



ARCHAEOLOGICAL LEATHER GROUP NEWSLETTER

62 September 2025

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Editor's note

Hello everyone, and welcome to our latest Newsletter.

In April this year we learnt of the sad and unexpected death of Pieta Greaves, a former ALG committee member and a senior conservator, known for her work on the Staffordshire Hoard. Angela Middleton has written a personal tribute which you will find on page 12. The committee would like to dedicate this issue of the newsletter to her memory.

Embroidered leather will be the subject of a presentation to ALG in December by north American member, Ken Stuart. By chance this issue of the newsletter also contains an article by Franklin Pereira on the same subject. Thom de Gooijer has been developing a standardized system for recording Roman footwear assemblages from different sites, with a view to comparing their population structure (pages 9-12).

Those who attended the 2-day 'Jersey Purse' workshop in Exeter this year reported that it was a great success and very enjoyable. In her account, as one of those attending, Diana Friendship-Taylor notes how small the purse was but how its complex construction suggests a fairly long evolution which, so far, we are unable to trace.

In October we have a meeting at Southend which you can attend either in person or remotely. There is still time to register for this event (see page 6) which has already attracted considerable interest. There is also the Spring Meeting in Prague to look forward to in 2026.

Please send all contributions to next year's March newsletter to me at the email address on the last page. The deadline for contributions will be Monday 2nd March, 2026.

Thank you!

Sue Winterbottom

Two-day workshop on the Iron Age Jersey Purse Exeter University, 10-11 April 2025

The workshop, in the University's Archaeology Department, focussed on the 'Jersey Purse', an extraordinary survival of a late Iron Age draw-string purse. It was found at the bottom of the Le Câillon II Hoard, an enormous cache of around 70,000 silver/copper staters, dating to the mid 1st century BC. The purse, containing a few of the coins, had been largely preserved by the anti microbial effects of copper oxides leaching from the coins above.

After being lifted in a block, the hoard was meticulously excavated, cleaned, conserved and 3D recorded at Jersey Heritage by its conservator, Neil Mahrer and Philip de Jersey, archaeologist and numismatist (see note at the end).

We were able to pore over the purse before the workshop began; some of us were surprised at how small it appeared! It measured approximately 70mm top to bottom and side to side, excluding metal fittings.

Following a welcome by Angela Middleton, day 1 began with a talk, by Neil Mahrer, on the discovery, recovery and conservation of the Jersey hoard and purse. The method of 3D recording enabled the excavators to establish that the cache actually consisted of two hoards, deposited on the same day, the second hoard consisting of later, poorer quality coins.

Esther Cameron followed with a detailed account of the research and analysis undertaken by Quita Mould and herself, incorporating the results of various scientific examinations into their observations on the purse's elements and construction.

Theresa Emmerich Kamper gave us the benefit of her expertise in skin preparation. Iron Age 'leather' would be expected to be made by one of three methods: rawhide, fat tan or vegetable tanned, with the grain layer removed to facilitate absorption of fats. Unexpectedly the Jersey

Cover photo: Attendees at the Jersey Purse workshop in Exeter this year.
Pieta Greaves is in the centre, with her hand resting on the bannister rail.

purse was found to be grain-on sheepskin, treated with a bark rub. The Exeter Department's high-resolution imaging confirmed the presence of the grain layer.

The purse was constructed from a circle of leather, with radiating lines at regular intervals. Slits had been cut between the lines around the circumference, threaded with two drawstrings ending in two smaller rings, used to close the purse. Two large copper alloy rings, to open the purse, were attached using the drawstring holes. Leather tabs were secured each side, probably by five rivets and whip stitched as a decorative feature. X-rays showed the remnants of three lines of beads, of rolled copper alloy sheet, double-threaded, passing beneath the purse in an arc between the bottom of the tabs. The tabs would have kept the purse upright when open and the rows of beads would have given it a rigid base, besides making a statement when suspended from a belt!

Equipped with a comprehensive insight into the context and construction of the Jersey purse, we started to make our own replicas on day 1, all materials and tools being provided. We made the laces for the drawstrings, and for attaching the various elements, by cutting thin strips of leather, wetting them and winding them tightly round a chair overnight.

On day 2, we continued to make our purses, with support from Theresa, while Louise Mumford demonstrated 2-strand slit-braiding, of which the drawstrings were made (already known to be in use in the Iron Age) and 4-strand braiding, around a core of sheep or goat skin, which may have served to suspend the purse, or to tie the two large rings together.

Through making our own versions of the Jersey purse, we came to appreciate the complexity of its concept and construction. Drawstring purses have been used through the centuries, from Roman to modern times, but the Jersey example is the first to have been found in a pre-Roman context in NW Europe. The closest examples are 2



The purse components



The original purse from Jersey



The inside of the purse, with plaited loose ends

from Roman Britain, both of vegetable tanned leather. The sophistication of the Jersey purse is the product of a long evolution of drawstring purses, for which we have no earlier examples.

The survival of its organic elements together with the metal components will open the door to reassessment of similar assemblages of metal parts, such as closely spaced rings, where no organic material has survived and aid interpretation of future finds.

Heartfelt thanks go to all the tutors and organisers, and to Exeter University's Archaeology Department and staff, for a thoroughly enjoyable and inspirational 2 days. It was also a wonderful opportunity to catch up with 'leather' friends and to make new contacts.

On a personal note, as a graduate of Exeter in History & Archaeology I would never have imagined being 'taught' back in the department 55 (!) years on - albeit in a different building and with different staff. It brought back very happy memories and I enjoyed making new ones.

Diana Friendship-Taylor

Note: An excellent discussion of the research carried out by Esther Cameron and Quita Mould



Outside: completed apart from the beads



The completed purse replica

on the purse, the analytical techniques used and the contribution of other specialists, together with references, appeared in **ALG Newsletter 60**, for September 2024.

For an article describing the finding and recovery of the Câtillon II hoard, see: <http://bit.ly/46ekc9j>

The 2025 Annual General Meeting

At this year's AGM, held on 9 May, Rosie Bolton and Jana Obročníková stood down from the committee after each completing two 2-year terms. Dominique Mathieu and Graham Lampard were elected to replace them as Ordinary Members. Jana has been co-opted back onto the committee for one year as main organiser of the Prague visit, to take place in March 2026. 20 members attended the online meeting and full minutes are in the Members' section of the ALG website.

Presentation by Lucy Skinner

Following the meeting, Lucy treated members to a talk with the title:

Fashioning Sudan: The Nubian's New Clothes!

'Fashioning Sudan' is a Copenhagen-based project studying clothing from ancient Nubia, which lay to the south of Egypt. The core of the project is research on textiles but Lucy has been looking at the leather and fur material, which ranges in date from the prehistoric to medieval periods. It is a broad, socio-economic and cultural study and evidence comes from contemporary paintings from tombs as well as from excavated material in Scandinavian museums. The leather is often fragmentary and was often not identified as clothing at its original acquisition. It appears that fur was more commonly used in Nubian society than in contemporary Egypt. Through microscopic examination, Lucy is developing new techniques of species identification for both leather and fur. Experimental work is helping to identify and replicate the tanning and colouring methods used.

