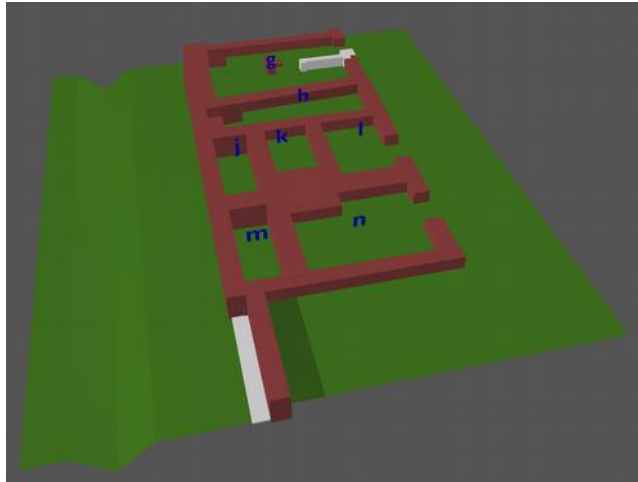
Fig. 1

So it was that, in 1899, he came to be excavating in a rampart-back building on the western side of the *retentura* of the legionary fortress at Carnuntum. He notionally divided this 100-metre-long narrow structure into several separate buildings: Buildings IV, V, and VI. There was nothing special about IV and V, but with Building VI he made a rather unusual discovery; one which still has profound implications for the study of Roman military equipment to this day.

As von Groller saw it, Building VI comprised seven rooms. It was on two levels and built directly into the structure of the fortress wall. Indeed, his plan shows an earlier fortress curtain wall that had evidently been reduced to its foundations at some point before the construction of this new edifice which projected beyond it. At the northern end was room g, which had underfloor heating, and he speculated that it may have been used as an office. Room h, immediately south of g, was ultimately interpreted as a handling area, although no obvious doorway was noted. The western rooms (i and m) were at the same level as the berm, immediately outside the fortress wall, whilst the others (k, l, and n) were some 1.4m higher and level with the fortress interior (Groller 1901, 39–44).

Within rooms i, k, l, and m was a layer of iron oxide between 0.2m and 0.3m deep. Within this rust was the famed collection of arms and armour. Crucially, it was differentiated between the rooms. Room i had evidently contained arrows and shields, l spears, m helmets and 'lorica segmentata', and k a selection of items. Room n at the southern end seems to have been used for the storage of cereals. One of the strangest details he found was in room m, which was a window through the outer defensive wall, set 0.9m above the level of the floor and the berm, and divided centrally by a mullion. Within the oxidised layer in k, von Groller noted voids marking the wooden uprights of shelving had been preserved along two long sides and one short of the room. At Corbridge, on the other hand, the planks of the Hoard chest (and all the wooden objects within) were mineralised by proximity to so much iron oxide. The Carnuntum shelves, the reconstructed plan of which can be approximated from his description, were 0.45m wide and had uprights of 50–60mm in diameter spaced between 0.7m and 0.8m apart (Groller 1901, 42).

Thus one level of shelving occupying three walls within room k would provide 6.3 square metres of storage space. There must have been at the very least one level of shelving and the floor beneath available for storage, but the room could presumably have permitted perhaps three or even four levels of storage, so possibly more than 25 square metres of storage space. This serves to explain why so much material was found in Building VI, which von Groller – not surprisingly – dubbed the *Waffenmagazin* (or armoury). His list of contents is impressive: 121 chunks of scale armour, 302 of ‘*lorica segmentata*’, 14 of what he called *Drahtpanzer* or literally, ‘wire armour’, probably a misinterpretation of heavily corroded mail: two fragments of obvious mail; 10 of armguards; 62 of shields (mostly bosses); one bronze humeral (as he termed it); 58 pieces of helmet; 13 from swords; five from daggers; 38 from shafted weapons like spears; 11 fragments of pilum; 40 spear butts; 209 arrowheads; and 166 miscellaneous items (which clearly included pieces of composite bow, amongst other things). This makes a grand total of 1,052 pieces (Groller 1901, 41–4).



I spent one day producing a crude three-dimensional reconstruction in order to become more familiar with, and permit a rudimentary ergonomic analysis of, the structure. Three thresholds gave access from the outside for rooms g, l, and n, and it was clear that g was further divided with possible internal doors allowing a lobby and, possibly, outer office. The ground plan gives no hint of how the rooms h, i, k, and m were accessed, although the massive masonry core at the centre of the last three may be significant. Von Groller commented that Hofrath Benndorf thought it was the base of an artillery emplacement, although he – who had of course served in the artillery – was clearly not impressed by

this conjecture. The puzzle of the apparent lack of access to rooms i, k, and m might be solved by that central 4m by 5m masonry block, if it was associated with steps. It may be significant that the shelves lined only three sides of room k. Access to them would then have been through room n, whilst l had an external door, which begs the question of why access to that room, which contained spears, was arranged differently to the others. Room h, with no obvious access, remains an enigma, as some things in life always should.

