

Tool story

Owen Humphreys has condensed his PhD research into a publication that has immediately become a 'Bible' of Roman London's tools. And not only that – it's also a fascinating read.

Here he extends LA's usual FINDSPOT feature to describe his research and how he has combined a body of evidence including objects, waste, tool marks, structures, epigraphy, iconography and classical sources to illuminate the stories of the practices and experiences of both makers and users.

RIGHT Wooden barrel from I Poultry (ONE94), re-used as a well lining
© MOLA

Excavating the archive

London is one of the most extensively excavated Roman cities in the Empire. Centuries of exploration have recovered thousands of unique finds, many exquisitely preserved in London's waterlogged soils. But unless you are able to visit London's museums, you might not know that. Publication has not kept pace with excavation, and there is now a massive backlog of historic collections in London's museums and archives. This is a treasure trove of information that can be mined more effectively than any new archaeological site.

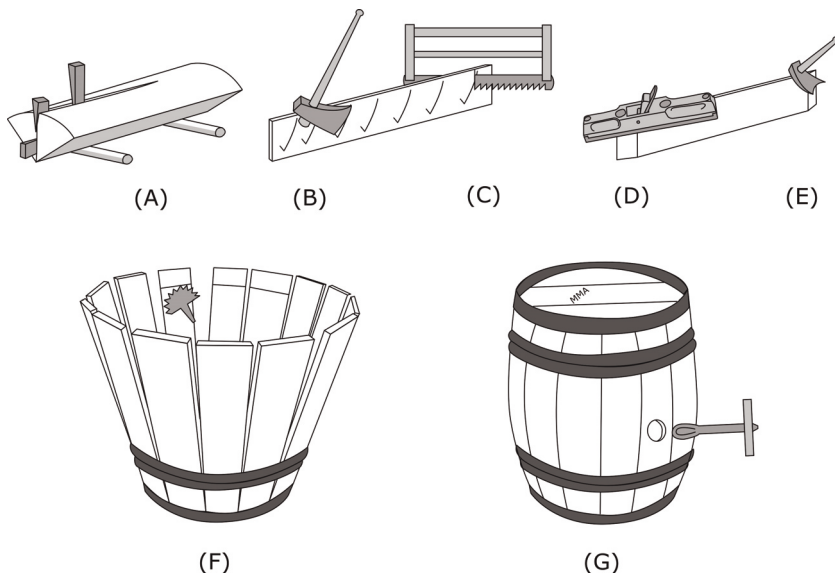
Among these unpublished collections is one of the largest assemblages of craftworker's tools in the Empire. This new book, the first monograph dedicated to a group of Roman small finds from London, is the result of a collaborative PhD project between the Museum of London and University of Reading to understand this unique collection and make it available for wider study. Drawing on objects from multiple collections, including those of the Museum of London, British Museum and MOLA, this book provides a holistic analysis of 837 Roman tools from



the city, synthesised with a raft of further evidence from excavated structures, waste, tool marks, documentary sources and ancient art.

The tools gathered in this study form an important resource for identifying, dating and interpreting Roman tools. Photographs and illustrations are provided for every object, and typologies were created for over 50 separate tool types, with parallels identified from across the Roman Empire. However, from the outset this project was intended as more than a typological exercise. This body of data has the possibility to inform and change our understanding of the economy and society of an important Roman city. Most directly, it can be used to investigate the lived experience of working people in London nearly 2,000 years ago.

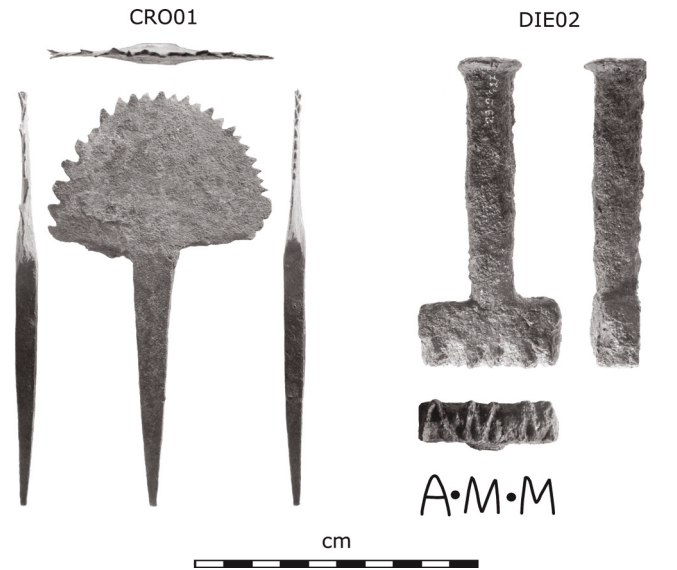
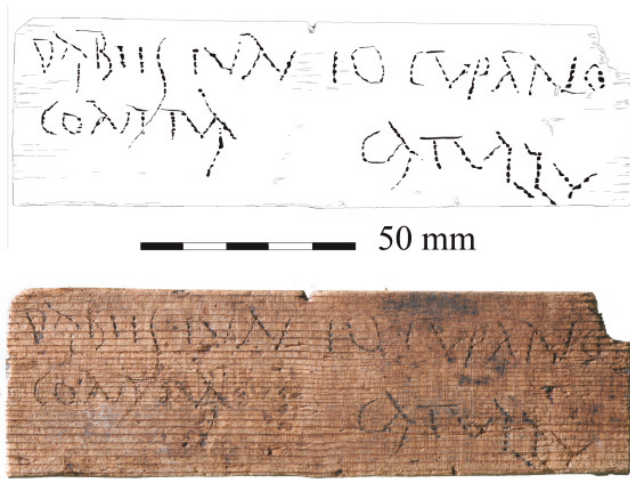
BELOW The stages of barrel-making