We were shown images of some finds from a prehistoric people known as the A-Group, who occupied a geographical position on the River Nile between Egypt and Sudan. Their society flourished from 3500-3000BC and at that time cattle, sheep and goats had been domesticated but there were still wild animals such as the gazelle in the Nile region which could be utilised for their skins. In the 1960s, rescue excavations took place in the area by the **Scandinavian**

Joint Expedition to Sudanese Nubia in advance of the construction of the Aswan Dam. One grave at a site called Halfa Degheim contained a large amount of fur and leather—with layers of different coloured materials attached to each other. These appear to belong to a number of garments. Two people were buried here and the grave also contained a ostrich feather fan, an ivory bracelet and some kind of leather net with a handle. Detailed inspection of the garments has revealed red, brown and yellow colouring, straight seams with decorative sinew stitching and in one place a mosaic of small squares of different coloured fur. It is thought the finds may represent a type of hooded cape.

After the presentation there was, as usual, a lively and thoughtful discussion. This covered topics such as the suitability of leather and fur clothing for the local climate and a pastoral society. There were also questions about the degree to which excavated material from Nubia mirrors what is shown in pictorial representations—for example in the case of the skirts worn by Nubian women. If you missed it, Lucy's talk is available to watch in full in the Members' section of the ALG website:

<https://archleathgrp.org.uk/members-2/videos/>

Committee Business - volunteer wanted!

At next year's AGM, **Angela Middleton** will be retiring as the ALG's Meetings Coordinator after two years and the search is on to find someone to replace her. The Meetings Coordinator is a member of the group's committee and while it is the job of the whole committee to come up with topics and locations for meetings, the Coordinator's role is to handle the communications to make sure an event takes place as planned.

A description of the Meeting Coordinator's role is on the ALG website here:

<https://bit.ly/3UZs5tj>

If you would enjoy taking on this role and becoming more involved in the group's activities, please get in touch with Angela who will be happy to tell you more. Her email address is on the final page.

Forthcoming events:

Meeting at Southend-on-Sea

24th October, 2025

On Friday, 24th October the ALG is holding a one-day meeting at **Southend-on-Sea**, which is 40 miles from central London on the north side of the Thames Estuary. The focus of the meeting will be the leather finds from a wrecked warship, the **London** which sank in the Thames in 1665 following an explosion on board. We will be visiting two locations: the Beecroft Art Gallery, where collections are stored and Southend Central Museum which is currently running an exhibition on the wreck.

At the Beecroft Gallery there will be a presentation on the leather artefacts from the wreck by Quita Mould and Angela Middleton, who have both worked on them. The presentation will be transmitted via Zoom to those unable to attend in person. For those who can attend there will be the option of spending time together at a dinner in Southend after the meeting. There is a small cost of £10 per person which includes tea and coffee at the Beecroft Gallery and entrance to the exhibition; remote attendance at the presentation is free. More details and a full programme of the day's visit can be found on the ALG website:

<http://bit.ly/3UzQQMB>

If you want to register to attend either in person or remotely you can do so here:

<http://bit.ly/4moEHVv>

Please note: when you register, both options are free. The £10 charge will be collected on the day if you attend in person.



17th century shoe from the '**London**' wreck

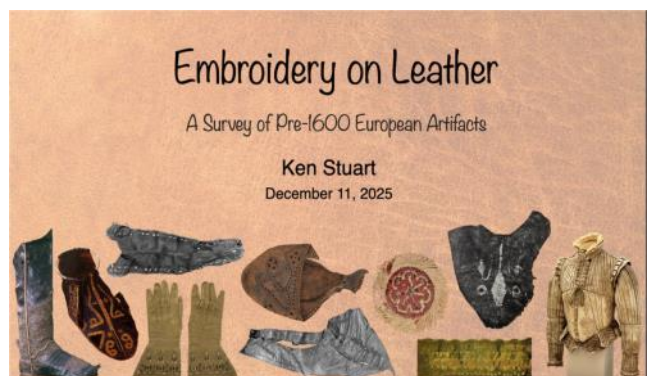
Embroidery on Leather: a Survey of Pre-1600 European Artifacts

11th December, 2025 at 6pm UK time

ALG member Ken Stuart will be presenting this webinar on his research into medieval embroidered leather. He will compare and contrast the two types of shoe embroidery found in Scandinavia and Poland from the 11th-12th centuries. Further, a review of a number of other kinds of items such as knife sheaths, gloves, belts, doublets, purses, and shields will be presented.

Numerous embroidered leather artifacts survive from the Middle Ages. Of these, the vast majority are shoes, which fall into two stylistic groups: Western and Eastern European. The former consists of finds mostly from Scandinavia and England while the latter consists of those surviving from Poland and adjacent areas. The application of embroidery for each group differs fundamentally and considerably. These will be compared and contrasted to each other and to embroidery on cloth. Aside from the shoes, embroidery also appears occasionally on knife sheaths, gloves, belts, doublets, purses, shields, and other types of items during this long time period. All of these discovered to-date have been catalogued into an online database with details drawn from a wide range of publications and online museum catalogues.

Attendance by ALG members is free and you will be contacted nearer the time so that we can assess how many will be attending. If you are attending you will be sent a Zoom link prior to the meeting.



2026 Spring Meeting: Prague, Thursday 19th to Friday 20th March

Next year we have the opportunity to visit two collections of high medieval archaeological leather from Prague. Local archaeological sites in Prague city centre have been producing leather finds since the 1960s. Some locations near the Vltava river have good preservation conditions for organic materials and large construction projects in the last 20 years have unearthed two extensive collections from 14th-15th century sites. One is from Wenceslas Square and one from site 'Jáma' (meaning a pit) near the medieval city wall. The two collections are curated by different institutions and both have offered us a short tour to see the better pieces. The visits will be complemented by a day of talks in the library of the Archaeological Department of the Czech Academy of Science. The talks are organised in collaboration with this institution.

The talks will include an introduction into research on the sites and collections we have visited by Jindřich Figura, who works on the Jáma site for the Czech National Heritage Institute. Jana Obročníková will present the excavations from Wenceslas square and Aleš Hoch will talk about Czech archaeological leather in general, as he has focused on this topic in his previous work. We would like the rest of the day of talks to focus on leather accessories of all types, in the form of 5-20 minute contributions, with the possibility of publishing the proceedings of the meeting on the ALG website. We would also welcome contributions on archaeological leather conservation.

Members will be making their own arrangements for travel to Prague and accommodation there. Visits to the two collections are free but a charge will be made when you register to cover all expenses of hosting the meeting, including a lunch on Friday and other refreshments. This will be detailed in the arrangements for booking, which will be emailed to members.

The booking deadline for the event is 3 January, 2026 and for offers of talks/contributions the deadline is 14 February, 2026. A style guide for speakers will be provided with the booking details.

