



UNIVERSITY OF LEEDS

This is a repository copy of *An Elusive Legacy: The Rediscovery of Roman Baths in Eighteenth-Century Britain*.

White Rose Research Online URL for this paper:
<http://eprints.whiterose.ac.uk/140325/>

Version: Accepted Version

Article:

Savani, G orcid.org/0000-0002-8076-9535 (2019) *An Elusive Legacy: The Rediscovery of Roman Baths in Eighteenth-Century Britain*. *Britannia*, 50. pp. 13-48. ISSN 0068-113X

<https://doi.org/10.1017/S0068113X19000023>

© The Author(s) 2019. Published by The Society for the Promotion of Roman Studies. This article has been published in a revised form in *Britannia* <https://doi.org/10.1017/S0068113X19000023>. This version is free to view and download for private research and study only. Not for re-distribution, re-sale or use in derivative works.

Reuse

Items deposited in White Rose Research Online are protected by copyright, with all rights reserved unless indicated otherwise. They may be downloaded and/or printed for private study, or other acts as permitted by national copyright laws. The publisher or other rights holders may allow further reproduction and re-use of the full text version. This is indicated by the licence information on the White Rose Research Online record for the item.

Takedown

If you consider content in White Rose Research Online to be in breach of UK law, please notify us by emailing eprints@whiterose.ac.uk including the URL of the record and the reason for the withdrawal request.



eprints@whiterose.ac.uk
<https://eprints.whiterose.ac.uk/>

An Elusive Legacy: The Rediscovery of Roman Baths in Eighteenth-Century Britain

By GIACOMO SAVANI

ABSTRACT

In this paper, I investigate how eighteenth-century antiquarians engaged with the remains of Roman bath buildings in Britain and discuss their multifaceted attitude towards the ancient practice of bathing, with a focus on the city of Bath. I also examine the interests and priorities of Georgian scholars in studying Roman baths and their structure, highlighting their sometimes uncritical use of classical sources and tracking the origins of their misconceptions regarding the components and function of these facilities. Finally, I briefly address the elusive socio-cultural legacy of Roman baths and bathing in eighteenth-century Britain, stressing influences and differences in practice and architecture.

Keywords: Romano-British baths; antiquarianism; early archaeological illustrations; eighteenth-century Britain.

INTRODUCTION

Taste, social status, ideology, and political agendas have all had a profound impact on the way different historical periods have looked at the classical world;¹ eighteenth-century Britain is no exception. Since the official establishment of the Society of Antiquaries of London in 1718, a time when the study of British past was perceived as ‘a means of consolidating political stability’ after the turbulence of the Hanoverian succession,² the study of Roman antiquities in Britain underwent several shifts in aims and focus. Some of these trends have been reviewed in detail, such as the adoption of Roman ideals in eighteenth-century English culture.³ Rosemary Sweet’s excellent overview of the achievements of eighteenth-century antiquarians has a substantial section dedicated to the study of Roman Britain,⁴ while Richard Hingley has investigated the legacy of these early Romanists in terms of research priorities and theoretical frameworks, with a focus on the problematic Romanisation paradigm.⁵ At the same time, figures of particular relevance for the history of Romano-British archaeology such as William Stukeley⁶ and Samuel Lysons⁷ have also attracted scholarly interest.

However, while attention has been paid to the influence of classical art and architecture⁸ and to the changing perceptions of Romano-British antiquities during this period,⁹ very little has been written so far about the attitude that Georgian antiquarians had towards one of the most distinct and widespread types of Roman buildings, i.e. public, military, and private baths. Similarly, the possible connections between ancient facilities and eighteenth-century baths and bathing have been so far neglected. The aim of this paper is therefore to address some of these under-studied aspects of the complex interactions between eighteenth-century antiquarians and the Roman past. The city of Bath, where the rediscovery of Roman antiquities coincided with the acme of Georgian urban redevelopment, is the ideal starting point for this investigation. Drawing on contemporary reports of excavations, I shall examine how antiquarians engaged with the remains of bath buildings in Britain more broadly, highlighting their sometimes uncritical use of classical sources and tracking the origins of their misconceptions regarding the components and functioning of these facilities. Finally, this overview will allow me to trace the elusive legacies of Roman baths in eighteenth-century Britain, stressing influences and differences in practice and architecture.

AN AMBIGUOUS HERITAGE

During the eighteenth century, when Roman civic ideals were widely adopted by the British aristocracy, the ‘rediscovery’ of Roman Britain was seen as a crucial step in the process of restoring Roman virtues.¹⁰ Towns with Roman origins were celebrated for their glorious past, and antiquarians across the country were keen to increase the prestige of their rural communities through the discovery of Roman antiquities.¹¹ Major foci of antiquarian investigation during this period were the road system created by Rome in Britain and the remains of her military presence.¹² On the other hand, particularly during the first half of the century, evidence of civilian activities was rarely considered and usually misinterpreted, as in the case of domestic mosaic floors erroneously associated with military camps at Stonesfield (Oxon)¹³ and Wellow (Somerset).¹⁴ Furthermore, the relationship between eighteenth-century scholars and Romano-British antiquities was an ambiguous one. While the latter was seen as tangible evidence of the illustrious past of the country within the Roman Empire, their ‘lower’ quality in comparison with continental remains¹⁵ made them less appealing and worthy of investigation.¹⁶ Roman Bath is emblematic in this sense, since the baths and hypocausts unearthed there in 1755 during the demolition of a house (the Abbey House) were barely commented upon by the antiquarian world¹⁷ and a contemporary German visitor described them as ‘built of bricks, without any great art or science’.¹⁸

At a local level, however, the impact of these discoveries was far more significant. *The New Bath Guide*¹⁹ gives an enthusiastic description of these structures: it reports that ‘a very valuable Piece of Antiquity’ had been discovered, including the ‘Remains of very noble Roman Baths and Sudatories, constructed upon their elegant Plans, with Floors suspended upon square Brick Pillars, and surrounded with tabulated Bricks, for the equal Conveyance of Heat and Vigour (...)’. In line with the prevalent military-style interpretation of Romano-British archaeology at the time, the author identifies the site as a station and praises the ‘Roman Soldiery’ that ‘entertained higher Ideas of the Conveniency, Elegance, and Use of Baths than the settled and opulent Inhabitants of Great-Britain ever proposed to themselves’.²⁰ After the discovery, the Duke of Kingston, the owner of the land, had the springs that supplied these ancient facilities ‘cleared from the Rubbish’ and ‘the several ancient Sewers for carrying the Water from the Baths repaired’.²¹ He then ‘built on the same Spot several Baths and Sudatories upon an entire new Plan, which will be a great Advantage for the Public’.²² Seven structures, the Kingston Baths, were designed by Thomas Jelly, a local builder, and erected in this area during 1763–66. They were demolished a decade or so later, when the great Roman Bath was exposed.²³ Since no contemporary representation of them seems to have survived, very little can be said about their appearance. However, at least in the eyes of the author of the *Guide*, Kingston’s investment was intended to create some form of continuity with the Roman past.

At the time of these discoveries, Bath was changing quickly, forced to renovate itself to keep pace with the new spa establishments appearing all over the country and with the expectations of the growing clientele.²⁴ The impact that these interventions had on the archaeology of the city and on the study of its Roman past will be briefly discussed in the next section, with an emphasis on the role played by John Wood the Elder (1704–1754), and his son John Wood the Younger (1728–1782), two of the most influential figures in the construction of the Georgian city.