Going to work in Roman London

One of the key takeaways from this study is how specialised ancient job roles could be. Roman workers might only work in a particular material, or make just one type of product. But we can go even deeper than that. When we think of craft specialists, we tend to imagine independent master artisans. In Roman London, specialisation could take on many forms, all intimately tied to the wider economy and society of the city, and each creating a very different lived experience for the worker.

Cooperage (the manufacture of stave vessels, such as barrels and buckets) is one example of this.



Cooperage is directly evidenced in London by tools, documentary sources, wooden waste, and even whole barrels (left). Each of these sources adds to our understanding of this profession.

Analysis of the tool marks preserved on wooden barrels allows us to reconstruct the construction process (opposite). This style of cooperage required a large suite of tools, including adzes, axes, croze irons, dies, drills, planes, saws and wedges. The stave planks were made by splitting timbers radially (A). These were then trimmed with broad axes (B) and cut to length with cross-cut saws (C). The ends were planed (D) and hollowed with adzes (E). A croze (the groove into which the head was inserted) was then cut with a croze iron (F), and the head was inserted. Roundwood oak bands held the barrel together, and they were sealed with hot pine resin. Finally, bung holes were drilled and stamps applied (G).

Most of these tools have been found in London. A croze iron, a distinctive type of round-headed saw, which is unique to the cooper's trade, was found at the Bank of England in the early 20th century (above right). More recently, a writing tablet was discovered during excavations for the new Bloomberg headquarters, addressed to 'Junius the cooper' (above). These finds provide clear evidence of cooperage as a profession in Roman London.

However, the types of broad-bladed axes used in cooperage are not found in London. Most of the barrel timbers from London are made of silver fir which does not grow in Britain. This indicates that most of London's barrels were manufactured in Europe and imported as wine containers. How then do we explain the presence of a croze iron, and what was Junius doing with his time?

The use of a croze iron suggests that casks were at least being cut down and fitted with new cask heads. This is supported by offcuts from refashioned barrels found in the city, and may indicate that the coopers of London were primarily engaged in refurbishing rather than manufacturing barrels.

Another tool perhaps used by a London cooper is the letter die, used to stamp barrels (top right). Stamps were applied to barrel staves for various reasons during manufacture and transit (right), with

some on the inside of barrels almost certainly being applied by the coopers. Most of these stamps comprise three initials, representing a *tria nomina*, a sign of Roman citizenship. Whilst classical sources indicate a disdain for trade amongst the citizen class, finds like these demonstrate that, in reality, Roman citizens could take a controlling interest in crafts as niche and prosaic as the refurbishment of old wine barrels.

Taking all this evidence together, we can see the cooper in a new light. Certainly a specialist, and using highly specialised tools, they were nevertheless far from the ideal independent artisan. London's coopers depended on the continued importation of new barrels from the Continent to use as their raw materials, and represent only one stage in the life of these objects. Nevertheless, 'being a cooper' clearly became part of people's self-identification, and was lucrative enough to attract the involvement of Roman citizenry.

This is just one story of working life in Roman London. The tool assemblage from the city represents a plethora of trades under the umbrellas of agriculture, animal husbandry, woodworking, metalworking, leatherworking and pottery-making. But to find out about those, you'll have to buy the book.

ABOVE LEFT Writing tablet <WT14> from Bloomberg, London (BZY10), addressed to Ionio Cupario / 'Junius the cooper' © MOLA

ABOVE Coopers' tools from London: croze iron and die stamp (Courtesy of the Trustees of the Museum of London)

BELOW Stamp over the bung of a barrel from I Poultry © MOLA



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