

A northern emporium

UNEARTHING THE BEGINNING OF THE VIKING AGE IN RIBE

As 8th-century Scandinavians mastered the secrets of long-distance sailing, a new sort of settlement appeared on the coast: the town. These fledgling commercial centres lack the monumental civic buildings often associated with early cities, but they still heralded an extraordinary new way of life.

Søren M Sindbæk is investigating how the emporium at Ribe laid the foundations for the Viking Age.

It should not surprise us that Viking Age Scandinavians, who invested serious resources in developing the hardware and know-how for long-distance navigation, also created maritime towns and markets. One of the great legacies of the Viking Age was the creation of the earliest urban network around the northern fringes of Europe.

The century leading up to the Viking Age – that is, the 8th century AD – witnessed a proliferation of coastal and riverine trading towns in natural harbour sites along the North Sea and Baltic coast. That such emporia suddenly prospered is inextricably linked to the development of long-distance sailing. There would have been little point in scattered, coastal communities

BELOW Uncovering the clay floor of a substantial house from the early 800s. The size and structure of the building are a clear indication that at this stage the emporium was a densely settled area with a resident urban population. The building would have faced the plank-paved street, appearing as a dark area in the foreground of the picture. The sides of the building have sunk towards an adjacent drainage ditch, hence the floor is now leaning.

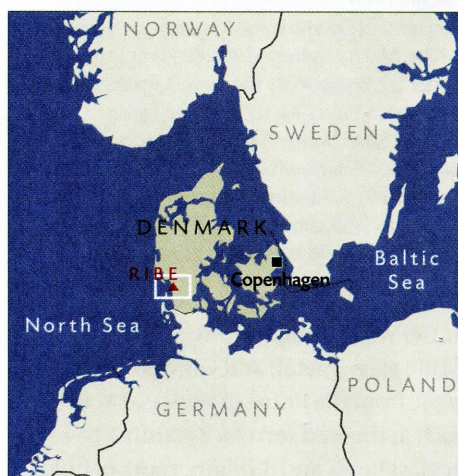
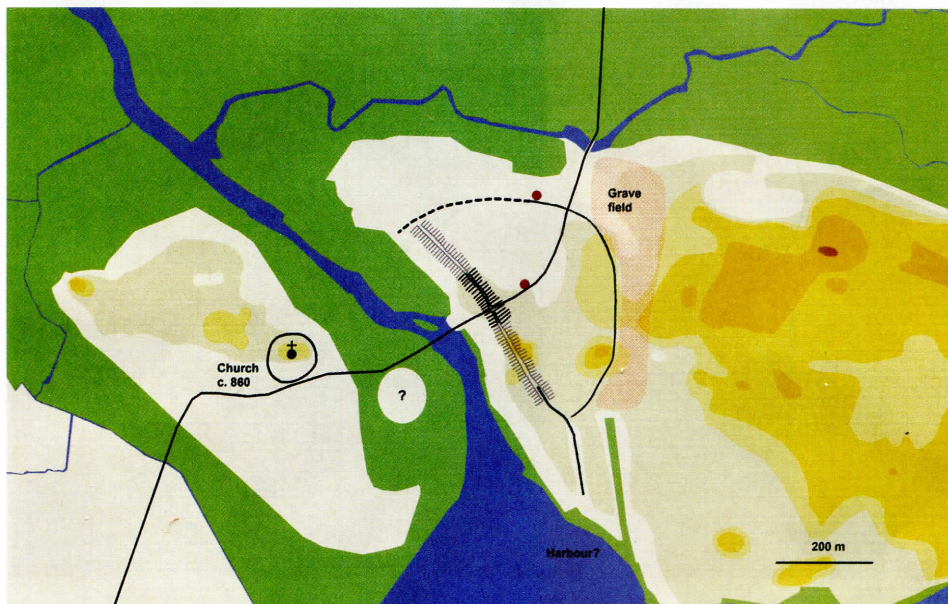


constructing large sailing vessels, capable of carrying bulky cargoes, or in honing their skills to sail them on the open sea, unless there were places where this investment in equipment and expertise could deliver a handsome reward. As such, trading places were integral to Viking maritime expansion. The prospect of raiding the hall of a foreign grandee, or sacking an unsuspecting monastic community, might be alluring enough; but even looting was a precarious business plan without places where the things you plundered could be converted into the things you needed. The history of the Viking Age therefore goes hand in hand with the history of the first urban settlements on Europe's northern seaboard.