ARCHITECTS AND ANTIQUARIANS

Wood the Elder started working in Bath in 1727 when he was only 23, completing the rebuilding of St John’s Hospital initiated by William Killigrew in 1716.²⁵ In his later work *An Essay Towards a Description of Bath*,²⁶ he claims that already in 1725 he had begun to turn his ‘Thoughts towards an Improvement of the City by Building’.²⁷ His design was majestic in intent: he wanted to create a replica of a Roman city, with ‘a grand Place of Assembly, to be called the *Royal Forum of Bath*’, a Grand Circus and a Gymnasium, ‘from a Work of that

Kind, taking its Rise at first in *Bath*, during the Time of the *Roman* Emperors'.²⁸ While Wood appeared keen to revive classical architecture, his relationship with the Roman past of the city was ambiguous. According to his fanciful historical reconstruction, inspired by Geoffrey of Monmouth's *Historia Regum Britanniae*,²⁹ the British king Bladud had founded Bath and discovered its hot springs centuries before the arrival of the legions.³⁰ Consequently, the Romans are unflatteringly portrayed as the destroyers of the splendid 'Metropolitan Seat of the *British Druids*' built by Bladud and his descendants, and adorned with 'Sacred Edifices (...) composed of Marble, even when the *Romans* themselves had aspired no higher, in their Works of Architecture, than to build their Temples with common Clay'.³¹ Wood might have had a negative opinion of the Romans and their deeds but the influence of their architecture on his work, filtered by Palladian classicism, is undeniable and his keen interest for the classical antiquities of Bath emerges in another passage of his *Essay*. In 1738, while supervising the construction of the Mineral Water Hospital, Wood watched and recorded the unearthing of what he believed to be the 'Vestigia of Part of the Praetorium'³² of a Roman military camp, subsequently identified as the remains of a house of late Roman date.³³ His account includes a plan and a detailed description of the Roman features, consisting of a hypocaust, walls, and mosaics.³⁴

During the same year, the Bath Corporation entrusted him with the renovation of the King's and Queen's Baths. Although his design was 'perused and highly approved by several eminent Physicians', a 'Dissention soon arose in the Corporation, which put a Final end to this Scheme'.³⁵ That Wood's project might have been in some way inspired by Roman thermal architecture remains a matter of conjecture. It certainly included some elements reminiscent of classical buildings such as 'a Porticoe (...) for Shelter to the Bathers' and four slips (small and more private baths) 'with dressing Rooms and Anti-Chambers'³⁶ to be added to the King's Bath.

Wood the Elder died on 23 May 1754 and did not have the chance to admire the Roman baths discovered under Abbey House in the summer of 1755.³⁷ His son John Wood the Younger helped Charles Lucas (1713–1771) to record the remains and drew the first plan of the site, published in Lucas' *An Essay on Waters*³⁸ (FIG. 1). Lucas is better known as a politician than an antiquarian, and the political subtext of this book has been recently addressed.³⁹ Despite this, his account of the Roman buildings is exceptionally detailed and provides meticulous measurements of the rooms uncovered.⁴⁰ These included: a large room (ABCD in Wood's plan) with a rectangular pool in its centre (EFGH), now known as the

Lucas Bath⁴¹; a square room (IKNM) with an apsidal plunge-bath on its northern side (LMN), which, according to Lucas, ‘has suffered some alteration since it’s [*sic*] building’; a ‘vestibule’ (O), the southern wall of which does not appear in any of Cunliffe’s plans;⁴² two large hypocausted rooms (QQ and RR) and their furnace (u, t); and two ‘semicircular chambers’ with mosaic floors (U and T).⁴³ Two other rooms (unnumbered) were only partially revealed north of the furnace and identified as ‘part of the habitations or lodges of the keepers or attendants of the baths’.⁴⁴ Lucas, perhaps influenced by contemporary expectations, interpreted the rectangular pool in room ABCD as ‘the plebeans, or soldier’s bath’ and the apsidal bath (LMN) as ‘originally (...) designed for the patricians or nobles’.⁴⁵ He then discusses at length the functioning of the ‘Hypocausta, Laconica or stoves’ in rooms QQ and RR, detailing their different components and providing an accurate description of the ‘strong square brick tubes’, the box flue-tiles that ‘communicate with the hollow between the double floors’.⁴⁶ A beautiful ‘perspective view’ of the hypocaust is given in Plate II, Figure V, probably also drawn by Wood. The latter did not just help in measuring the remains but actively participated in their interpretation, ‘point[ing] out doors or opens, where probably they should have been, but actually were not to be seen’.⁴⁷

‘THE HYPOCAUSTA OF THE ANCIENTS’

A paper presented to the Society of Antiquarians by William Stukeley (1687–1765) in 1761⁴⁸ is certainly one of the earliest contributions specifically dedicated to the study of baths in Roman Britain, with a focus on the remains recently recovered at Bath. The fact that it was never published, however, is suggestive of the tepid response of his colleagues to this matter.⁴⁹ Stukeley was a prominent figure in the antiquarian world of the first half of the century, among the founders of the Society of Antiquaries in 1718 and promoter of the Roman Knights (1722–26), a short-lived association of gentlemen and, extraordinarily for the period, ladies devoted to the study of Roman Britain.⁵⁰ When offering his paper in 1761, Stukeley was in his seventies and had already published a series of contributions on the most diverse subjects⁵¹, including his well-known account of Stonehenge⁵² and the *Itinerarium curiosum*,⁵³ a guide for ‘a classic journey on this side the streights of Dover’.⁵⁴ His first-hand examination of the archaeological evidence from Bath, Lincoln, and Caerleon, together with a meticulous knowledge of the ancient sources,⁵⁵ informed Stukeley’s discussion of baths. In particular, he was keen to stress the healing effects of bathing and to celebrate the ‘incomparable invention’ of the hypocaust.⁵⁶

Stukeley had already praised the hypocaust in his *Itinerarium* ('an excellent invention for heating a room' that 'might well be introduced among us in winter time')⁵⁷ and the ancient habit of 'daily bathing and oyling' in his treaty *Of the Gout*.⁵⁸ He presented it as a healthy routine popular also in Roman Britain, as testified by 'the innumerable remains of hypocausts in our island', but regrettably not reintroduced 'among all the refin'd politeness of our age'.⁵⁹ In the latter work, he then gives an extremely detailed account of the method used by the Romans to build a hypocaust—although according to his reconstruction the floor heating system was formed by *tubuli* (or box flue-tiles) jointed together⁶⁰ (FIG. 2). One wonders about the impact that this misleading, if ingenious reconstruction, had on subsequent scholarship and the 1761 paper suggests that it was still widely accepted at the time. This is surprising, since, in 1717, the physician John Tabor of Lewis rightly identified the function of some box flue-tiles from a Roman bath-house discovered in 1712 at Eastbourne in East Sussex. In his report, published in the *Philosophical Transaction of the Royal Society*, he states that '(...) they were placed in the Walls to distribute Heat throughout the Building, as was usual in the ancient Structures at Rome'.⁶¹ To understand the reasons behind this seeming incongruity, we will now look in more detail at the archaeological discoveries that underpinned Stukeley's interpretation.