A detailed programme of the meeting, together with a guide to accommodation and travel around Prague, can be found here:

<http://bit.ly/4nsISAi>

Call for Papers

As mentioned above, part of the second day of the meeting is set aside for contributions by attendees on the subject of medieval leather dress and other accessories. We also invite talks on the subject of leather conservation. If you have a short paper of up to 20 minutes in mind, do not hesitate to contact Jana at

obrocnikova@gmail.com

with your suggestion and a short summary. We should then like to have the full text of your talk before the meeting, to facilitate the production of a PDF with the proceedings. Thanks!

Jana Obročníková and Angela Middleton

Getting to know you...

Graham Lampard
ALG Committee Member



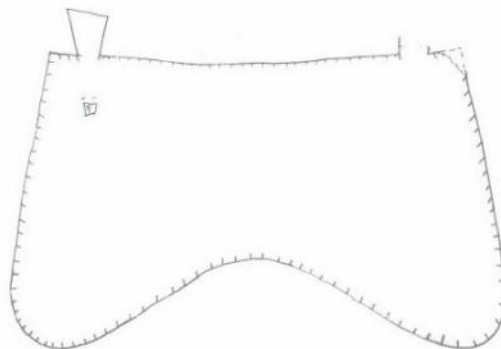
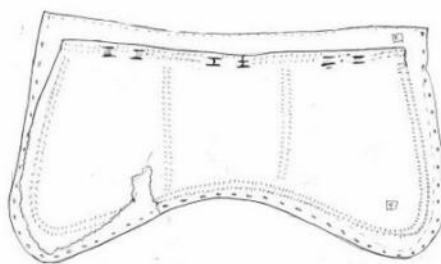
Graham Lampard has wandered idiosyncratically through the leather industry for the past 40 years. He's worked, briefly, in a tannery, and for longer periods with the BLC Leather Technology Centre (Northampton) and with Leather International magazine. He has also got a

PhD in Leather Science. Because he bought a bookbinding business (knowing nothing about bookbinding!), he serendipitously stumbled upon the Museum of Leathercraft, an indescribably wonderful collection of artefacts relating to the leather and leather industry, founded in 1946 by John Waterer and Claude Spiers. Ending up as its curator until the Trustees decided the collection would be better off with Northampton Museum & Art Gallery, he is now a Trustee of the Leathercraft Trust, which is the successor to the Museum of Leathercraft Trust Board. Having known Roy Thomson for around 20 years, Graham joined the ALG at Roy's suggestion when both Roy and Pat were volunteers at the Museum.

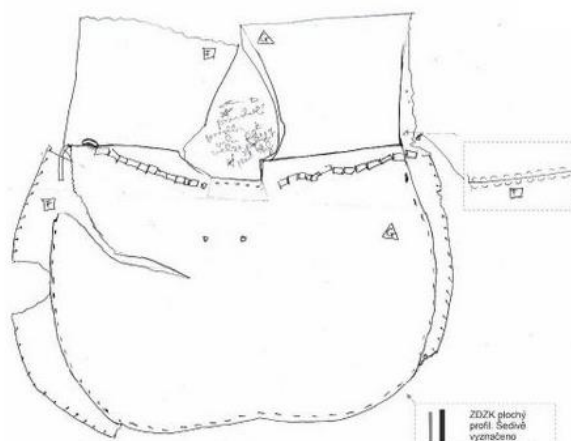
The Dordrecht Museum medieval girdle purses - a catalogue and drawings

Readers may remember an article by Jana Obrocníková in **Newsletter 58** describing a medieval framed purse from Dordrecht Museum of which she had made a beautiful replica. Over the last few years Jana has been studying the collection of purses there for her Master's thesis at the Czech University of Hradec Králové. She has now uploaded her thesis text and a catalogue with 78 pages of detailed drawings of purse components to her Academia profile. The work builds on the study by Olaf Goubitz, *Purses in Pieces* (2017), although the majority of items which Jana illustrates have not previously been published. The PDF files can be viewed or downloaded at:

<http://bit.ly/42bjUy9>



Screenshots from Jana's catalogue,
representing 4 different purses.



Footwear on the Frontier: a comparative study of three Roman sites in the Netherlands

by Thom de Gooijer

email: Thomdegooijer@gmail.com

In my recently completed MA thesis at Leiden University, I investigated whether the analysis of late 2nd- to early 3rd-century footwear assemblages from three Roman frontier sites along the Dutch part of the Lower Germanic *Limes* (Vechten, Valkenburg, and Voorburg) could provide insights into the nature of these settlements and the character of their populations. This was achieved through the application of a comparative and standardized analytical approach.

Comparing Roman footwear assemblages has long been challenging, primarily due to a lack of accurate, uniform and standardized quantification and documentation methods across different studies. To address these issues, I developed a custom relational database that enabled the uniform and standardized recording of the various features of Roman footwear. This database was inspired by the database used at Vindolanda, which was generously shared by Dr. Elizabeth Greene.

The database is structured around technological categories, based on the construction method of the sole (e.g. nailed soles, sewn soles, sandal

soles, and *carbatinae*). The database includes a wide range of fields to record all relevant features of the Roman footwear. This approach enabled a successful comparative analysis of the footwear assemblages from the three sites, employing a variety of analytical methods. In total 465 soles have been examined across the three sites. 125 soles from Vechten, 126 soles from Voorburg, and 214 from Valkenburg.

One of the more promising methods applied in this study was the analysis of peripheral nailing patterns on the nailed soles within the assemblages. This method was originally developed by Jacqueline Hoevenberg in her 1993 study of the leather assemblage from Valkenburg (Hoevenberg, 1993). The results of Hoevenberg's research suggest that pattern 1 is primarily found on footwear corresponding to women's and children's sizes, while patterns 2 and 3 are almost exclusively associated with shoes of male sizes (Hoevenberg, 1993, p. 253).

Through the standardized and comparative framework of this study it has been possible to test the reliability and comparative potential of this method and the results have been very promising. Through the analysis of the peripheral nailing patterns in combination with their complete or estimated complete insole size it has been possible to determine a pattern that seems to be consistent across all three sites. Pattern 1 seems to be mainly, but not exclusively, used for female, adolescent and children's footwear, while