Trading places

One of the earliest and most active nodes in this maritime network lay on the west coast of Denmark at Ribe. Early activity there is a far cry from the sorts of early cities portrayed by archaeologists working in many parts of the ancient world. Viking Age Ribe boasts no remains of temples, palaces, public monuments or city walls to captivate modern tourists – and probably never had them in the Viking Age, either. Yet, in other respects, the archaeology of Ribe is conspicuously urban. Not only in terms of the abundant evidence for long-distance trade – stretching from Arctic Norway to the Mediterranean – but also in terms of a community where every household along the crowded main street practised a special craft, be it the manufacture of iron knives, antler combs, amber amulets, glass beads, bronze and silver jewellery, or locks and keys.

The motor that fuelled these activities was neither tax collection nor temple revenues. Ribe was founded for trade and created a focal point in the expansion of maritime communications. Of course, such mercantile motives were not unique to Scandinavia, and comparable trade-driven 'network-cities' have come into archaeological focus in recent years, ranging from Tell Brak in ancient Mesopotamia to Tadmekka in medieval Mali. Among these diverse examples, though, the Viking emporia of Scandinavia remain extraordinary and enlightening cases to explore.



ABOVE The early settlement was centred on a street following the northern bank of the Ribe river. Remains of the earliest cemetery were spread on the sandy hills to the east of the drove way, which approached the emporium from the north. Christian graves from as early as the 9th century have been found in the area of the current cathedral, west of the river.

There is little we can take for granted about such settlements, as the logic of a community nourished by long-distance trade routes is very different from the more keenly studied support structures of agrarian city-states. To understand how these trading places could rise and grow – often in regions where no towns or cities had existed before – we have to ask how an urban economy could thrive in such marginal locations. This, in turn, raises further questions about what it was like to live in or visit these emporia. In order to study Ribe, we need to look beyond city walls and eye-catching public infrastructure – which so often beguile archaeologists working on early cities – and explore how everyday life was lived.

Over the last few years, new excavations and discoveries in Ribe have raised questions about many long-standing

beliefs concerning Viking cities: from the timing of their rise and fall to the actions bringing about their creation. Recently, our team has embarked on one of the most ambitious excavations ever undertaken in a Viking emporium to try to solve some of these questions. We are currently spending over a year excavating a section of the main market street, to follow the development of houses, booths, and workshops in the decades bracketing the tipping point of maritime expansion in Scandinavia, taking us into the 1st century of the Viking Age. The results are opening a window into the life of the first urban community in Scandinavia – and into the shifting currents of trade and communication that flowed through this maritime gateway, allowing us to trace the evolution of networks from Tromsø to Cologne, Byzantium, Baghdad, and beyond.

The remains of early Ribe have survived remarkably intact in places. In the centre of the Viking town, along the northern bank of a river that funnels the North Sea tides some 5km upstream, the story of a developing community and its engagement with a widening world is preserved within up to 3m of ▶



stratigraphy, which spans some 200 years from around AD 700 to 900. This unique archive has become a pivotal place for Scandinavian archaeology since it was first discovered by Mogens Bencard in the early 1970s. Excavations over a number of years have expanded our knowledge, although these investigations are often hampered by the fact that Ribe is still a thriving town. Its modern buildings and roads have a tendency to overlie areas with the best archaeological potential!

Unravelling Ribe

In 1990-1991, Claus Feveile – the veteran of our current team – co-directed the so-called ‘Post Office excavations’, which have become legendary among Viking archaeologists. Claus and his colleague Stig Jensen turned a rescue project on the site of a new Post Office into an impeccable research effort, revealing how the emporium had a planned layout from very early on, creating a regular grid of house plots fronting onto a street. This structure was maintained throughout the life of the settlement. Claus’s excavations also demonstrated how Ribe’s stratigraphy allowed the site history to be broken down into tightly defined phases – sometimes only a decade in length – creating a new and firmer chronology for the history of the early Viking Age.