Wood's plan of the baths unearthed in 1755, partially adapted by Lucas (FIG. 1), is among the earliest measured drawings of a bath-house in Britain. Looking at six previous and contemporary examples, considerable variability in the detail of archaeological drawing and recording at this time is evident. The earliest of these illustrations accompanied the brief 'Description of a Roman Sudatory, or Hypocaustum, found at Wroxeter in Shropshire' by John Lyster⁶² (FIG. 3), located *c.* 200m north of the Old Work.⁶³ Following the contemporary military-oriented trend in the study of the Roman past of Britain, Lyster saw this structure as 'a Sudatory or Sweating house for Roman Soldiers'.⁶⁴ His paper is extremely concise and he claims that '[t]he Form of the whole will be better understood by inspecting the Figures'. The latter are indeed quite detailed and include a scale in feet. We see 'the Sweating-House, in Perspective' together with the ground plans of the three 'layers' of the hypocaust: 'the Ground Plat, on which the Pillars of Brick stand' (Fig. 1), 'the Ceiling of Square Tiles' (Fig. 3), and the 'double Floor' (Fig. 5). Figure 6 is an accurate depiction of one of the box flue-tiles that were 'fixt with Iron cramps up to the Wall' of the hypocaust. These are called 'Flews' or 'Tunnel-Bricks' in the text and the author seems to be confident about their function: 'every Tunnel had alike 2 opposite Mortice-holes, one on either side, cut through

for a cross passage to disperse the Heat amongst them all'.⁶⁵ Apparently, a model of this building was kept in the Museum of the Royal Society, at least until 1738.⁶⁶

Lyster's paper was followed by a letter from John Harwood to Hans Sloane, Secretary of the Royal Society, 'concerning the Forementioned Hypocaustum', and by passages of two letters from William Baxter to Harwood himself, 'Relating to Wroxeter, and the Hypocausta of the Ancients'.⁶⁷ In his letter, Harwood usefully lists four hypocausts comparable to the one just unearthed. He was informed about the first one by the famous architect Christopher Wren, 'the justly-admir'd Vitruvius of our Age and Nation', who discovered it when 'laying the Foundation of the Kings House at Winchester'.⁶⁸ The second one, found near 'a Field called the Bower, (...) half way between the Roman Wall and South Tine' (Tyne and Wear), was briefly described by Christopher Hunter in a letter published in the *Philosophical Transactions* a few years earlier.⁶⁹ The third and fourth sites are both in Wales (Kaer hên, now Caerhûn, Caerns., and Hope, Flintshire) and were mentioned in the English edition of Camden's *Britannia*⁷⁰ by Edward Lhuyd⁷¹ and Camden himself.⁷² William Baxter was a Welsh antiquarian, author of a *Glossarium Antiquitatum Britannicarum* (1719), and his letter 'concerning the Hypocausta of the Ancients' sheds some light on contemporary understanding of these features:

The Ancients had two sorts of *Hypocausta*; the one called by *Cicero* [*Q. Fr.* 3.1.2], *Vaporarium*, and by others, *Laconicum*, or *Sudatio*, which was a large Sweating Bath. In which were *Tria vasaria athena*, called *Caldarium*, *Tepidarium*, and *Frigidarium*, from the Water contained in them [*Vitr.* 5.10.1]. The other sort of *Hypocaustum* is not so distinctly handled by Antiquaries, and it was a sort of a *Fornax*, or Kill [*sic*] to heat their Winter Parlours, or *Cœnatiunculæ Hybernæ*. (...) The Terrace Floor is called by Vitruvius [5.10.1], *Testudo*. *Testudines Alveorum in Hypocausti calefacientur*, saith the same Author [*ibid.*]. This *Hypocaustis* was called *Alveus*, and *Fornax*: And the Man that tended the Fire *Fornacator*. The *Tubuli* seems to have been contrived to convey away the smother, that otherwise would choke the *Fornacator*. This kind of Stove seems to be graphically described by *P. Statius* [*Silv.* 1.5] in *Balneo Hetrusci*.⁷³

The already mentioned account by John Tabor reporting the discoveries at Eastbourne in East Sussex, identified by the author as the 'Apartment of a magnificent Palace',⁷⁴ was also accompanied by a plate (FIG. 4). The sketch, possibly made by Tabor himself, shows a mosaic floor and a plunge-bath entered via three steps. Neither a scale nor north arrow are provided but the author gives detailed measurements of the structures in the main text.⁷⁵ The two features marked as 'Fig. 2' and 'Fig. 3' in the plate are particularly significant since they are among the earliest depictions of relief-patterned box tiles.⁷⁶ Tabor identifies two types of box flue-tiles: 'the one like a Trough (...)', while the other 'had a

Cylindrical Channel; so that when two were clapt together, they form'd a hollow Cylinder of three Inches [*c.* 7.6cm] Diameter'.⁷⁷

An annotated drawing made by Bernard Lens III (1682–1740) on 20th August 1727⁷⁸ (FIG. 5), depicts 'the subterranean antient Stoves' discovered in July 1727 during the laying of a sewer near the junction between Bath Street and Stall Street in Bath, the first discovery of similar features in the city. In the sketch we see a floor of box-tiles covered by a course of horizontal tiles. This arrangement is comparable to the suspended floor over pillared hypocaust of the *tepidarium* west of the Circular Bath in the West Baths.⁷⁹ As we will see, a similar solution was also adopted in at least one of the two apsidal rooms of what Cunliffe has identified as the Period 4 and 5 *calidarium* of the eastern range of heated baths of the complex.⁸⁰

The fourth example, dating to 1740, is a beautiful watercolour by George Vertue (1684–1756), at the time official engraver of the Society of Antiquaries,⁸¹ entitled *Excavations of a Hypocaust at Lincoln*⁸² (FIG. 6). The building was found the year before during the digging of a cellar at the Precentory (west of Lincoln Cathedral) and accurately recorded by Thomas Sympson, Clerk of the Fabric. The latter sent an account of the discovery to Browne Willis, a member of the Society of Antiquaries, and his letter was subsequently published in the *Philosophical Transactions*.⁸³ The figures that accompanied this publication⁸⁴ were based on Sympson's sketches. Vertue later redrew the hypocaust in perspective and engraved it for members.⁸⁵ The engraving, with a legend in Latin, was published in the *Vetusta Monumenta*.⁸⁶ These detailed drawings are exceptional in showing the remains in their original context. Furthermore, they give us hints about the 'techniques of excavation' and tools used at the time, including shovels, picks, and a hoist to lift buckets of soil. From the legend at the bottom of the plate, we are informed that after the ancient structure was located, a second hole was open 'ad accuratiorem hypocausti explorationem'.⁸⁷ 'to explore in greater detail the hypocaust'. This seems to imply some sort of planning to determine the size of the building.

While presented as 'the remains of a Roman Hypocaustum or Sweating-Room' in the title of Sympson's paper⁸⁸, it is not certain that this room was indeed part of a bath-suite. However, the fact that two flues (D and E in Vertue's drawing) 'for carrying off the Smoke' were found passing 'under another Room by the Side of the Hypocaustum' where 'it is presumed they turn upwards'⁸⁹ suggests a set of heated rooms,⁹⁰ possibly the private baths of

a town house. These flues, made of tiles or, more likely, slabs of stone,⁹¹ are called ‘*Tubuli*’ in the text;⁹² clearly, at this time the term was not exclusively used to identify box flue-tiles and the antiquarians’ Latin terminology was still shifting and inconsistent. Other examples are the words ‘*Alveus*’ to indicate ‘the Body of the Kiln’⁹³ and ‘*Testudo* or Floor of the *Sudatorium* or Sweating-Room’.⁹⁴ Thanks to the already mentioned letter by Baxter published a few years before,⁹⁵ we know that the use of these terms originated from the misunderstanding of a particularly problematic passage of Vitruvius:

Aenea supra hypocaustum tria sunt componenda, unum caldarium, alterum tepidarium, tertium frigidarium, et ita conlocanda, uti, ex tepidario in caldarium quantum aquae caldae exierit, influat de frigidario in tepidarium ad eundem modum, testudinesque alveolorum ex communi hypocausti calfaciantur.⁹⁶

The author is discussing how to build the hot-water system of a set of baths. What is not immediately clear is that Vitruvius was here describing two separate structures operating from the same furnace: (i) a set of three tanks associated with boilers; and (ii) the *testudines alveolorum*, a device that helped to heat the water and to keep it warm.⁹⁷ The fact that in his work Vitruvius employed the word *testudo* to indicate both a ‘vault’ or an ‘aisle’⁹⁸ and two distinct military devices⁹⁹ seems to have generated some confusion among British antiquarians. The more common attestation of *testudo* as ‘vault’ in other ancient sources¹⁰⁰ led them to interpret the *testudines alveolorum* as the ‘vaults of the cavities’, i.e. the hanging floor over the hypocaust itself.