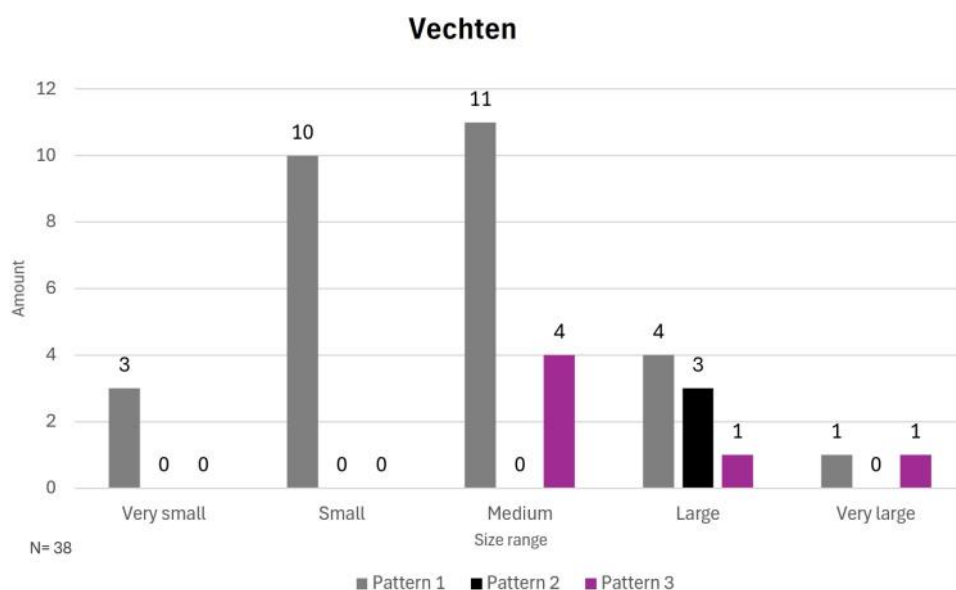


Figure 1: Frequency of peripheral nailing pattern per size range at Vechten. Very small: <28; Small: 28-33; Medium: 34-37; Large: 38-40; Very large: >40*.

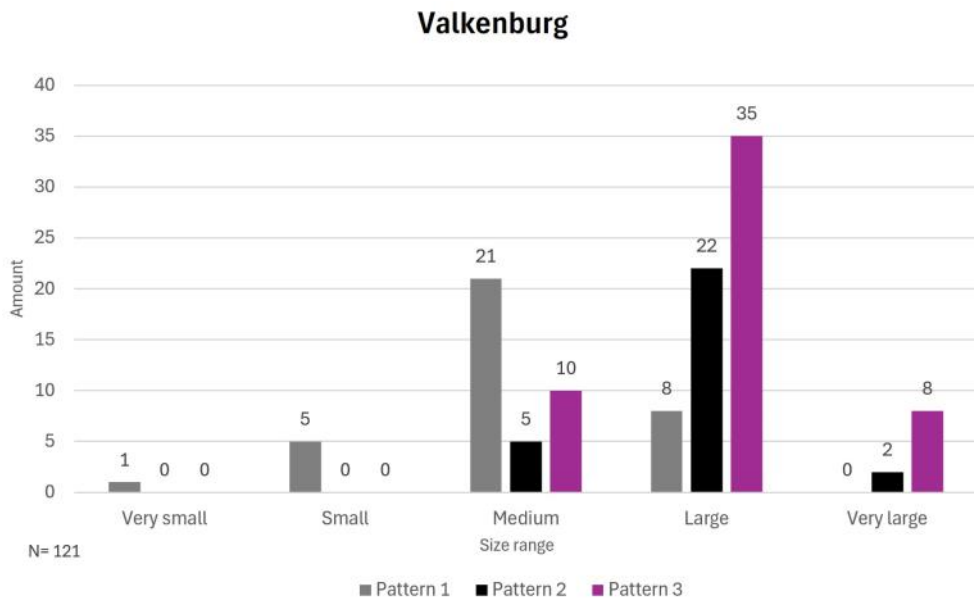


Figure 2: Frequency of peripheral nailing pattern per size range at Valkenburg. Very small: <29; Small: 29-34; Medium: 35-38; Large: 39-42; Very large: >42*.

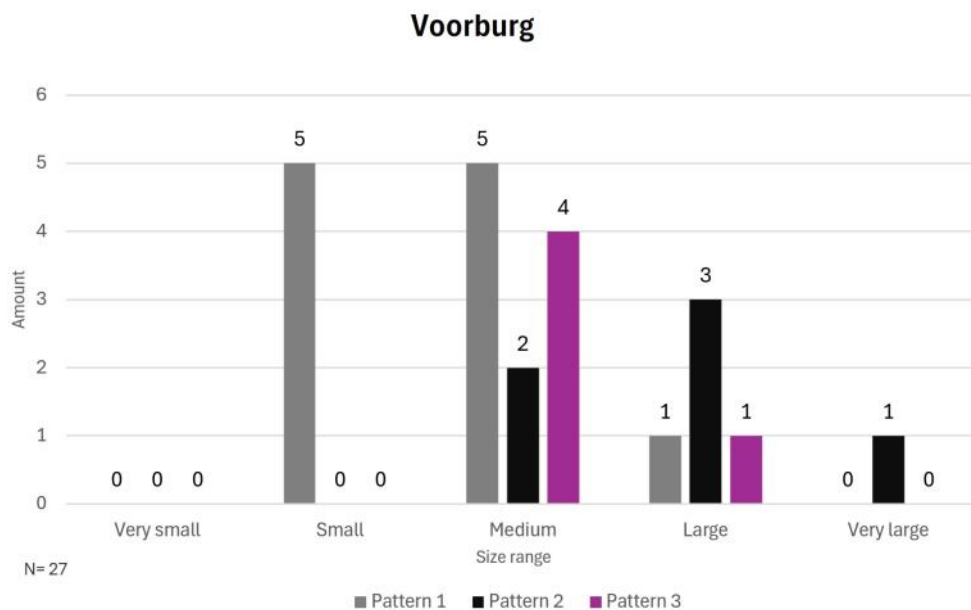


Figure 3: Frequency of peripheral nailing pattern per size range at Voorburg. Very small: <30; Small: 30-34; Medium: 35-37; Large: 38-40; Very large: >40*.

patterns 2 and 3 seem to be almost exclusively used for the larger male footwear (see Figures 1, 2 & 3), thus confirming Hoevenberg's interpretation. This method may therefore prove to be a valuable addition to the toolkit for conducting social analysis in Roman footwear studies.

Interpretation of the results

When comparing the footwear assemblages from *Fectio* (Vechten), *Praetorium Agrippinae*

(Valkenburg), and *Forum Hadriani* (Voorburg), clear and consistent differences emerged across construction types, demographic indicators, and functional characteristics. These variations reflect the distinct roles these settlements played within the broader context of the Lower Germanic *Limes* during the late 2nd to early 3rd century AD.

The assemblage from Vechten stands out because it shows a very diverse distribution of

footwear that is much more akin to civilian settlements than military ones (see Figure 4). the notable presence of sewn soles is unusual, particularly for a frontier fortress site. With substantial proportions of sewn soles (20%) and sandals (30%), the site aligns more closely with urban civilian assemblages. This is further supported by the distribution of shoe sizes, which points to a balanced population of men, women, and children. Furthermore we see a dominance of peripheral nailing pattern I, which can be linked to female and juvenile footwear. Additionally, decorative nailing patterns in the centre of the soles are far more common at Vechten than at the other two sites, which seem to mainly show simple utilitarian patterns. All of this points towards a population that is more civilian in nature, one that included not only working class people but possibly also civilians of higher status, such as administrative personnel and officers.

