



Frontispiece 1. 'River' 2024. Painted collage by Rose Ferraby. 'Soundmarks York' is an exhibition and art trail by Rose Ferraby and Rob St John that explores the Roman archaeology of York, UK. It presents sound and visual art inspired by old and new discoveries as part of the AHRC-funded project 'Roman York Beneath the Streets' (Universities of Cambridge and Reading in collaboration with York Archaeology). The project focuses on six locations around the city, including the River Ouse. This collage and associated sound recording are inspired by the arterial comings and goings facilitated by the river, and the material lost and found in the sediments beneath its surface. The exhibition runs until autumn at DIG York. The Soundmarks art trails are available at soundmarks.co.uk. Image © Rose Ferraby.



Frontispiece 2. Excavation of a mosque at Harlaa, Ethiopia, 2024. Harlaa was a major Islamic trading town in eastern Ethiopia (see Antiquity 95: 487–507). Earlier work undertaken by the 'Becoming Muslim' Project, directed by Timothy Insoll with European Research Council funding (2016–2022), culminated in a new community museum. The latest investigations, facilitated by a generous philanthropic donation, include excavation of a mid-twelfth- to mid-thirteenth-century mosque. The building will be conserved and will form part of a community-based heritage trail to generate tourist income. In addition to the local community in Ganda Biyo (Harlaa), the project partners are the Dire Dawa Culture and Tourism Office and the Ethiopian Heritage Agency, with the participation of Ethiopian PhD students Temesgen Leta and Endris Hussein of the University of Exeter. Photograph © Rachel MacLean.



EDITORIAL

Smoke on the water

☞ In an age increasingly riven by disagreement and conflict, one thing unites most of the world's population—the consumption of caffeine. In a recent book, Michael Pollan notes that as much as 90 per cent of the Earth's eight billion inhabitants regularly ingest this psychoactive drug; indeed, “to be caffeinated to one degree or another has simply become baseline human consciousness”.¹ For caffeine addicts, a morning cup of tea or coffee is both an essential and pleasurable start to a productive day. A very different family of habit-forming drugs is opiates. Widely used in healthcare as well as an illegal narcotic, in recent years the rise of powerful and highly addictive synthetic opioids such as fentanyl has left as many as 60 million people globally dependent, with tens of thousands of these dying every year.²

The use of plant-based drugs, whether for medicinal purposes or for their mind-altering effects, has a deep history. For millennia, humans have smoked, ingested, snorted or otherwise consumed a variety of substances to manage their health and to alter their consciousness in search of pleasure or the ability to communicate with ancestors and deities. Such practices even pre-date our own species. Neanderthal populations in Iberia, for example, ingested bitter-tasting yarrow and camomile, likely for self-medication.³ Archaeologists and historians have long studied the human use of drugs and medicines, both the effects on individuals and the wider contexts within which the production and exchange of these substances was organised. In his latest book, Amitav Ghosh considers the historical role of opium, arguing that the poppy should be recognised as a non-human actor with the agency to influence wider social, political and economic developments.⁴ He notes that opium is distinct from other plant-based drugs such as tobacco, cannabis or betel because poppy resin requires significant processing before use and is therefore more prone to entanglement in economic and political forces including, historically, colonial relations between China, India and the West.

Archaeologically, the production and consumption of drugs has generally been approached through iconographic evidence or the material culture associated with their consumption, such as pipes. However, recent biomolecular developments have opened the door to the much wider detection of the presence and use of these substances through chemical traces in both objects and human remains.⁵ Two articles in this issue direct our attention

¹ Pollan, M. 2021. *This is your mind on plants: opium, caffeine, mescaline*. London: Penguin, p.38.