Another ‘Hypocaust or Sudatory’ was discovered *c.* 274m south-west of the Roman fort at Benwell (*Condercum*) in *c.* 1751. These military baths were drawn ‘by its late very respectable owner, Robert Shafto, Esq. about the time when the military road leading to Carlisle was made’¹⁰¹ (FIG. 7). The drawing’s annotations are quite detailed and give an accurate description of the different types of stone *pilae* used in each room as well as of the *opus signinum* floor that covered the hypocausts. This was ‘a Composition of various hard ingredients about 18 inches thick’, including ‘small pieces of brick and blue & red Pots mixed up with run Lime’. According to Shafto, ‘many square Bricks with holes in the Middle’ (number 3 on FIG. 7) were found in one of the rooms. He claims that these curious features ‘were probably joined together by way of pipes to conduct the Water from the Top of the Hill’.¹⁰² While Shafto’s interpretation seems unlikely, the author showed here an unusual interest in the water supply of the site, a factor ignored in most excavations of bath complexes during the eighteenth and nineteenth centuries.

Returning to Bath, Wood's plan and 'perspective view' of the baths unearthed there in 1755 (FIG. 1) is not the only contemporary illustration of the site. Soon after the discovery, the famous Bath artist William Hoare (c. 1707–1792) realised a watercolour detailing the remains, now in the Manuscript Collections of the British Library¹⁰³ (FIG. 8). The plate is subdivided into four sections. The upper section frames a meticulous bird's-eye view of the site, seemingly in the immediate aftermath of the excavation. The plan in the central section is clearly based on Wood's work, but it is more accurate and shows areas that Wood indicated as unexcavated. In the lower section, we see two vignettes (C and B) labelled 'Construction of the Sudatory' and 'The manner of suspending the Floor'. The former is particularly significant. It depicts the heating system of the western apsidal room to the north of what Cunliffe describes as the Period 4 and 5 *calidarium* of this set of baths.¹⁰⁴ We see brick *pilae* covered by courses of horizontal tiles, on top of which there is a course of box flue-tiles (placed horizontally, at some distance from one another), covered by other tiles and a second course of box flue-tiles (this time placed one next to the other). Cunliffe, while certainly aware of Hoare's sketch, does not discuss this arrangement in any detail, which is similar to the one identified by him in the *tepidarium* west of the Circular Bath in the West Baths¹⁰⁵ and to the one discovered in 1727 near the junction between Bath Street and Stall Street (FIG. 5). Its importance should not be underestimated: these are among the very few Romano-British buildings in which this solution has been recorded.¹⁰⁶ Even more relevant for this paper, the arrangement depicted by Lens apparently led Stukeley to believe that this was how box flue-tiles were normally used: in his reconstruction (FIG. 2) we see a course of horizontal tiles covering an intricate pattern of *tubuli* jointed together. The same combination of tiles over *tubuli* appears in Lens' drawing. The fact that an analogous arrangement was found in the hypocaust under Abbey House in 1755 must have convinced Stukeley of the accuracy of his reconstruction.

As I shall demonstrate in the next section, some of the other misconceptions that have emerged from these accounts of British antiquarians were based on a far more deeply-rooted and prestigious tradition.

A MISLEADING SOURCE

In 1772, the Scottish architect Charles Cameron (c. 1745–1812) published *The Baths of the Romans Explained and Illustrated*,¹⁰⁷ one of the first compendia of this kind available in English. As the author states in the introduction,¹⁰⁸ this was based on Palladio's unfinished work on the baths of Rome, published in 1730 by Lord Burlington (1694–1753).¹⁰⁹

Considering the incomplete and ‘imperfect form’ of Palladio’s material, Cameron claimed that ‘the buildings [Palladio] has described have been again measured; and the errors which have escaped him, corrected’.¹¹⁰ For the purpose of this paper, the most interesting section of this volume is the one dedicated to the ‘Apartments Belonging to the Baths’¹¹¹ and, in particular, the discussion about the hot-water system and the hypocaust. Cameron, paraphrasing Vitruvius,¹¹² says that:

The manner in which they heated the water for the Baths (...) was by three copper vessels, so placed that the water ran out of one into the other, and out of the lowest into the Labrum of the Baths, which had also flows from the Hypocaustum to preserve the water in a bathing heat. The particular positions of the vessels alluded to by Vitruvius, had been nearly ascertained by an antique painting found in the Baths of Titus.¹¹³

A reproduction of this painting is then given at the beginning of the following chapter.¹¹⁴ This is an extremely fascinating image, representing a cutaway view of a set of baths. It appeared in many eighteenth- and nineteenth-century books, from de Montfaucon’s influential *L’Antiquité Expliquée et Représentée en Figures*¹¹⁵ to the *Penny Cyclopædia*.¹¹⁶ The image is firstly presented as based on an ancient wall painting in Domenico de’ Rossi’s and Paolo Alessandro Maffei’s *Raccolta di Statue Antiche e Moderne*, published in 1704 (FIG. 9). After the meticulous description of several classical statues, the two authors inserted the section ‘Sposizioni del frontespizio e degli altri ornamenti della presente opera’ (‘Discourses over the frontispiece and the other ornaments of this volume’). Among these, they included ‘(...) a wall-painting of the well-known Baths of Titus, from the books of drawings of the famous *Museo Cartaceo* of the Commendatore Cassiano dal Pozzo’.¹¹⁷

The *Museo Cartaceo*, a collection of more than 7,000 watercolours, drawings and prints, most of which are now in the British Library and the Royal Library at Windsor Castle, is currently being catalogued and published thanks to a project of the Warburg Institute, London. Our painting is not included in the first volume of Series A of the catalogue raisonné (Antiquities and Architecture) dedicated to ancient mosaics and wall paintings¹¹⁸ nor in the three volumes dedicated to ancient Roman topography and architecture.¹¹⁹ Amanda Claridge,¹²⁰ general editor of the project, has confirmed that it is not part of the known dal Pozzo corpus. A possibility is that the original drawing or print was lost after the dispersion of the collection in the mid-eighteenth century.¹²¹ The drawing was realised in the mid-sixteenth century by the architect Giovanni Antonio Rusconi (c. 1500–1578) to illustrate the contribution of the physician Giovanni Antonio Sicco to Tommaso Giunti’s *De balneis*,¹²² an anthology of essays on balneology.¹²³ However, no mention of it being an ancient wall

painting is made in the text, implying that this misleading label has been fabricated at some point between 1553 and the publishing of the *Raccolta di Statue Antiche e Moderne* in 1704.