Previous excavations at Ribe have also yielded a rich trove of finds to document the wide contacts its occupants exploited: whetstones, iron, and reindeer

ABOVE Amber can be found in quantity on the west coast of Denmark, and was worked extensively in Ribe. Much was turned into beads or gaming pieces, but occasionally the carver created more ambitious amulets like this tiny bird figure.

BELOW Sarah Skytte Qvistgaard is uncovering a stone-lined hearth, which was once the focus of a household in the early Viking Age emporium. The section above the hearth cuts through a series of clay floors from later buildings.

antler were brought from Norway, while glass, metal, and wine pitchers came from the Rhine provinces. Exotics such as the lead seal of a Byzantine envoy, or glass beads and dirhams, speak of links with the Mediterranean world. Such artefacts highlight Ribe’s role as a hub in a trading network.

What could not be adequately teased out from the earlier excavations was the character of this unusual settlement. What did the streetscape and its individual houses look like? Were the first inhabitants foreign settlers or local entrepreneurs, and did early Ribe attract wealthy artisans and merchants, or dependent labourers and outcasts seeking a new start? The task of solving these questions has daunted researchers for decades because of the very considerable resources that would be required for wide-ranging modern excavations. Now, thanks to a substantial donation from the Carlsberg Foundation, we can finally fully capitalise on Ribe’s potential to follow the evolution of an early Viking Age town.

Since the excavations started in June 2017, we have opened an extensive trench in the heart of early Ribe, which has exposed an almost complete house plot, a section of the market street, and part of the plot on the opposite side. Anyone expecting to find Pompeii-style standing buildings or street decor in a Viking town is in for a disappointment, though. The preferred building materials in early Ribe were wood, wattle, heather, and reeds. Although the resulting buildings were once sturdy constructions, they have been reduced to razor-thin horizons of dark powder. Floors that were formerly level now form small mounds and troughs, as organic middens under one section have sunk, while ash-hills, patches of sand, or clay



floors have supported others. Excavating in Viking Ribe thus means painstakingly peeling back thin horizons of organic matter. Separating features preserved in this way can be an agonising task, but it is the only way to discover and reconstruct the houses and streetscape that once formed the backbone of the emporium.