² 2023. Editorial. Opioid crisis: addiction, overprescription, and insufficient primary prevention. *Lancet Regional Health-Americas* 23: 100557. <https://doi.org/10.1016/j.lana.2023.100557>

³ Hardy, K., S. Buckley & M. Huffman. 2013. Neanderthal self-medication in context. *Antiquity* 87: 873–78. <https://doi.org/10.1017/S0003598X00049528>


⁴ Ghosh, A. 2024. *Smoke and ashes: a journey through hidden histories*. London: John Murray.

⁵ Zimmermann, M. & S. Tushingham. 2023. The biomolecular archaeology of psychoactive substances, in A.M. Polard, R.A. Armitage & C.A. Makarewicz (ed.) *Handbook of archaeological sciences*: 591–605. Hoboken (NJ): Wiley. <https://doi.org/10.1002/9781119592112.ch29>

to the past use of plants for medicinal and/or ritual and therapeutic purposes. The archaeology of tobacco is well developed but has focused predominantly on smoking, not least because of the wide distribution of archaeologically visible clay pipes; other methods of consumption such as chewing are harder to detect. In this issue, Adam Negrin and colleagues present evidence for the ritual use of tobacco at Cotzumalhuapa, Guatemala, during the Late Classic period (AD 650–950). While the importance of tobacco in Mesoamerican societies is well attested through textual, ethnographic and iconographic sources, direct evidence of use is elusive. Here, the authors deploy residue analysis to examine three ceramic vases, detecting traces of nicotine that suggest the pots contained tobacco infusions or other liquid preparations. As the vessels were all carefully deposited in caches at the El Baúl acropolis, the authors argue that these nicotine concoctions formed part of ritual practices. The wider and more routine application of such analysis will provide a better sense of the scale and variety of tobacco consumption in early Mesoamerica and beyond.

The second article about drug use in this issue concerns an unusual Roman-period find from the Netherlands: a hollowed bone filled with hundreds of black henbane seeds (*Hyoscyamus niger*). Henbane is a traditional herbal remedy for a variety of illnesses, with both analgesic and narcotic properties, and its use is widely attested in classical and historical texts.⁶ As a weed of cultivated land, it is a common component in archaeobotanical assemblages, but it is difficult to establish whether its presence is incidental—brought home with the harvest—or intended for medicinal or narcotic use. Here, Maaïke Groot and colleagues examine the context and contents of the find. The henbane seeds were uncharred and sealed inside the hollowed bone by a birch-tar plug. The authors therefore argue that this was not a pipe for smoking but a container for storage. The intentional deposition of the container, along with other special finds, in a wet pit points towards the wider practice of abandonment deposits in the rural landscape of the northern Roman provinces. Whether the seeds were to be smoked, made into a tincture or otherwise consumed, and whether for medicinal or hallucinogenic purposes, is less clear; here, the texts of ancient authors such as Dioscorides and Pliny the Elder provide some directly contemporaneous suggestions.

The drugs don't work

 In the modern world, drugs are big business. The scale of the illicit market is huge but can only be estimated, and the destination of the profits is often uncertain.⁷ In contrast, the vast turnover of multinational pharmaceutical companies—both investments and profits—is well known. Like most other big industries, including oil, mining and agrochemicals, most of the profits go to shareholders and pension funds but some is destined for philanthropic purposes. And there are many cash-starved cultural, educational and charitable institutions looking for sponsors and willing to brand a new building with a corporate name or prominently feature a

⁶ Fenwick, R.S.H. & S. Omura. 2015. Smoke in the eyes? Archaeological evidence for medicinal henbane fumigation at Ottoman Kaman-Kalehöyük, Kırşehir Province, Turkey. *Antiquity* 89: 905–921. <https://doi.org/10.15184/aqy.2015.56>

⁷ On the relative and contested scale of illicit trade in weapons, drugs and antiquities, see Yates, D. & N. Brodie. 2023. The illicit trade in antiquities is not the world's third-largest illicit trade: a critical evaluation of a factoid. *Antiquity* 97: 991–1003. <https://doi.org/10.15184/aqy.2023.90>

company logo. The British Museum (BM), for example, first struck a sponsorship deal with the oil and gas multinational British Petroleum (BP) in 1996, helping to finance dozens of exhibitions. But BP's sponsorship has also brought controversy, with growing protests over 'greenwashing'—using the museum to improve its corporate image while continuing to extract the oil and gas that lies at the heart of the climate emergency. In 2023, after years of protests, the BM appeared to have finally dropped its long-term sponsor. But as part of its latest master plan, the museum has now signed a new 10-year, £50m deal with BP.⁸ Carbon, it seems, can be as addictive as heroin.