The major issue with this image emerges looking once again at Vitruvius' recommendations for the construction of a hot-water system.¹²⁴ As seen in the previous section,¹²⁵ modern translations of this passage use the words 'bronze tanks' to render the Latin *aenea*. The main meaning of *aeneum*, however, is 'bronze or copper vase' or 'cauldron', and it was interpreted as such in the Renaissance. When Fra Giocondo¹²⁶ (FIG. 10) depicted these *aenea* in the first richly illustrated edition of Vitruvius' work,¹²⁷ he followed the text literally and drew three vases of bronze, with the water flowing from one into the other.¹²⁸ This erroneous reconstruction clearly influenced Giovanni Antonio Rusconi's illustration. When in the eighteenth century the latter started to be seen as an 'antique painting', its authority was used to confirm the validity of Fra Giocondo's interpretation,¹²⁹ fuelling a vicious circle that has affected the understanding of this arrangement for centuries.

NEW DISCOVERIES, OLD DISPUTES

This controversial depiction was certainly known to British antiquarians and John Lyon,¹³⁰ in his account of the discovery of a set of baths at Dover, reports de Montfaucon's opinion that '[n]othing (...) better expresses the form of the great baths of the Romans, than a piece of painting in the Thermae of Titus'. His definition of a hypocaust was also affected by this misleading source, since it seems to imply that the fire was burning under the floor itself, as represented in the painting:

This was a subterranean furnace, where the fire was made to warm the room above, and likewise to heat the water for the hot baths to any degree of heat they pleased. This place was curiously and advantageously contrived to diffuse a general and equal heat in every part of the Sudatorium.¹³¹

Moreover, terminological disputes seem to have been all but settled at this time. A few pages later, the same author discusses the meaning of the word '*laconicum*' in Vitruvius:

Some say the Lyconycum [*sic*] is a separate apartment, others that it was the same with the Tepidarium. Was I to offer a conjecture it should be that the Lyconicum [*sic*] was a furnace under the Tepidarium, as the Hypocaustum was under the Sudatorium, for the funnel bricks fixed in the angle [of the *tepidarium* of the bath-building at Dover] (...) show there was heat conveyed either in the walls, or under the floor of the Tepidarium.¹³²

Despite these erroneous preconceptions and controversies, in the second half of the eighteenth century, descriptions of hypocausts and baths had generally become more accurate and the antiquarian terminology more consistent. Furthermore, during this period scholars started to question the military interpretation traditionally associated with the Roman heritage in Britain. New typologies of civilian sites were now acknowledged, including villas, even if some of these had been correctly identified already in the late seventeenth century.¹³³ Stukeley and Roger Gale (1672–1744) were involved in the study of at least three villas during the 1730s, including Great Weldon (Northants.), which was extensively excavated.¹³⁴ Yet, no bath-suites were found there and, if we exclude the plunge-bath uncovered at Eastbourne in East Sussex in 1712, the first villa baths recognised as such were probably those recorded in 1747 at Hovingham in North Yorkshire.¹³⁵ The site is briefly discussed in a letter from Francis Drake (1696–1771), author of the influential *Eboracum*,¹³⁶ to William Stukeley¹³⁷. An etching by George Vertue (FIG. 11) depicting the plan of the bath-house and a mosaic floor found nearby provides more detail. This was based on the drawing of a certain Charles Mitley and ‘transmitted to Posterity by the Encouragement of the Right Hon.^{ble} Richard Earl of Burlington’.¹³⁸ In the notes accompanying the etching, Drake states:

The Great Remains of Buildings which have been dug up for several Years (...) by the present Proprietor [Thomas Worsley] and his Father, are plain Evidences of a Roman VILLA or country Seat here placed, belonging (perhaps) to some chief Officer of their sixth Legion, for some centuries stationed at York and in these Northern Parts.

This interpretation nicely explains the discovery of a civilian residence in the ‘Northern Parts’, almost exclusively associated with the army in the minds of contemporary scholars. Based on the few coins recovered at the site, ranging from Antoninus Pius to Constantine, Drake also argues that ‘this Place was early and long inhabited by these People’ and that the structures unearthed ‘exhibite a Taste much superior to any thing of those kinds in the lower Empire’. The object marked with the letter K in the plate is described as a ‘Hollow Brick (...) for conveyance of hot Air into the Sweating Rooms, as may be seen round the Circular VAPORARIUM’. This item has a very peculiar shape and has been identified as D-shaped half box tile,¹³⁹ apparently a unicum in Roman Britain.¹⁴⁰

One of the earliest full-scale excavations and recordings of a villa complex and its baths took place in 1786 at Mansfield Woodhouse (Notts), under the direction of Hayman Rooke.¹⁴¹ Two residential buildings were located (FIG. 12), and the excavator, following Columella¹⁴² and other ancient authors, interpreted the eastern structure as a *villa urbana* and

the western one as a *villa rustica*.¹⁴³ Both these houses were equipped with hypocausts and Rooke¹⁴⁴ demonstrated an exceptional insight in his analysis, correctly claiming that only the one in the south-east corner of the western building was part of a set of baths, while the others were used to heat residential rooms.

The standards for plans and drawings also improved during the last decades of the century. The members of the Society of Antiquarians had always recognised the importance of visual records of antiquities and the significant number of illustrations that were published in the Society's journal *Archaeologia* since its first volume in 1770 is suggestive in this sense. Their quality increased even further during the 1780s, when professional draughtsmen started to be employed by the Society.¹⁴⁵ The bath-house excavated in 1783 at Maesderwen (Brecknock)¹⁴⁶ was part of a villa complex, although this was not recognised at the time. It was carefully surveyed and the plan, 'Measured and Drawn upon the Spot' by Charles Hay,¹⁴⁷ is remarkably detailed (FIG. 13). The same can be said of the plan of the two residences forming the already mentioned villa at Mansfield Woodhouse (Notts), that 'was found to be extremely accurate' when the site was re-examined in 1936–9.¹⁴⁸

In 1790–1 Bath was back in the spotlight. A pavement of large square stones and sculptural fragments, later identified as the Temple of Minerva, were revealed during the extension of the Pump Room.¹⁴⁹ The discovery of the remains of a classical temple in England and its famous gorgon's head drew the attention of several scholars, including Sir Henry Englefield,¹⁵⁰ at the time vice-president of the Society of Antiquarians, and Samuel Lysons.¹⁵¹ Lysons (1763–1819), director of the Society of Antiquaries from 1798 to 1809 and Fellow of the Royal Society, played a key role in the development of Roman archaeology at the turn of the nineteenth century. In particular, the splendid engravings of buildings and mosaics published in his *Reliquiae Britannico-Romanae* between 1813 and 1817 still constitute an invaluable source of information.¹⁵² The frontispiece of the section dedicated to the 'Remains of Two Temples and other Antiquities Discovered at Bath'¹⁵³ (FIG. 14) is particularly relevant here. The illustration, based on the drawings of the architect Robert Smirke Junior, is among the earliest 'archaeological' reconstructions of life in Britain during the Roman period. Scott has rightly noted how the dignified appearance of the figures in the foreground creates continuity between the refined eighteenth-century Bath and its Roman counterpart.¹⁵⁴ To accentuate this link even further, the author depicted what appears to be a bath-house to the right of the temple, with its thick coils of rising steam, a familiar sight for visitors of Georgian Bath.¹⁵⁵