Valkenburg, by contrast, presents the most utilitarian profile out of the three assemblages. It is dominated by nailed soles (over 75%), with a relative scarcity of other types of footwear (see Figure 5). The distribution of foot sizes shows a strong bias towards adult male sizes, a trend further supported by the analysis of peripheral nailing patterns which are dominated by patterns 2 and 3 which almost exclusively appear in the larger male sizes. The inner nailing patterns on the soles also seem to be mainly nailed in simple utilitarian linear patterns, with only a few soles displaying decorative patterns. All of this seems to strongly suggest a working, male-dominated population, possibly reflecting a continued military or labour-focussed function.

The assemblage from Voorburg kind of occupies a middle ground, combining features of both civilian and labour contexts. Like the assemblage from Valkenburg it is dominated by nailed soles, with only a small percentage of the other three categories (see Figure 6). This rather unbalanced distribution is interesting, as a slightly more even distribution would be expected for a civilian site and urban centre such as *Forum Hadriani*. In contrast to Valkenburg however, it displays slightly more diversity and a more balanced population based on the foot sizes and a fairly balanced distribution of peripheral nailing patterns 1, 2 and 3. These demographic indicators suggest a mixed-gender adult population, but with a noticeable absence of children's footwear. Furthermore most soles seem to be nailed with simple utilitar-

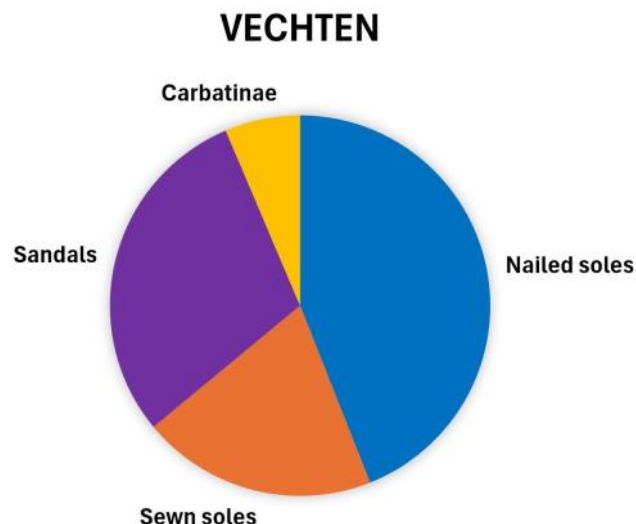


Figure 4: Categorical distribution of the 125 soles from Vechten.

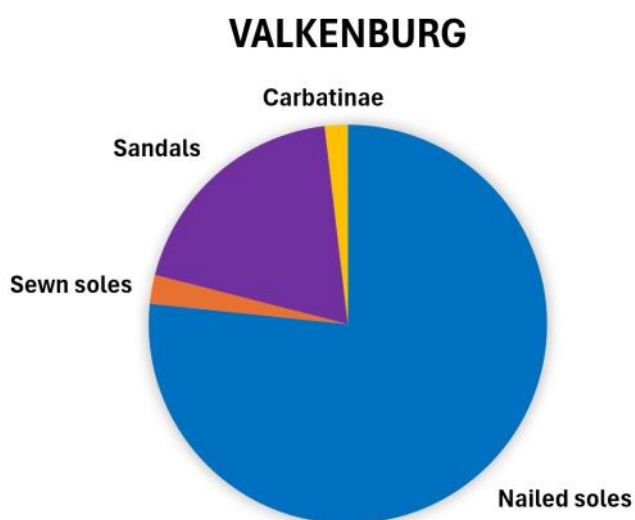


Figure 5: Categorical distribution of the 214 soles from Valkenburg.

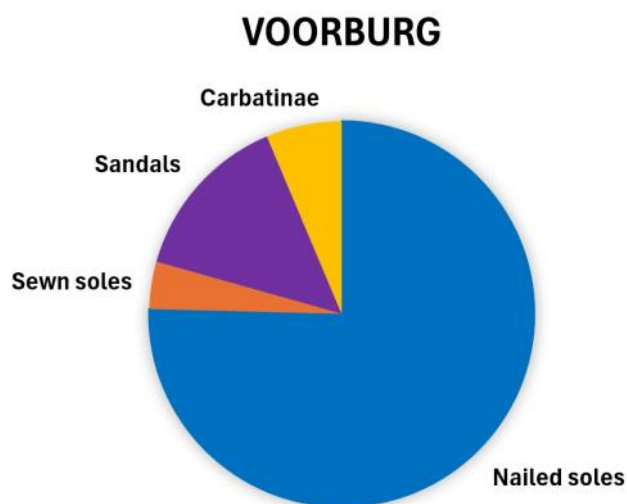


Figure 6: Categorical distribution of the 125 soles from Voorburg.

ian inner nailing patterns. All these signs likely reflect a labour-intensive environment and point towards the presence of a working class population being active in and around the harbour area where these soles were found.

Taken together, the footwear assemblages reflect three distinct site profiles. While certain limitations remain, particularly regarding the condition of the footwear and the availability of contextual information, the comparative analysis employed in this study has demonstrated that Roman footwear, when systematically recorded and analysed using a uniform standardized approach, can serve as a valuable proxy for interpreting site function, demographic composition, and the social character of frontier settlements.

The full study can be found on the thesis repository of Leiden University for which a link is provided below.

Student thesis repository Leiden University:

<https://bit.ly/4oQ2BMK>

Sources:

Hoevenberg, J. (1993). Leather Artifacts. In R.M. van Dierendonck & D.P. Hallewas, K.E. Waugh (Eds.), *The Valkenburg excavations 1985-1988: Introduction and detail studies* (pp. 217–338). Nederlandse Oudheden 15. Rijksdienst voor het Oudheidkundig Bodemonderzoek.

Obituary: Pieta Greaves (1979-2025)

I first met Pieta at the “Digging for Britain” film studios in London. Pieta was there with a sword, and I now want to scour the Digging for Britain online archive to find that episode again. This chance encounter led to a friendship that was characterised by meeting up at various conservation events and conferences, calling each other for advice or just a chat, and always going out for a meal if we could find the time.

Pieta was extremely generous with her knowledge and advice and you always knew that you would get an honest, down-to-earth, very pragmatic answer. Pieta did not mince her words and whilst some people may have found



Pieta at a mount-making course
(source Wikimedia Commons).

her frankness abrasive, I wholeheartedly embraced it: there was no fluffiness, there was no pretentiousness, there was only advice! She was great at keeping the end goal in mind and everything she did was aimed at achieving a great but pragmatic conservation outcome.

Pieta was fiercely independent. She was not afraid of engaging in complex tasks or projects by herself. She knew the heritage sector extremely well and was well known and respected for her “can-do” attitude. She actively sought engagement with fringe groups, to open dialogues and break down barriers, such as with metal detectorists. I still remember how she approached the topic of repatriation: “*It is not difficult! You just have to invite first nations to be part of the conversation.*”

Over the years Pieta has served on many committees, including the Archaeological Leather Group, where she served from 2021 to 2023 as Meetings Coordinator. Her sound knowledge of the sector and its membership always provided solid and down-to-earth advice of what would and wouldn’t work or how to price up an event.