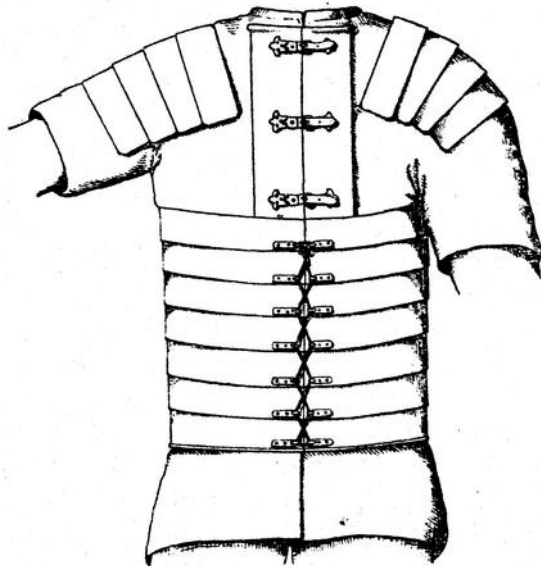
Von Groller noted that the deposit was probably caused by the catastrophic destruction of the building, possibly by fire, and the subsequent collapse of the shelves and their contents onto the floor. But what he was unable to answer, and still remains open to question today, is the matter of the date of the event and thus that of the deposit. His report is not much help in forming a detailed appreciation of the stratigraphic sequence, although he does note that the lowest layers associated with the collapse were overlain by roofing material and plaster.

So much for the archaeology of the structure. Von Groller published a detailed and beautifully illustrated account of the find itself, the work known as *Römische Waffen*, and this appeared only two years after the

excavation. Amongst other things, it contained the first serious attempt to understand and reconstruct segmental body armour.

The key to understanding the Waffenmagazin deposit (although not necessarily the whole structure – the deposition of artefacts is, after all, event-driven) has to lie in the nature of the deposit and its inventory. So what do the contents of that deposit tell us? It is, in fact, one of the rare demonstrable examples of accidental loss. The material had not been chosen for deposition for some ritual or practical purpose, such as recycling, but rather was selected for storage and just happens to have been preserved as a snapshot of that choice. It is, as such, innocent of any intention to deposit it.

What then can the material tell us about itself? First it is overwhelmingly composed of armour and weapons, not personal items or horse harness which otherwise form a significant, perhaps even dominant, component of most Roman military sites' finds spectra. There are examples of the three main types of armour in common use amongst legionaries (mail, scale, and segmental), along with shields and helmets. The weaponry includes *pila* and spears, as well as archery equipment, swords, and daggers (Groller 1901, 41–4).



So to the legacy of the find. The occurrence of both Corbridge and Newstead types of 'lorica segmentata' within the Waffenmagazin not only confused von Groller in his attempts to understand this armour, but also Webster and, initially, Robinson. The discovery and conservation of the Corbridge Hoard, in turn allowing the reinterpretation of the armour excavated by Curle at Newstead, made it clear that different types of cuirass were involved. Their occurrence together, however, remained enigmatic, until the acceptance began to grow that the types overlapped chronologically and that, whilst the Corbridge form mostly belonged in the 1st century AD, and the Newstead in the 2nd, there was clearly coexistence. This has been dramatically confirmed by the excavations at the Carlisle Millennium site, recently published, where Newstead armour came from Hadrianic levels within the fort. Now, moreover, the evidence from Spain and, to a lesser extent, Britain,

suggests this contemporaneity may have been quite long-lived, from the beginning of the 2nd century through to the beginning of the 4th. This, you will note, does not help with dating the Carnuntum deposit very securely.

Could von Groller have pre-empted Robinson's interpretation of 'lorica segmentata'? The answer has to be no (*above and right*). He was too much a victim of contemporary scholarship and lacked the detailed knowledge base of a practising armourer. My guess at the date of the Waffenmagazin deposit – for that is what it ultimately comes down to – has to be 2nd century. As for preservation by record: I can only hope my published excavation records will look as good in 110 years' time as his do now.

Afterword

An interesting alternative interpretation of the Waffenmagazin has been published by Christian Gugl (2011) and merits consideration. It can conveniently be found on Academia.edu at <http://bit.ly/1antPUG>.



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THE INTERNET OF THINGS

A phrase that suggests the unlimited joys (or hell) of having all domestic appliances networked has a alternative, double meaning when it comes to perusing the antiquities market and the related world of metal detecting. In the latter respect, a welcome addition (by most) in recent years has been the Portable Antiquities Scheme, financed by the UK government and administered by the British Museum, which places details of the finds it records on the web and publishes an annual summary of Roman material (including military artefacts) in *Britannia*. The PAS can be found online at <http://finds.org.uk>.

The PAS provides information about the things we know we know. But what about the things we know we don't know? More troubling, perhaps, are the various finds that drift into the antiquities market, only to disappear again. Many are fakes, most are mundane and unremarkable, but some are exceptional and answer questions that excavated items have never even suggested needed asking. A good, if somewhat bizarre, example of this last kind of artefact is a large pendant with a series of small pendants hanging from it. The style of decoration might suggest a Tiberio-Claudian date for it. Most of the smaller pieces can be paralleled from excavated finds, but to see them all together offers a context for them, always assuming the item is genuine. Where it came from is unknown as is its ultimate destination. Needless to



say, no specialist appears to have been afforded the opportunity to examine it and no publication has been forthcoming.

So much for the known knowns and the known unknowns. What about the things we don't know we don't know, the Rumsfeldian unknown unknowns? We can only guess at what we never get to see, but it would not be too wild a guess to assume that a lot of poorly preserved ironwork gets discarded in all of the processes that constitute the non-archaeological acquisition of artefacts. It stands to reason.

CATEGORISATION

The revival of the *Arma Bibliography* (and preparations for the restoration of *Armamentarium*) make it desirable that a series of categories be introduced with which *Arma Bibliography* entries can be tagged. This will then in turn allow the *Armamentarium* bibliography to incorporate a series of subject bibliographies. When submitting entries for inclusion in the *Arma Bibliography*, please give thought to such categories.

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