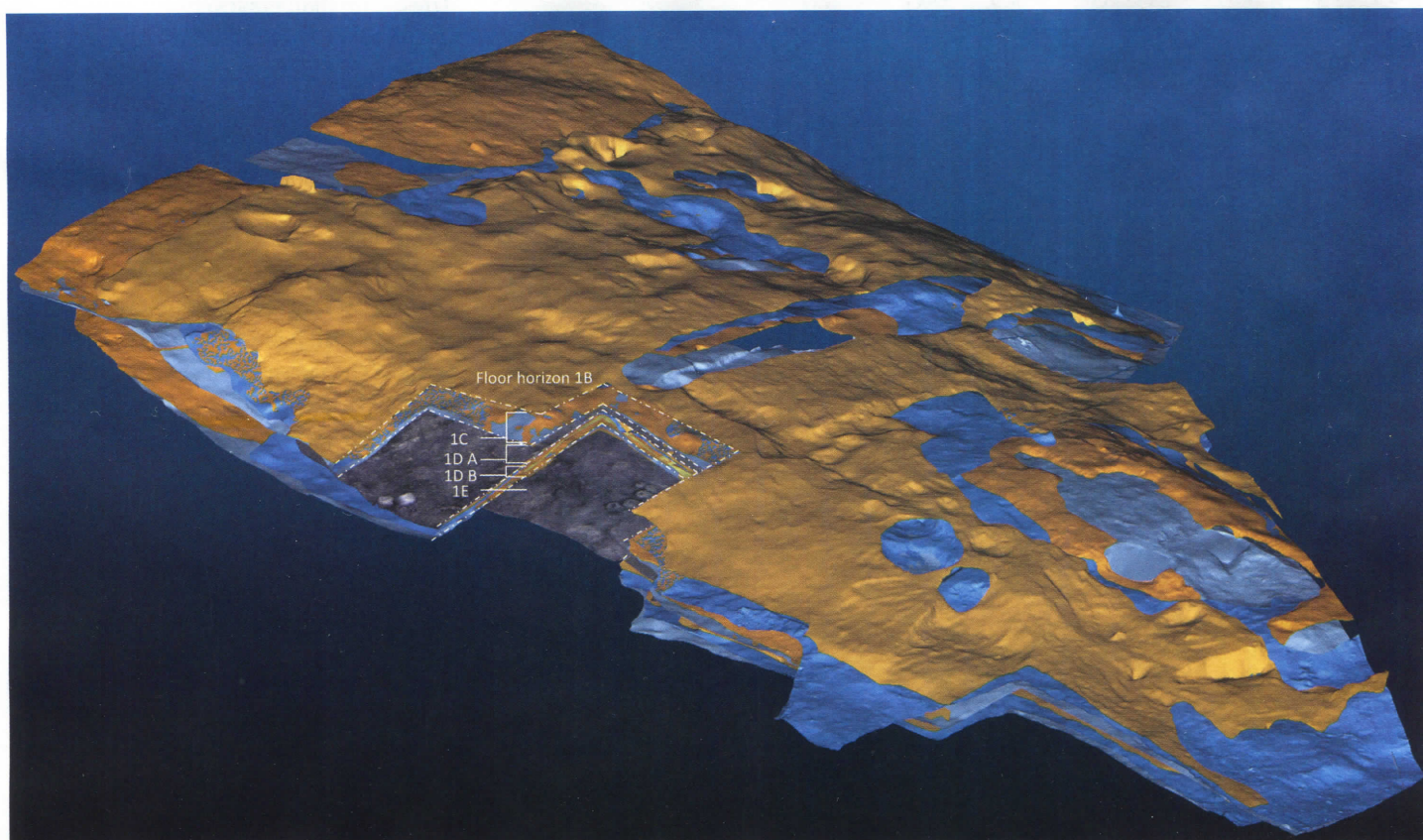
Our response to this challenge is to develop what we call 'high-definition methods'. Our toolkit for this purpose has been created with colleagues at the Centre for Urban Network Evolutions – UrbNet – at Aarhus University. This one-of-a-kind research facility for urban archaeology leads the development of new fieldwork practices based on ongoing excavations across Africa, the Middle East, and Europe. We have harnessed the recent development of 3D laser-scanning to create a detailed record of every one of the hundreds of surfaces uncovered. Combining this approach with a range of analyses, including soil micro-morphology and geochemistry, and sieving soil samples down to fractions of a millimetre to collect micro-debris like plant and insect remains or microscopic workshop slag, allows us to piece together the function of every room and building within a narrow



ABOVE The complex stratigraphy of a Viking emporium calls for 'high-definition methods'. Here, block-samples are carved from the section of a modern pit. The blocks will be divided into thin section slides, which can reveal the detailed history (or micro-morphology) of the floor layer: The yellow layers in the section are a series of clay floors from wooden buildings from the 9th century AD. **BELOW** 3D scans are a new way to analyse and store the complex excavation data. In this example – prepared by Sarah Croix – the floors of the Viking Age buildings (yellow) and the intervening activity layers (blue) can be compared, one on top of the other. The holes in the top floor are later truncations. The soil-grey cutaway shows an area with metalworking debris (left) overlying a floor with loom weights (right).

time-frame. These investigations will show, for example, whether the earliest activity layers display signs of seasonal activity or permanent settlement, as well as how long it took for the place to become densely built-up as an urban settlement.

The carefully uncovered house remains are the most striking features we have revealed. In one phase after another, we can walk the floors used by Viking Age town-dwellers and detect the traces of rooms, doors, hearths, and workshop areas. Combine this data with the abundant finds, and the specialised crafts and wide ▶





ABOVE Excavators Sarah Croix and Maria Knudsen uncover a group of objects lying in a corner of a metal workshop: fragments of crucibles, a piece of a grindstone, and a small container carved from whale bone. Patches of charcoal, small droplets of bronze, and broken casting moulds show that fine copper-alloy ornaments were produced in this room.

ABOVE RIGHT This 8th-century AD Frankish wine-pitcher was produced in the Mayen region of Germany, and brought to Ribe. It was found undamaged in the early cemetery, where it had been reused as an urn for the cremated bones of a small child.

trade network characteristic of this unusual settlement start to emerge as parts of the daily routine of its inhabitants. In this way we can follow, for example, how a building used at one point as a metalworker's workshop was transformed into a domestic house, where a large loom occupied the space of the former smithy.