Pieta did not enjoy academic writing, but she still got the word out there. Countless TV, newspa-

per and magazine appearances featured her and her work, and she did a brilliant job at communicating conservation work and bringing it to a greater audience. For someone who was not camera shy, she did not like having a photo taken. She liked to vet them and on one occasion sternly told me: “Delete that!” Which, being equally stubborn, I of course didn’t do. And the few photos I have of her, are very dear to me now!

Angela Middleton

Golden wire embroidery on leather: artefacts from the Islamic Kingdom of Granada

by Franklin Pereira

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I first saw most of these pieces in the magnificent exhibition **Al-Andalus: Islamic Arts in Spain**, held at Granada’s Alhambra palace in 1992. At that time I had travelled to Córdoba for another series of gilt leather/*guadameci* classes with Carmen Bernier (b. December 6, 1924 d. January 30, 2017). The artefacts are described in the voluminous catalogue of that exhibition but - as is always my wish – I wanted to have them in my hands, to examine the type of leather and discuss the technique and aesthetics. And so it happened, a few years later on a planned trip to the *Real Armeria*/Royal Armory in Madrid.

These pieces, dating from the 15th century, share the same ornamental technique: silver thread embroidery creating *Andalusí* florals, the “Hand of Fatima” and the motto of the Nasrid dynasty (the last Muslim sultanate of the Iberian Peninsula): “Only God is Victorious” or “Victory belongs to God”. Hence, we have utilitarian pieces imbued with a link to state power, indicating the status and high hierarchical position of their owners.

The shoulder bag (Figs. 1, 1a, 1b) - missing the strap that would secure it to the shoulder - has the dynastic motto inside a braided frame on its



Fig. 1 Shoulder bag. Photo by the author

flap. The flap has an interesting lobed design, ending in an upside down counter-curved arch. Above and below the motto are arabesques which are other floral derivatives of the period. In addition to the missing shoulder strap, the bag also lacks a button (leather or textile) to close the flap. It appears there was a metal ring fixed to each side of the bag where the shoulder strap would have been attached.

On the back, in an embroidered rectangular frame, is the “Hand of Fatima” (Fig. 1b), or invocation of the five pillars of Islam (faith, fasting, charity, pilgrimage and prayer). The exhibition catalogue states that this bag “possibly held a Quran”. The bag was not shown in the exhibition, nor in any other book, as far as I have researched.

Belts were also decorated with this type of embroidery and under Christian rule were known as ‘Moorish belts’. One such belt, with a small rectangular bag or purse attached, is illustrated in a longer version of this article in the online magazine *Al-Madan* (see note below).

Also in the Alhambra exhibition was a sword attributed to Boabdil (the last Nasrid sultan) which had a leather sheath with two straps and



Fig. 1a Detail of the calligraphic embroidery and the *Andalusí* arabesques. Photo by the author.

embroidery in gilded silver thread. The sheath of a “gineta” style sword was another example with metallic thread embroidery - this time the embroidery featured inscriptions (not described in the catalogue) and lacework. This sword and scabbard date from the 15th century and belong to the *Bibliothèque Nationale* in Paris.

In Spain those who produced embroidery using metallic thread were called “correeros de hilo de oro” (*correero* meaning someone who works with leather, or sells leather products). Similarly, in Portugal, most leather craftsmen belonged to the guild of “correeiros” – from those who made articles for daily use to those producing carved upholstery or leather shields/*adargas* (such as the one in my earlier **Newsletter 61** article). Saddles were exclusive to the saddlers, shoes to the shoemakers, wine skins to the wineskin makers, *guadamecis* (gilt leather items) were the work of the *guadamecileiros* and so forth.

On the 26th of August 1539, the Portuguese king João III had the guild ordinances reviewed, and we find “os que Laurão fio” (the ones who work with gold thread) belong to the “correeiros” guild. A document from 1486, refers to two brothers “correeros” of golden thread working in Córdoba. Another, from Seville in 1485, makes clear that “the majority of



Fig. 1b Back of the bag, with the “Hand of Fatima”. Photo by the author.

those who work with gold and silver thread are of the art of *correería*”. In Seville the earliest ordinances of the “correeros” date to 1485, while in Granada such ordinances date to 1515. Compendiums of these ordinances, with later additions, were printed at different dates but contain the earlier material.

Bibliography

Dodds, J. D. (ed. 1992) *Al Andalus: Las Artes Islámicas en España*, Madrid, Ediciones El Viso.

ORDENANÇAS de Sevilla: *Recopilación de las ordenanças de la muy noble y muy leal cibdad de Sevilla*, (1527), no publisher.

ORDENANZAS que los muy ilustres, y muy magnificos señores Granada mandaron gvardar, para la buena gouernacion de su Republica, impressas año de 1552, Granada, Imprenta Real de Francisco de Ochoa, año de 1672.

Note: The full article, with more photos and drawings, can be read in the free online magazine **Al-Madan**, published by the Archaeology Centre of Almada, Portugal (Issue No.28 for July 2025, pages 153-162):

<https://doi.org/10.5281/zenodo.16423276>

Obituary: Willy Groenman-van Waateringe (1933-2025)

One of the pioneers of archaeological shoe and leather studies, Willy Groenman-van Waateringe, passed away last February, shortly after her 92nd birthday. At the University of Amsterdam she laid the foundations for the systematic registration methods and standardized definitions of leather artefacts and footwear that we still employ today.

Though trained as a biologist and palynologist, she became intrigued by the neglected leather finds from the Roman site of Valkenburg, defending her thesis 'Romeins lederwerk uit Valkenburg Z.H' in 1967. She was the first to recognize the logic of Roman seam and hem construction, enabling her to re-fit sheet leather to form workable reconstructions of tents, shields and saddles. Though later expanded and refined by new discoveries, her analysis still stands as an essential reference work, not only for the interpretation of other archaeological assemblages, but also a rich source for the reconstructions of leather equipment so proudly exhibited by serious reenactment groups like the Ermine Street Guard. This in turn has led to a flourishing branch of experimental archaeology.

Later, Willy turned her attention to medieval assemblages that consisted mainly of footwear. These very large, urban assemblages – Amsterdam, Lübeck, Haithabu, Schleswig – required a different approach to be manageable. Here again her scientific background comes to the fore in her definition of shoe types based on technologi-

cal features, and the concise, quantative presentation of results. Numerous students were involved in these large, long-term projects, and, with characteristic generosity, Willy always insisted that they published under their own name. She researched the clothing of the ice man, Ötzi (though her correct reconstruction of his shoes took a while to be accepted), and used pollen analysis to investigate his environment and the methods used for leather processing. Already in the 1980s she had used pollen analysis to date the prehistoric shoes from bogs in the Netherlands, later including 14C dating as these methods improved, giving a firm framework for the long-term development of footwear technology and demonstrating the dating potential of footwear. At the same time, Willy was also investigating the use of footwear for demographic purposes, drawing attention to child labour in the salt mines of Durrenberg, and the skewed population present on early medieval trading posts. Today, much of this is well-known, but in the 70s and 80s it was revolutionary.