Among the authors that engaged with the Roman past of Bath during the late eighteenth–early nineteenth centuries, we should finally mention Richard Warner (1763–1857), who published two books on the subject. The first, *An Illustration of the Roman Antiquities Discovered at Bath*,¹⁵⁶ was an erudite description of Roman inscriptions and sculptures from the city. In its introduction, Warner ridiculed the ‘fanciful descriptions of Jeffery of Monmouth’¹⁵⁷ that presented Bath as a majestic city well before the arrival of the Romans, a picture dear to John Wood the Elder. He also describes how, after the conquest, the Romans speedily arranged to ‘collect together the mineral water that had hitherto wasted their healing powers on the wild solitudes through which they flowed’,¹⁵⁸ transforming the city in a ‘place of resort’.¹⁵⁹ Again, a clear connection between ancient Bath and its Georgian counterpart is evident. In his *History of Bath*, Warner expands on this subject and claims that the establishment at Bath was deliberately built by the Romans to corrupt the natives, ‘enervating their bodies, emasculating their mind, and fitting them for irreversible bondage’.¹⁶⁰ A few pages later, Warner tries to explain the Romans’ obsession for bathing and his words nicely lead us to the next section:

As *linen* was not generally used till the times of the lower empire, cleanliness imposed upon them the necessity of repeated ablutions; and hence, the decent Roman, after every sort of exercise or exertion, plunged into the bath, to free himself from the disagreeable consequences of extreme heat and to refresh and invigorate his exhausted frame.¹⁶¹

AN ELUSIVE LEGACY

While classical architecture and its modern reassessments by Palladio and Inigo Jones were the core source of inspiration for Georgian architects,¹⁶² the impact that Roman bath-houses had on their designs was apparently negligible.¹⁶³ Warner’s remarks seem to suggest that the reason behind this had to do with contemporary ideas about cleanliness and personal hygiene. As summarised by Sweet, ‘the quality of Roman virtue and patriotism may have shaped the code of eighteenth-century gentlemanly behaviour, but the Romans’ cult of cleanliness had not won the same widespread admiration’.¹⁶⁴ However, while a serious debate about the benefits of reintroducing public baths did not take off until the 1790s,¹⁶⁵ from the late seventeenth century onwards a number of houses and gardens started to be equipped with private baths, testifying to their growing popularity among the elite.¹⁶⁶ The works of physicians such as Edward Tyson, Charles Leigh, John Floyer (see below) and his collaborator Edward Baynard emphasised the benefits of cold bathing¹⁶⁷ and their ideas were popularised by John Locke’s *Some Thoughts concerning Education*, published in 1693.¹⁶⁸

Purpose-built structures appeared in both urban (e.g. John Pinney's Georgian House in Bristol) and country houses (e.g. Streethay, Staffs; Corsham Court and Stourhead, Wilts; Painswick, Glos.; Walton Hall, Warks), where these facilities were set in the landscape, often in association with other garden features such as grottos and cascades.¹⁶⁹ Their architecture differs greatly, from the double-storey, octagonal bath-house designed by Sir Charles Mordaunt in 1748 at Walton Hall¹⁷⁰ to the Gothic bath-house at Corsham Court built by the famous landscape architect Lancelot Brown (c. 1716–1783). Overall, despite the occasional presence of statues of classical gods and nymphs (e.g. Painswick and Stourhead), the influence of Roman and, in particular, Romano-British bath-houses on these buildings appears more superficial than substantial. For instance, the rectangular plunge pool at Painswick (FIG. 15) is reminiscent of the *piscinae* or *natationes* associated with several Romano-British civilian and military baths,¹⁷¹ but none of them had been excavated at the time of its construction in the mid-eighteenth century and a direct inspiration from renaissance and baroque Italian models seems more plausible.¹⁷²

A similar architectonic variability can be seen in contemporary spas. While hot mineral-water baths were appreciated by the English elite since the sixteenth century, during the first half of the eighteenth century the introduction of turnpike roads, which substantially improved mobility across the country, made major spas, such as Baths and Tunbridge Wells, popular also among the middle ranks of society.¹⁷³ New establishments appeared in this period, the vast majority of which provided facilities only for cold bathing, in line with contemporary fashion.¹⁷⁴ St Chad's Bath at Unite's Well, near Lichfield (Staffs), was constructed between 1697 and 1702 by the physician John Floyer (1649–1734), one of the most fervent supporters of the healing virtues of cold bathing.¹⁷⁵ Whereas claiming that he was 'publish[ing] no new doctrine, but only design[ing] to revive the Ancient practice of Physick in using cold baths',¹⁷⁶ Floyer was very aware that the ancient physicians such as Hippocrates contemplated both hot and cold baths among their remedies.¹⁷⁷ Nevertheless, as a new Cato who 'opposed the introducing the use of hot Baths in Rome, by which the Roman Manners might be corrupted, and their Bodies made more Effeminate', Floyer encouraged 'this present Age to leave off the imprudent Use of Hot Baths, and to regain their ancient natural vigour, strength and hardiness by a frequent Use of Cold Bathing'.¹⁷⁸ The complex at Unite's Well is so described by its creator:

The Figure of these baths is oblong, sixteen Foot long [c. 4.57m], and about Ten broad [c. 3.04m]. The Baths lie close together, but are divided by a Wall, and the lower

receives the Water from the other. The upper I call for Distinction, *The Ladies Bath*; and the lower, *The Mens Bath*. The Water is sufficiently deep to reach up to the Neck, and can be conveniently emptied as oft as we please, and will fill both Baths in a Nights time: The Descent into the Bath is by Stone-steps, and there is a convenient Room built to each Bath, for Undressing, and Sweating, upon great occasions.¹⁷⁹

The baths later became part of a botanic garden designed by the new owner of the land, Erasmus Darwin.¹⁸⁰ The relevant entry in the Historic England database of Listed Buildings lists the structure as ‘Darwin’s Bath’ and describes it as formed by a ‘sandstone base with brick walls and segmental corrugated iron roof’.¹⁸¹ The site is on private land and its poor state of preservation prevents a precise assessment of the Roman influences on the architecture of these facilities. The only eighteenth-century representation of the building, a sketch by Richard Greene dating to 1770,¹⁸² exclusively shows part of its exterior. However, considering Floyer’s familiarity with Greek and Roman authors and his interest in ancient balneology, it is plausible that the design of these baths was somehow classical in inspiration, as the presence of rooms ‘for Undressing, and Sweating’ seems to suggest.

The influence of Roman bath buildings on larger Georgian facilities in spa towns like Bath was minimal. We have already seen how John Wood the Elder’s planned renovation of the King’s and Queen’s Baths in 1738 was never accomplished. Between 1773 and 1777, his son John Wood the Younger carried out a full rebuilding of the Hot Baths. The new structure was a central-plan building with a central pool surrounded by four symmetrical parts, each including entrance lobbies, dressing rooms, and, alternatively, a sudatory or a dry pump room.¹⁸³ The impact that the Roman remains recorded by Lucas and Wood two decades before had on this sophisticated structure appears to have been very modest indeed. Regardless of their classical decorations and colonnades, the same can be said of the new Pump Room and King’s Bath complex, completely reconstructed in the 1790s.¹⁸⁴

Despite being frequently mentioned in contemporary treatises on balneology, the architectonic links between Roman baths and eighteenth-century private and urban bath buildings were feeble. The eclectic appearance of the latter seems to reflect mainly the personal taste of their architects and patrons. The only exception was the hypocaust, which inspired the underfloor heating system of the hall of the county house at Holkham Hall (Norfolk), dating from 1734, and the central heating of the residence at West Wycombe Park (Bucks), started in the 1740s.¹⁸⁵ The latter is a particularly fascinating case because its structure was directly modelled on the hypocaust discovered at Lincoln in 1739¹⁸⁶ and illustrated by Vertue (FIG. 6).