Some other institutions have kicked the corporate sponsorship habit or, at least, taken steps to distance themselves from funders whose gains are ill-gotten. Perhaps the most high-profile example of philanthropy gone wrong concerns Purdue Pharma and the Sackler family.⁹ Through the development and marketing of pain-relieving drugs, the Sacklers accrued a small fortune, some of which was directed via the Sackler Trust to the sponsorship of cultural causes. Beneficiaries include the Metropolitan Museum of Art and the BM. But as the scale of the global opioid crisis became apparent, the actions of Purdue Pharma in the promotion of highly addictive prescription drugs came under scrutiny, leading to lawsuits and eventually the company's bankruptcy in 2019. What of all those buildings with the now-tarnished Sackler name carved over the entrance? Multiple institutions including the Louvre and the BM have moved to erase the association with their former corporate partner. Most recently, an Oxford University 'relationship review' has led to the renaming of multiple buildings, galleries and academic posts including the rebranding of the Sackler Library as the (somewhat less snappy) Bodleian Art, Archaeology and Ancient World Library. The review did conclude that "the Sackler name will be retained on the Clarendon Arch and on the Ashmolean Museum's donor board for the purposes of historical recording of donations to the University".¹⁰ But otherwise, a modern-day *damnatio memoriae* has seen the family's name disappear from the Oxford cityscape. Like an ancient *damnatio memoriae*, however, it can be hard to completely erase the disgraced's name or their likeness—there are always clues to the deletion. In years to come, perhaps digital archaeologists will trawl through old photographs on Google Street View and notice the Sackler name was once inscribed on the facade of the Bodleian Art, Archaeology and Ancient World Library.¹¹

Or will they? Are digital media as persistent as we often assume? A cyber-attack on the British Library last year suggests that digital preservation might not always be more reliable than parchment or paper. With the effects of the cyber-attack ongoing, it was no surprise that the UK government's announcement of plans to digitise and then dispose of millions of historical paper will prompted an outcry from archivists and genealogists.¹² Yet, at the same time, the

⁸ <https://www.theguardian.com/culture/2023/jun/02/british-museum-ends-bp-sponsorship-deal-after-27-years>
<https://www.theguardian.com/culture/2023/dec/19/british-museum-bp-sponsorship-deal-astonishingly-out-of-touch>

⁹ Documented in the winner of the 2021 Baillie Gifford Prize for Non-Fiction: Keefe, P.R. 2021. *Empire of pain: the secret history of the Sackler Dynasty*. London: Picador.

¹⁰ <https://www.bodleian.ox.ac.uk/about/media/university-oxford-relationship-sackler-family-statement>

¹¹ Aycock, J. 2021. The coming tsunami of digital artefacts. *Antiquity* 95: 1584–89. <https://doi.org/10.15184/aqy.2021.84>

¹² <https://www.theguardian.com/society/2023/dec/18/ministry-of-justice-plan-to-destroy-historical-wills-is-insane-say-experts>
and <https://www.bl.uk/home/british-library-cyber-incident-review-8-march-2024.pdf>