She was always open to new ideas, and taught her students to accept change: in archaeology a single new find can turn everything upside down. I was quite worried when I showed her the top of a tent door from Vindolanda: she had classed a similar panel from Valkenburg as a possible horse pectoral. After all, she was my supervisor, and I a mere beginner. Without hesitating she threw her old interpretation overboard and joyfully greeted the find as the solution to her original doubts about the tent doorway. And she of-



ten complained that overviews of leather and footwear not only fail to take account of later corrections but also assume that the original author remains stuck in the outdated interpretation. She believed in co-operation and was always ready to discuss new finds or problems of interpretation, remaining curious and well-informed till the end. Whenever I reached an impasse in my own work, I knew I could turn to her for advice. As one of the few female professors at that time, she was also a role model for a whole generation of students and she actively encouraged the pursuit of academic careers. As a PhD supervisor she was demanding, stimulating but also very supportive.

Willy published widely on leather technology, footwear and ecological topics. Long after her retirement she continued to work on footwear assemblages, but also returned to her roots in palynology with new, co-operative projects. She was dean of the faculty at various times between 1972 and 1989, and full professor of Ecological Archaeology at Amsterdam University from 1980 till her retirement in 1998. Following the death of professor W. Glasbergen, Willy pretty well ran the Institute of Pre- and Protohistory, inviting international guest-professors and outside lecturers to familiarise all the members of the department with a wide range of new developments in archaeological thought and practice. She strongly encouraged cooperative projects and was quick to recognize the value of new scientific methods for archaeological purposes (zooarchaeology, wood/charcoal analysis, dendrochronology, textiles, coprolites, parasites, diatoms). Unfortunately, university cut backs hampered many of these developments, and to her sorrow, much of this expertise has been lost.

Through the Valkenburg excavations, she was drawn into the wider field of Roman frontier archaeology, presenting a series of characteristically short, to the point studies on the ecological impact of the Roman empire. For many years she was closely associated with the organization of the tri-annual **International Congress of Roman Frontier Studies** (the Limes Congress) which was held in the Netherlands in 1995 and again in 2022. The proceedings of this last meeting were dedicated to her achievements, and we were fortunately able to present the four volumes to her in December 2024. A few weeks before her death she took me to task on several

issues raised by these contributions on which she still held strong views and which she wanted aired at a meeting of Dutch archaeologist a few weeks later. And discuss them we did.

Carol van Driel-Murray



We haven't received many enquiries so far this year but in March, too late for the spring Newsletter, **Lena Strid** got in touch. She wrote:

Dear ALG,

Long time member here, and at the end stage of the PhD. I'm trying to find good close-up images of hair follicles on calf, sheep and goat leather, similar to those seen in this website:

<http://bit.ly/3GQBj7J>

I've contacted the British Library, and high-resolution versions of those images were lost in the cyberattack in 2023.

Do any of my fellow members, or does the group itself, have high-resolution images (300dpi) that I can use for my thesis? Perhaps you know someone outside the group that I can ask? Obviously I will credit the photographer, and if necessary, there is a small imaging rights budget.

Best wishes,
Lena

Arianne Panton sent Lena a link to the Betty Haines archive of skin and leather slides:

<https://bettyhainesarchive.co.uk/>

In the meantime, though, **John Nicholl** replied with some images of his own and this message:

Hi Lena,

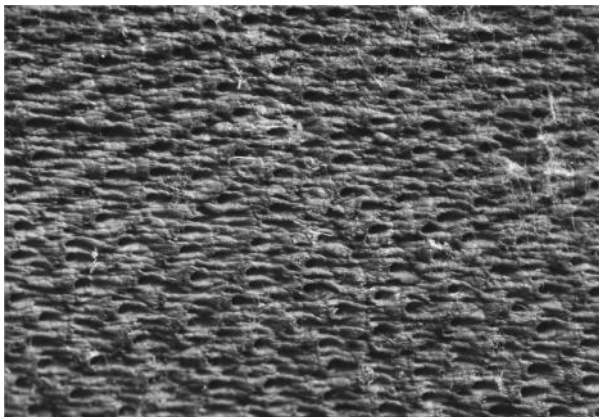
I have attached some images [below] of follicle close-ups, which you are welcome to use if they are suitable for your purposes. They are my own images from leather samples I use, so there are no copyright issues.

Best wishes,
John

'Your Questions to ALG'
continues on page 18



1. Bovine



2. Red deer



3. Sheep



4. Goat.

Magnissima!



Photo: The Vindolanda Trust

The Roman shoe sole pictured above measures 12.6 inches (32cm) in length and is thought to be the biggest ever found. It turned up this summer in excavations by the Vindolanda Trust at the fort of Magna (modern Carvoran) on Hadrian's wall. Its size corresponds approximately to UK size 13, continental size 47-48.

But it is not alone. Altogether a group of 8 extra-large shoes, all measuring more than 30cm, has been found. By contrast, the average shoe size at Vindolanda (after conservation) is between UK shoe size 7 and 8, so there is much interest in what this concentration of larger shoes tells us about the soldiers serving at Magna. In a YouTube video from July 2025, which you can see here:

<https://www.youtube.com/watch?v=LITN-cc8kco&t=112s>

Dr. Elizabeth Greene discusses the significance of the Magna shoes.

'Your Questions' continued...

In April, a request came from **André Veldmeijer** for opinions on some small wooden boards from Egypt (1-3 opposite) which he thought might have some connection to shoes or shoe-making. The details were circulated but received no response. It seems worth looking at them again, at the very least to see if any member can suggest an alternative origin for them.

André wrote:

My colleague Dr Monika Zöller-Engelhardt contacted me about wooden objects they found in Athribis, Middle Egypt (Byzantine and early Islamic period). She thinks these could be moulds or parts of footwear. Now, I don't know any footwear from ancient Egypt that had wood, at least not in the way European footwear had. And I also never heard of moulds of this kind, from Egypt nor from elsewhere?. But perhaps others know about it? Attached are three images. [see opposite]

They are fragmentary wooden boards, flat or slightly curved upwards, with various small holes along the outer edge or some scattered over their surface. After some thought, it occurred to me that these could be ancient shoemakers' templates for making leather sole shoes (or even might be part of the shoes?) – the size would fit and several (leather) shoe soles were found among the other materials from the excavation.

Editor's comment:

Looking at these objects again what comes to my mind are the holes you might see at the edges of a wooden basketry base (some modern examples below). It would be interesting to know if the same excavations produced fragments of basketry or other woven plant material. Such material might also have been part of furniture items, e.g. chairs, as well as of baskets as such.



Well, what do you think? Is there some relation to footwear - or what else can you suggest?