CONCLUSIONS

Roman baths and their immediately recognisable hypocausts were considered by some Georgian antiquarians among the most conspicuous signs of the Roman presence in Britain,¹⁸⁷ the latter being described as an ‘incomparable invention’.¹⁸⁸ The ancient heating system was so iconic that it was reproduced in eighteenth-century country houses, many being actual imitations of Roman villas. The complexity of hypocausts, described by Vitruvius and Pliny the Younger, drew the attention of several scholars, even though the precise functioning and nomenclature of their components was still a matter of debate. As we have seen, the subtleties of Vitruvius’ language were in part responsible for these discordances and misconceptions. Some of these were reinforced by earlier antiquarian interpretations, spoiled by their reliance on an alleged Roman painting from the *Thermae of Titus* in Rome. The two peculiar hypocausts discovered at Bath in 1727 and 1755 were also paradoxically responsible for adding to this confusion, confirming with their unusual arrangements of box flue-tiles Stukeley’s misleading reconstruction of a Roman heated floor (FIG. 2).

Despite these issues, most of the antiquarian accounts examined for this study stand out for their accuracy. Both renowned authors like Charles Lucas and neophytes like John Tabor were concerned with painstakingly recording the remains and measuring them as correctly as possible. The standards for plans and drawings were also generally very high, with the members of the Society of Antiquarians well aware of the importance of visual records in the study of antiquities.¹⁸⁹ The quality of some of these plates is exceptional, both in terms of draughtsmanship and detail. In particular, the watercolour by George Vertue of the hypocaust found at Lincoln in 1740 (FIG. 6) is remarkable in showing what looks like a snap-shot of the site soon after its unearthing, revealing the ‘techniques of excavation’ and tools used at the time. A more attentive analysis of these early archaeological illustrations has revealed several peculiar features, including one of the first depictions of relief-patterned box tiles (FIG. 4); the apparently unique solution of rows of box flue-tiles over pillared hypocausts at Bath (FIGS 5, 8); the curious square bricks with holes in the centre from the military baths at Benwell (FIG. 7); and the possible D-shaped half box tile from Hovingham (FIG. 11).

These meticulous illustrations were constantly referred to in the reports examined, challenging the idea that eighteenth-century antiquarians always gave priority to ancient literary sources over the archaeological evidence and that the latter was used only to confirm

the information provided by classical texts.¹⁹⁰ Barbara Maria Stafford has noted a correlation between eighteenth-century anatomic and archaeological illustrations, in particular between the engravings of Giovanni Battista Piranesi (1720–1778) and contemporary republishing and reinterpretation of Andreas Vesalius' *De humani corporis fabrica*¹⁹¹ by French, English, and Dutch anatomists. She argues that Piranesi was influenced by different “surgical” strategies’ in his depictions of ancient monuments in Rome and that in using ‘the etching needle as a creative surgical tool to uncover information about an otherwise irretrievable past’, he ‘transformed the menial expository tasks formerly assigned to engravings’.¹⁹² A similar case can be made for the works of Georgian antiquarians. While ancient sources were certainly heavily relied on to engage with Roman antiquities, the physical remains had significance on their own and their accurate depiction became indispensable. Without a visual representation, words alone were perceived as insufficient and sometimes relegated to mere captions (e.g. FIGS 7, 11). A similar attitude permeated contemporary scientific books, where the text was often complementary¹⁹³ or even subordinate¹⁹⁴ to the illustrations, the latter being increasingly improved with the move from woodcuts to metal plate engraving.¹⁹⁵

Another intriguing trait emphasised by this overview of eighteenth-century writings is the steady, if slowly developing, reconnection between the city of Bath and its classical past. If at the beginning of the century very little was known about the Roman city, the discoveries in 1727, 1738, and especially 1755 caused a sensation, at least at a local level, and the Duke of Kingston’s decision to build his new baths over the ancient remains implied a sense of continuity with the Roman past.¹⁹⁶ This link was reinforced after the partial unearthing of the Temple of Minerva in 1790–1, and emerged in contemporary authors like Samuel Lysons and Richard Warner. Nevertheless, architectonic influences of Roman baths on eighteenth-century facilities in the city remained minimal, even in the works of John Wood the Younger who had actively collaborated with Charles Lucas during the 1755 excavations.

Finally, it is important to underline how the evidence collected for this study has revealed the origins of some methodological issues that still affect scholarship today. In particular, the terminological disputes that excited early excavators of Roman baths¹⁹⁷ have not been completely settled yet and terminology remains a central concern for baths scholars.¹⁹⁸ The Latin terms adopted by antiquarians to identify different rooms of the baths are still widely used in modern literature despite the shortcomings of this practice having been repeatedly addressed.¹⁹⁹ While with smaller structures the use of traditional

nomenclature is reasonably effective, this classification becomes clumsy and contrived when the number of rooms increases and its dogmatic adoption can lead to a simplistic interpretation of the archaeology, with an over-imposition of functions and labels. Furthermore, the antiquarian focus on the minutiae of the architectonic components of baths to the detriment of their socio-cultural role, often taken for granted, had a decisive influence on the direction of the subsequent scholarship in Britain. Baths continued to be perceived as symbols of Roman presence in the country but the understanding of the nuances of their social function has progressed very little and would certainly deserve greater scholarly attention.

ACKNOWLEDGMENTS

I would like to thank Sarah Scott for her encouragement and direction throughout the course of this project. Thanks also to Neville Brown for allowing me to visit the remains of the bathhouse at Unite's Well and to Non Morris for her beautiful picture of the plunge pool at Painswick. I am indebted to Damjan Krsmanovic, Alessio Mattana, and Jane Ainsworth for their comments on earlier drafts of this paper and to the two anonymous referees for suggesting further improvements. I would also like to thank the Roman Society, which generously covered the cost of reproducing the illustrations for this paper.

Flat 6, 12A Clarendon Road
Leeds, LS2 9NN
giacomo.savani@gmail.com

¹ e.g. Liakos 2001; Ousterhout 2004; Fleming 2006.

² Sweet 2007, 53.

³ Ayres 1997.

⁴ Sweet 2004, 155–87.

⁵ Hingley 2008a; 2008b.

⁶ Piggot 1985; Haycock 2002.

⁷ Scott 2013; 2014.

⁸ e.g. Haskell & Penny 1981, 85–8; Ayres 1997, 115–51.

⁹ Hingley 2008a, 173–201.

¹⁰ Ayres 1997, 84–5.

¹¹ Sweet 1997, 43–7; Sweet 2004, 172.

¹² Hingley 2008a, 160–3.

¹³ Hearne, 1712.

-
- ¹⁴ Carte n. d.; see Hingley 2008a, 164–9.
- ¹⁵ Especially Herculaneum, Pompeii and Stabiae; see Parslow 1998.
- ¹⁶ Sweet 2004, 182.
- ¹⁷ *ibid.*, 185.
- ¹⁸ Kielmansegge 1902, 127–8, quoted in Sweet 2004, 185.
- ¹⁹ Pope 1770, 11.
- ²⁰ *ibid.*, 11–2.
- ²¹ *ibid.*, 12.
- ²² *ibid.*
- ²³ Ison 1948, 55.
- ²⁴ Hembry 1990, 112–31.
- ²⁵ Mowl & Earnshaw 1988, 27–38.
- ²⁶ Wood, J. 1742, republished with additions in 1749, the edition cited here.
- ²⁷ *ibid.*, 232.
- ²⁸ *ibid.*
- ²⁹ Geoffrey of Monmouth, *Historia Regum Britanniae* 2, 10.
- ³⁰ J. Wood 1749, 7–41.
- ³¹ *ibid.*, Preface, unpaginated; see Sweet 1997, 113–6; Hingley 2008a, 198–202.
- ³² J. Wood 1749, 170.
- ³³ Cunliffe 1971a, 12, 169–70.
- ³⁴ J. Wood 1749, 170–1 and Pl. 7.
- ³⁵ *ibid.*, 267.
- ³⁶ *ibid.*
- ³⁷ Anonymous 1755, 376; Cunliffe 1969, 90, 132.
- ³⁸ Lucas 1756, vol. 3, 222–30 and Pl. II.
- ³⁹ Mason 2013.
- ⁴⁰ Lucas 1756, vol. 3, 222–30.
- ⁴¹ Cunliffe 1969, 100–3.
- ⁴² *ibid.*, Figs 31, 34, 44–7.
- ⁴³ Lucas 1756, vol. 3, 225. All these features relate to Cunliffe’s Period IV (undated).
- ⁴⁴ *ibid.*, 228.
- ⁴⁵ *ibid.*, 224–5.
- ⁴⁶ *ibid.*, 226–7.
- ⁴⁷ *ibid.*, 230.
- ⁴⁸ Stukeley 1761.
- ⁴⁹ Sweet 2004, 413, ft. 105.
- ⁵⁰ Ayres 1997, 91–9; Haycock 2002, 116–20.
- ⁵¹ For a full list of publications, see Haycock 2002, 264–5.
- ⁵² Stukeley 1740.