Both the diversity of activities and the frequency of changes testify to the impact

shifting and developing urban networks could have at a human scale. Careful study of the remains of the emporia's former occupants allows us to reconstruct their story in even greater detail. For some years before we embarked on the present market-street excavation, our team explored the cemeteries of early Ribe.

First settlers

While graves have contributed much to knowledge about Viking Age emporia such as Birka in Sweden or Kaupang in Norway, until recently Ribe had relatively few recorded graves. This changed when my colleague Morten Søvsø found the unexpected remains of a vast Christian cemetery, dating back to the 9th century. These Christian graves cluster around the present cathedral, almost certainly indicating that the first church to occupy this plot also belongs to the 9th century. This is far earlier than any other Christian burial ground known in modern Denmark, and it stretches back more than a century before King Harald Bluetooth claimed to have 'made the Danes Christian' on a monumental rune stone raised in Jelling in the 960s. Even if some of the deceased were visitors from abroad, the quantity of graves – estimated to number several thousand – must testify to some success on the part of the Frankish missionary Anskar, who received permission to build a church in Ribe around 855, as his *vita* tells us. Ribe, then, was a place of religious as well as mercantile exchanges.

LEFT Glass beads are some of the most frequent finds in Ribe, and a marker for changing fashions and trade currents. In the 9th century, from which most of these finds date, the majority of beads were imported from the Middle East.



Even more recently, we have investigated earlier graves that belong to the first occupation of Ribe in the early 8th century. This cemetery sprawls along a low, sandy hill in the northern outskirts of Ribe, and has aided our appreciation of the early development of the town. The burial rites practised there were strikingly varied: we found cremations in urns or in pits, and inhumations placed in coffins, logboats, or without any visible container. Among the human burials were those of animals, specifically dogs and horses, with one of the latter buried with an ornate saddle and stirrups. Small mounds were raised over some burials, while a number were furnished with elaborate grave goods.

In one grave, a complete wine-pitcher – imported from the Mayen region of Germany – held the cremated bones of a small child, together with glass beads and comb fragments. In another, a young adult was buried in a coffin with a belt fitting that matches casting moulds from Ribe workshops, and a purse containing the standard local currency: a small silver coin, or sceatta, of the ‘Wodan/Monster’-type. Other graves were furnished with beads or metal ornaments of a type produced in Ribe. Analysis of the bones has revealed a population composed of men and women of all ages, including a large number of children.

My colleague Sarah Croix, who is now working on these finds, points out that this mix is hardly what you would expect if Ribe had emerged as a seasonal trading camp, as some have suggested. Those buried must have formed a settled community of families from early on. Yet the diversity of burial rites could hardly occur if they had all come from the same region, while the crafted or traded objects found in their graves suggest they were intimately interweaved with the network of the emporium. These people are, in fact, the spitting image of a culturally and economically diverse urban population – all the more fascinating given that they lived in a corner of the world where towns were unknown until their generation. It



ABOVE & BELOW This elegant comb was cut from multiple pieces of deer antler and assembled with iron rivets. Combs like this were made in large numbers in Ribe, as the prolific debris from workshops found in excavations testifies. The almost complete – albeit fragmented – comb allows us to follow the meticulous work of the comb-maker, although the most intriguing detail was apparently added by another hand: a set of runic inscriptions. The detail below shows the runes *kaŕmibaR* – ‘comb’.

is this transformation into a new type of society that makes Ribe so fascinating.

Mass production

By now, it will be obvious that it is neither the size nor monumentality of the settlement that makes us think of early Ribe as an urban community. Assessed by such measures, many ancient cities, and even some Neolithic villages, would dwarf our little seaport. What gives Ribe

a distinctly urban character are the abundant networks of craft and trade. Such remnants are often not on the bandwidth urban archaeologists are tuned into. Some details are obvious, like the coins or beads, which arrived from the Middle East.

We can tell that glass beads were transported in sizeable shipments, not just from the quantity found, but also from the fact that many were faulty stock, which had clearly been sorted and discarded after arrival. Evidence of other networks is more subtle, like the Norwegian reindeer antler used in comb-making workshops: such an origin can only be revealed by biomolecular analyses. In many cases, we need to combine new archaeological science with a deep knowledge of crafts and artefacts in order to unveil the archaeology of urban networks.