1



2



3

In May the group received a message from **Ana Catarina Garcia** in Lisbon. Specifically, her enquiry was about joining the ALG but the information she gave us about the project she currently leads in Lisbon was most interesting and is worth recording here for future reference. She wrote:

*My name is Ana Catarina Garcia, and I am the Principal Investigator for a project at NOVA University (Faculty of Social and Human Sciences) in Lisbon, called **DUST - Waste and debris in modern port cities: contributions to a marine environmental history**:*

<https://cham.fcsh.unl.pt/en/research-profile.php?p=1672>

Our project is currently focussing on the study of leather and cork related to footwear recovered from an excavation in the riverside area of Lisbon, dating from the 15th to the 17th centuries. We are starting footwear studies in Portugal, where very few studies on this topic exist. I am writing to share our most recent article, which aims to provide an overview of what is known about footwear in Portugal and the Iberian Peninsula for the early modern period. Please feel free to include it in your bibliography list.:

From the Sea to the Land: An Archaeological Study of Iberian Footwear during the Early Modern Period

<https://www.mdpi.com/2571-9408/6/2/48>

Currently, there are no specialists in this field in Portugal so all contacts with specialists are welcome. New finds from our project were presented at the Society for Post-Medieval Archaeology conference in Lisbon in April 2025 [photo below].



Ana Caterina's email was circulated to members and received two replies. **Sue Winterbottom wrote:**

The work you are involved with on marine deposits is very impressive and the article at www.mdpi.com will certainly be of interest to our members. We have one Portuguese member, Franklin Pereira, whose particular interest is Portuguese leather carving on furniture, and leather wall hangings. He studies footwear as well, and regularly contributes to our newsletter.

I hope you do join the ALG because I think the input of you and your team will be valuable to our group. We have few contacts with archaeologists in the Iberian peninsula although a couple of years ago two of us helped with the registration of shoe finds from

rescue excavations in Irun, in the Basque Country. The history of that area is bound up with maritime exploration and whaling in a similar way to that in Lisbon and I wonder if you have had any contact with the museum there in connection with your researches.

Quita Mould also replied:

Dear Ana

The Archaeological Leather Group has just passed on a link to your article on footwear from Lisbon. Thank you very much for sharing your article with us all, I did enjoy reading it and finding out about your leather shoe finds. Welcome to the group, it will be very interesting to hear about your work and learn about the leather from your part of the world.

I work mainly on British leather but a few years ago (back in 2019) I went for a very few days with Sue Winterbottom to very quickly assess some leather from Gipuzkoa, Northern Spain at **Fundación Arkeolan** in Irun hosted by Zohartze Galan. They were also just starting to look at the leather finds from excavations. The leather that we saw was medieval in date mainly 13th to 14th century and the few shoe styles that I recognised were styles also found elsewhere in NW Europe.

Ana wrote back:

Thank you Quita for all the information! We are now at a very interesting stage of the DUST project, opening excavation finds every day and discovering shapes, trying to identify them so we can create our typology. We are working with chronologies from the late 15th and 16th centuries. However, we have no references for these chronologies in Portugal. So it's very good to know about this contact in Spain. Most of the artifacts end up dry and forgotten in bags without even the information about the shapes being recorded. I will try to get in touch with them.

We will keep you updated on our discoveries.



ICOM CC Leather and Related Materials Group 13th Interim Meeting:

Leather Conservation for Today

De Montfort University, Leicester
October 30 and 31, 2025

It's still not too late to register for the triennial meeting of the **Leather and Related Materials** working group, which will be held in the UK this year for the first time in several decades. These meetings bring together an international cohort of conservation professionals working across a wide span of museum collections, including Natural History, World Cultures, Fashion, Automotive, Decorative Arts and Book and Archive, to share new research and techniques relating to the conservation of leather, parchment and other skin materials.

The conference will be held at De Montfort University over the course of Thursday 30th and Friday 31st October 2025, with optional technical visits on Wednesday 29th and a number of social/networking events. There will be a hybrid element, with presentations broadcast live via Microsoft Teams for those joining remotely.

The theme of the conference is "Leather Conservation for Today." The aim is to explore key issues facing the specialism today, exploring new and innovative treatments, techniques and perspectives across the wide category of leather and skin materials. The conference programme will consist of a mix of formal, informal and social events. Posters will be available to view throughout duration of the conference. Attendees will receive free admission to various heritage sites throughout Leicester, including the Leather Conservation Centre.

You can see the programme of events covering Wednesday to Friday as well as an updated list of paper, poster and video topics here:

<http://bit.ly/4omZrzj>

Registration for in-person attendance remains open until 30th September, while you can still register for remote attendance as late as 30th October.

New Publications:

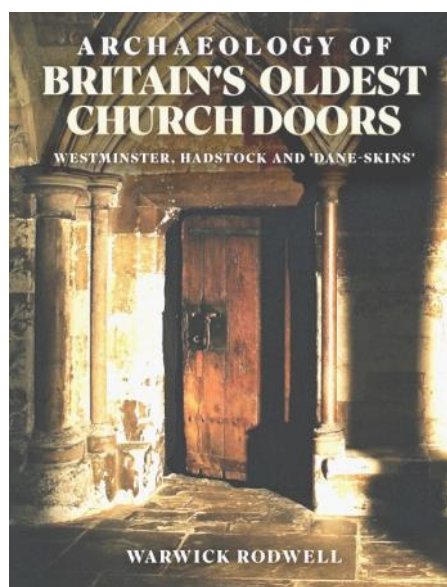
Archaeology of Britain's Oldest Church Doors

Westminster, Hadstock and 'Dane-skins'

by Warwick Rodwell

The well-known British archaeologist and architectural historian has a new book coming out in October this year which looks at the practice of covering early church doors with animal hide. Since the 17th century many have believed such remains to be the flayed skins of Viking raiders but Rodwell discredits the theory for various good reasons (including their date and the fact that the skin had been applied during construction and not attached subsequently). He looks in particular at a Saxon period door in the Chapter House at Westminster Abbey and at the north nave door at Hadstock Church in Essex, dated to the 1060s–70s. The book will be published by Oxbow Books and more details can be found here:

<https://www.oxbowbooks.com/9798888572290/archaeology-of-britains-oldest-church-doors/>



Analysing Roman hobnail footwear in soil blocks using radiography: Design, dating and identities

by James Elliott

Senior lecturer in Diagnostic Radiography, Faculty of Medicine, Canterbury Christ Church University

In November 2023 James Elliott got in touch with ALG to request a copy, if available, of an article from ALG Newsletter No. 1 (second se-

ries) on the classification of hobnail patterns on Roman nailed shoes. He was researching the potential of X-ray imaging to provide information about the size, shape and style of shoes from hobnail assemblages where no leather survives. The material he was working on came from a late Roman cemetery in Canterbury.

We were able to supply the article and to refer him to subsequent work on nailing patterns, some of which he was already aware of. It just so happened that the newsletter for September 2023 (No. 58) contained a discussion of the interpretation of hobnail patterns where no leather survived and this was also shared with James.

His work has now been published in the **Journal of Archaeological Science: Reports** series and he has shared this link:

<https://doi.org/10.1016/j.jasrep.2025.105400>

It is a very thoughtful article and he makes the point in the Abstract that some information about the occupant of a grave - such as their sex, age or social status may credibly be inferred by this method, even when no skeletal remains have survived.



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