recent use of CT-scanning and AI to read part of one of the carbonised papyrus scrolls recovered in the eighteenth century from Roman Herculaneum is a reminder of how enduring such physical media can be. This particular technological breakthrough was achieved in response to the ‘Vesuvius Challenge’, a competition launched in 2023 by a university computer scientist backed by a group of Silicon Valley ‘tech bros’—philanthropy twenty-first-century style. Three students shared a \$700 000 (£554 000) prize for identifying more than 2000 Greek letters from a papyrus scroll, virtually unwrapping the CT images and using machine-learning algorithms to detect the ink letters. The text is revealed to be part of an Epicurean philosophical treatise discussing the sources of pleasure, including food and music, quite possibly penned by the owner of the library of which the scroll formed part, Philodemus.¹³ Since their discovery in the 1750s, scholars have deployed an ever-evolving variety of methods in their attempts to read the many scrolls. This latest development is a significant advance but it is jumping the gun to call, as some already have, for new excavations to locate further scrolls. Not least, there is the analysis of the remaining 95 per cent of this first scroll to be completed—and then several hundred other surviving scrolls to be read. Armed with new lab and field methods, the possibility of recovering further scrolls is tantalising—but any future archaeological investigation of the Villa of the Papyri must be driven by more than scroll-hunting on the off-chance of finding the missing books of Livy or Sappho’s poems.

Sitting dux

✂ The removal of the Sackler name from the buildings and galleries of cultural institutions might be seen in the wider context of recent debate about the commemoration of historical individuals. Prompted by the murder of George Floyd in 2020, protests in Europe, North America and beyond led to the toppling or subsequent removal of statues of individuals with links to colonialism and slavery. Four years on, statues remain a live issue. In just the past few months, for example, in Melbourne three statues of Captain Cook have been damaged, two of them sawn off at the ankles;¹⁴ and in Wichita, Kansas, a statue of Jackie Robinson, the first baseball player of colour to play Major League Baseball, was also cut off at the ankles, with fragments later found burned.¹⁵ In the UK, partly in response to the toppling of the statue of Bristol slave-trader Edward Colston in 2020, the government has recently issued guidance for ‘custodians for dealing with calls to remove commemorative heritage assets in their care’, advocating a ‘retain and explain’ policy. This involves leaving statues and the like *in situ* with the addition of “comprehensive explanation that allows the whole story of the person, building, or event to be told so that a fuller understanding of the historic context can be known and understood”.¹⁶ The guidance envisages only “rare and exceptional” circumstances in which heritage assets might be relocated. Not coincidentally, one of those exceptional cases appears to be Colston’s statue; following public

¹³ <https://www.nature.com/articles/d41586-024-00346-8>

¹⁴ <https://www.theguardian.com/australia-news/2024/feb/27/captain-cook-statue-toppled-melbourne-cooks-cottage-fitzyro-gardens>

¹⁵ <https://www.smithsonianmag.com/smart-news/stolen-jackie-robinson-found-burning-in-trash-can-180983721/>

¹⁶ <https://www.gov.uk/government/publications/guidance-for-custodians-on-how-to-deal-with-commemorative-heritage-assets-that-have-become-contested>

consultation, an explanatory plaque is to be added to the plinth on which the statue stood but the paint-daubed statue itself is now on display at the city's M Shed museum as part of an exhibition on the history of activism in Bristol.

If statues in some parts of the world are coming down, in other places they are being erected. Or rather, re-erected. In Italy in February alone, two colossal ancient figures reappeared in the landscape: an 8m-tall, fifth-century BC statue of Atlas at Agrigento in Sicily¹⁷ and an even larger statue in the heart of the Eternal City. The latter is a reconstruction based on marble fragments of a gigantic ancient Roman statue—a colossal head, an arm, a hand, a knee, etc—discovered in the fifteenth century. These marble body parts have been displayed for 500 years on the Capitoline hill, offering visitors to the city's political centre the opportunity to ponder both Rome's imperial might and its 'decline and fall'. Now, almost six centuries after they were discovered, the fragments have been used as the basis for a 1:1 scale reconstruction of the statue installed earlier this year on the Capitoline hill.