Some of the most telling evidence comes from the town workshops. The true treasures of the excavation are the traces left by the artful Viking Age jewellers. Several building floors were still littered with fragments of casting moulds, crucibles, tuyères, and other scraps. These telltale traces were found alongside slag, charcoal, and droplets of metal, which makes it evident that such spaces were once the workshop of professional craftsmen. They produced keys, pins, pendants, buckles, brooches, and ▶



other necessities required by well-to-do Scandinavians, in particular rich fittings for women's dress ornaments.

Clay moulds, used for lost-wax casting, reveal traces of the impressive design skills of the urban artisans. The Vikings are famous for their representations of intricate interlaced animals, known as the 'gripping beasts'. This motif adorns everything from brass dress accessories to the wood carvings of the famous Oseberg ship burial (see CWA 45). Now casting moulds from workshops in Ribe have produced the earliest version of this design ever found, dating to the decades just before AD 800. As this detailed design seems ideally suited to the new, more intricate casting technique introduced at this time, it may not be too far-fetched to propose that this style icon was invented in the creative white-heat of Scandinavia's first town.

The technology found in the Ribe workshops was not just capable of

realising more intricate designs. It was also geared towards a different scale of production compared to that attempted by rural craftspeople elsewhere in Scandinavia. Rather than creating custom-made items for individual patrons, the craftworkers in Ribe and other emporia introduced a process by which a single master-model was used to produce dozens or even hundreds of almost identical clay moulds. Such mass production hinged on the urban network, both to supply raw materials in quantity, and to offer access to buyers over wide areas. This might explain why a design pioneered in a small harbour town came to prevail across large parts of the Viking world.

Runic revolution

Two lucky finds point to another fixture of Viking Age Scandinavian culture, which Ribe's networks may have helped to propagate. An almost complete comb bears a rare runic inscription dating to

the early 9th century. On one side of the comb are the runes *kqbaR*. This must be the word 'comb' or *kambR* in Old Norse. On the other side are first the two letters *ai*, which cannot be explained, and after that four runes *kama*, which must be the verb 'to comb' – *kæmba* in old Danish. Another find, a small bone plate, also bears a runic inscription, finely carved, albeit incomplete and therefore ambiguous to read.

These are two of the earliest known inscriptions using the Viking Age runic alphabet, which was developed around AD 800. There are hundreds of texts written in runic from the time when this script was well established, in the

centuries between AD 900 and the 1300s – indeed citizens in medieval Bergen, Norway, would use the runes for everyday messages like love letters or receipts for payment; but only a precious few texts survive from the crucial time when the runes were reinvented. The new finds add to a corpus of only about a dozen found across the entire Viking world, most of which have been known for a very long time.

Runes were first invented during the Roman period, but had almost gone out of use in Scandinavia when, around AD 800, a new runic alphabet emerged. Runologists have debated how and why the art of writing was reinvented. This is hard to deduce when there are only a handful of inscriptions to go on, so two more inscriptions make a difference. The Ribe finds show varied uses: one text is a scribble on a personal object, the other careful decoration on a fine bone artefact. Add to that two inscriptions found previously at Ribe: an owner's mark on a bone object, and a piece of a human skull with a magic spell. The practice of writing must have been in common use in the earliest Nordic town – more so than in the countless rural sites where similar objects are found, but without any trace of writing.

Writing has a particular connotation with urban societies. The multiple encounters, the large numbers of people, and the essential links to distant places all encourage the use of a medium for curating durable records. It is hardly a coincidence that the early evidence for the reinvention of runes clusters in Ribe.

Forging networks was the common business of the assorted groups who settled in Ribe, be they rune-writers, comb-makers, bronze-smiths, weavers, sailors, or merchants. It was also on the agenda of the many people who must have visited the place, bringing glass vessels, beads, metal ingots, wine jars, or reindeer antler. The incentives created by making these different goals meet in a riverside port at the intersection of many different worlds supplied the spark that forged the first urban community in Scandinavia. Indeed, that spark was probably also a catalyst for the maritime adventures of Scandinavians as they stood on the threshold of the Viking Age. ■



LEFT Highly decorated glass vessels, most likely produced in workshops in the Rhine provinces, were popular in early Ribe. The fragments of a red vessel with white trailing shown at the bottom right were found scattered across an early 9th-century house floor. It was probably used – and lost – in the household.