The original colossal marble fragments, housed in the courtyard of the Palazzo dei Conservatori, have long been recognised as components of an enormous statue. It likely took the form of an acrolith, combining white marble for the areas of bare flesh and metal or gilded stucco for the drapery, assembled around an internal structure, perhaps composed of brick, wood or metal. Based on iconographic sources, the statue can be reconstructed as a figure seated on a throne, holding an orb and a staff—a motif typically associated with the Roman god Jupiter; but since the nineteenth century, the statue's upturned eyes and bowl-cut hair have been associated with the emperor Constantine (r. AD 306–337). In fact, the statue could be both Jupiter and Constantine, for emperors regularly represented themselves as deities. Yet, in this particular case, the figure of Constantine might be a physical reworking of an earlier statue of Jupiter, possibly even the cult statue of Jupiter Optimus Maximus from the Capitoline temple, one of the city's oldest and most important religious structures. Sometime in the early third century AD, the temple and its cult statue were damaged by a fire during the reign of either Macrinus or, more likely, his successor Elagabalus—both, coincidentally, the subjects of formal *damnatio memoriae* by decree of the Roman senate (the former in order to demonstrate loyalty to the new emperor and the latter amid sexual scandal and religious controversy). Either way, the damaged statue may then have become available for reworking as a representation of Constantine.

The latest version of the statue was created by the Factum Foundation, a not-for-profit organisation specialising in the digital preservation of cultural heritage. The original fragments were 3D scanned and the missing parts digitally added using scans of a (much-smaller) statue of Claudius in the guise of Jupiter. The virtual colossus was then 'printed' to create a 13m-high statue made of resin, polyurethane and powdered marble and bronze, gilded with gold foil and the whole held together by an internal aluminium frame. Like the original, therefore, the replica is a composite object of multiple materials and components working to create the illusion of a single monumental whole. Funded by the Prada Foundation—more corporate philanthropy!—the statue first went on display in Milan in 2022, before being dismantled and reassembled earlier this year in the Villa Caffarelli garden.

¹⁷ <https://www.theguardian.com/culture/2024/feb/29/long-buried-atlas-statue-raised-to-guard-temple-of-zeus-in-sicily-once-more>




Figure 1. Reconstructed colossal statue of Constantine in the garden of the Villa Caffarelli on the Capitoline hill, Rome. Photograph © Sovrintendenza Capitolina.

Given current debate around the statues of historical figures, we might wonder: why a statue of Constantine? Why not, for example, a statue of Elagabalus? Presumably the latter's character is too tarnished by the writings of contemporaneous and later historians; unlike Richard III, there is no society dedicated to rehabilitating Elagabalus' reputation. Or perhaps the precise subject is secondary and the explanation lies in the enticing nature of the archaeological fragments—displayed for centuries like the remains of an autopsy of power—and a compulsion to reconstitute the whole. Surely there is some deeper significance to the enterprise than simply that the technology exists or because a corporate sponsor thought it would be good publicity?

Such questions about the intersection of heritage, identity and capitalist logic lie at the core of contemporary archaeology. This vibrant area of research continues to grow apace as archaeology works to reposition itself as a present- and future-orientated discipline. It is a topic that is well developed in the English-language scholarship, but it is far from a uniquely

Anglophone phenomenon. In this issue, Elias Michaut provides a critical assessment of modern and contemporary archaeology research in France and the Francophone tradition more broadly. As well as examining the parallel development of *archéologie moderne et contemporaine* in France and historical and contemporary archaeology in North America and the UK, the article reviews examples as diverse as the investigation of colonial plantations in the Caribbean, First World War landscapes of the Western Front and a twentieth-century film set near Paris. As the public, and the public institutions responsible for managing and funding the cultural heritage of recent periods, become more aware and accepting of contemporary archaeology, this promises to be an area of growth. The opportunities for a deeper interaction between the Anglophone and Francophone traditions, as well as those found in other countries, are also significant. By way of example, also in this issue, we feature a Project Gallery article (available online) on a contemporary archaeology project in northern Finland. Oula Seitsonen and colleagues present results of a project focused on Vaakunakylä, a Second World War German military camp that was converted into an unofficial suburb of the city of Oulu. A predominantly working-class neighbourhood, for 30 years the local community was physically, economically and politically at the margins of the rapid changes in post-war Finnish society. By the 1980s, however, the local government decided to evict the residents and clear the settlement, converting the land into a park. Recent plans to develop the area into a ‘des-res’ neighbourhood led to a revival of memories and interest in Vaakunakylä and the authors report both on their excavations and on how these investigations unexpectedly developed into an outlet for the former inhabitants’ sense of marginalisation.

Small things not forgotten

 Archaeological sites and finds are frequently featured on coins and postage stamps as a form of ‘visual nationalism’.¹⁸ From hominin skulls and stone tools to megaliths, minarets, pots and pyramids, nation states habitually reach for these iconic images to represent and reinforce national identities in miniature form. A new issue of stamps in the UK marks the 40th anniversary of the Jorvik Viking Centre in York and the wider history and legacy of the Vikings in Britain. Among the archaeological sites and objects featured are the Norse settlement at Jarlshof in Shetland, a brooch, a sword and an antler comb.¹⁹ One of the stamps also manages to satisfy both the philatelist and the numismatist with an image of a silver penny of Olaf Guthfrithsson minted in York (www.royalmail.com/vikingbritain).

The minting and circulation of silver coinage in north-western Europe began during the late seventh century, barely 100 years before the start of the Viking raids on Britain. The impact of this silver-based currency was transformational, helping to stimulate interregional trade and the development of *emporia*. But where did the silver come from? In this issue, Jane Kershaw and colleagues use combined lead isotope and trace element analysis of 49 coins from England, Frisia and Francia to identify the sources of early medieval silver used. Their results indicate that from the mid-seventh to the mid-eighth century, most coins

¹⁸ Brunn, S.D. (ed.) 2022. *Stamps, nationalism and political transition*. Abingdon: Routledge.

¹⁹ Muñoz-Rodríguez, M. *et al.* 2023. In the footsteps of Ohthere: biomolecular analysis of early Viking Age hair combs from Hedeby (Haithabu). *Antiquity* 97: 1233–48. <https://doi.org/10.15184/aqy.2023.118>



Figure 2. First-class stamp featuring a silver penny of Olaf Guthfrithsson minted in York, one of eight new stamps issued in February 2024 to mark the Viking legacy in Britain. Image © Royal Mail.

were made from recycled Byzantine silver plate; then, from the mid-eighth century, there was a rapid and widespread shift to the use of silver that was newly extracted from mines at Melle in Aquitaine (pollution from which has been detected in Alpine ice).²⁰ This centralised supply of silver, combined with the standardisation of coin size and weight, emphasises the political and economic control of the Carolingian state in extending its sphere of influence across north-west Europe—was the penny mightier than the sword?

Among the other articles in this issue, we feature reassessments of the chronologies of giant handaxes in Britain and of Geometric pottery in Greece. There are also no fewer than four contributions on aspects of personal ornaments from funerary contexts, ranging from labrets and body piercings in early Neolithic Türkiye and shell beads in Bronze Age Thailand to necklaces and arm ornaments in Iron Age Poland (see cover, this issue) and an open-source database of all manner of prehistoric beads and amulets from Europe and South-west Asia. Meanwhile, the reviews section includes evaluations of books on the archaeology of Afro-American slavery in the southern US, archaeological fieldwork for veteran wellbeing and Sarah Tarlow's powerful memoir reflecting on archaeology and bereavement. As ever, we hope there is something of interest for all!

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Durham, 1 April 2024

²⁰ Loveluck, C.P. *et al.* 2018. Alpine ice-core evidence for the transformation of the European monetary system, AD 640–670. *Antiquity* 92: 1571–85. <https://doi.org/10.15184/aqy.2018.110>