-
- ⁵³ Stukeley 1724, *Centuria I*, republished with *Centuria II* in 1776, the edition cited here.
- ⁵⁴ Stukeley 1776, 3.
- ⁵⁵ Although his claim that Agrippa built 170 baths in Rome (Stukeley 1761, 678) is based on a misreading of Pliny (*Nat. Hist.* 36.24), common to other eighteenth-century writers (e.g. King 1737, 6). On this passage, see Fagan 1993; 1999, 42.
- ⁵⁶ Stukeley 1761, 680.
- ⁵⁷ Stukeley 1776, 70.
- ⁵⁸ Stukeley 1734, 112–5.
- ⁵⁹ See Lucas (1756, vol. 1, 202, 209, 231–2) for similar complaints.
- ⁶⁰ Stukeley 1734, 114, Pl. 116.
- ⁶¹ Tabor 1717, 558; although he alternatively proposes that they might have functioned as ‘Passages to convey Water’.
- ⁶² Lyster 1706–7, Figs 1–6.
- ⁶³ Mackreth 2000, 347–8.
- ⁶⁴ Lyster 1706–7, 2226.
- ⁶⁵ *Ibid.*, 2227, Fig. 4.
- ⁶⁶ Sympson 1739–41, 860. Annette Mackin, Archive Cataloguer of the Royal Society, informed me that this item is no longer in their catalogue. She noted that in 1781 much of the collection of the Society was transferred to the British Museum and that the model might still be there. While a brief note in the Book of Donations of the Museum dating 15th June 1781 confirms this donation (‘A large collection of natural and artificial Curiosities, being the Museum of the Royal Society: from the said Society’), no record of this object exists there either (F. Hillier, pers. comm.).
- ⁶⁷ Harwood & Baxter 1706–7.
- ⁶⁸ *ibid.*, 2229.
- ⁶⁹ Hunter 1702–3, 1131.
- ⁷⁰ Gibson 1695.
- ⁷¹ In Lhuys’s ‘Additions to Caernarvonshire’: Gibson 1695, 670–1, 697, Fig. 8; see Walters & Emery 1977.
- ⁷² Gibson 1695, 688–9.
- ⁷³ Harwood & Baxter 1706–7, 2232.
- ⁷⁴ Tabor 1717, 559.
- ⁷⁵ *ibid.*, 550–8.
- ⁷⁶ See Betts *et al.* 1994.
- ⁷⁷ Tabor 1717, 558.
- ⁷⁸ Bodleian Library, Gough Maps 28, fol. 64 recto (item a); copy by Priscilla Combe in British Library, Cartographic Items Maps K.Top.37.26.o; reproduced in Green 1890, plate opposite to page 118.
- ⁷⁹ Cunliffe 1969, 110–1. As noted by Yegül (1992, 464, ft. 7), it is not certain if these tiles contained holes for the gasses to circulate or if they were employed to lighten the load of the *suspensura* instead.
- ⁸⁰ Cunliffe 1969, 114–5.
- ⁸¹ Sweet 2007, 60, caption to Fig. 30.
- ⁸² Society of Antiquaries of London; reproduced in Smiles 2007, 127, Fig. 88.
- ⁸³ Sympson 1739–41.
- ⁸⁴ *ibid.*, Figs 1–5.

-
- ⁸⁵ Smiles 2007, caption to Fig. 88.
- ⁸⁶ *Vetusta Monumenta* 1740, Pl. 57.
- ⁸⁷ *Vetusta Monumenta* 1740, caption H to Pl. 57.
- ⁸⁸ Sympson 1739–41.
- ⁸⁹ *ibid.*, 858.
- ⁹⁰ Jas. Wood 2004, vol. 2, 73.
- ⁹¹ Differently from the brick-made *pilae* and the square tiles that cover them, the two flues are not painted in burnt sienna in Vertue’s watercolour, possibly suggesting a different material.
- ⁹² Sympson 1739–41, 858, 860.
- ⁹³ *ibid.*, 856.
- ⁹⁴ *ibid.*, 857.
- ⁹⁵ Harwood & Baxter 1706–7, 2232.
- ⁹⁶ Vitruvius, 5.10.1: ‘Three bronze tanks should be placed above the under-floor furnace, one for hot, another for warm and a third for cold water; they should be located in such a way that the amount of hot water [*sic*] flowing from the warm into the hot tank will be replaced by an equal amount flowing from the cold into the warm tank; and the half-cylinders of the baths should be heated by the same under-floor furnace’ (Translated by R. Shofield).
- ⁹⁷ Yegül 1992, 373.
- ⁹⁸ Vitruvius, 5.1.6.
- ⁹⁹ Vitruvius, 10.14.1; 10.16.12.
- ¹⁰⁰ e.g. Cic. *Ad Brut.* 22.87; Verg. *Aen.* 1.505.
- ¹⁰¹ Brand 1789, vol. 1, 606; Society of Antiquaries of London, *Britannia Romana* 89.4; reproduced in Lewis 2007, 109, Fig. 16
- ¹⁰² These curious items were almost certainly *bessales*, small square bricks mainly employed to create *pilae*. Three similar bricks with holes in the centre are known from Chester (Brodrigg 1987, 35), but their function remains unclear.
- ¹⁰³ Add MS 21577 B (p. 132); reproduced in Cunliffe 1969, Pl. xxiii and Cunliffe 1986, 45, Fig. 34.
- ¹⁰⁴ Cunliffe 1969, 114.
- ¹⁰⁵ *ibid.*, 110–1, 133, Fig. 48.
- ¹⁰⁶ Brodrigg (1987, 73) mentions only two other sites where box-flue tiles were used under hanging floors: a bath complex in *Insula VIII* at Silchester (Hilton Price 1887, 278 and Pl. xix) and a bath-house at Holt (Grimes 1930, 18–9). However, both these arrangements are quite different from the hypocausts at Bath. A third comparandum is the hypocaust of Room G of the East Wing baths at Fishbourne (c. 130–160 CE, West Sussex), although this was a channelled structure, not a pillared one (Cunliffe 1971b, vol. 1, 175).
- ¹⁰⁷ Cameron 1772, reissued in 1774 and 1775.
- ¹⁰⁸ *ibid.*, iv.
- ¹⁰⁹ Boyle 1730. On Lord Burlington and his work as architect and antiquarian, see Ayres 1997, 105–14
- ¹¹⁰ Cameron 1772, iv.
- ¹¹¹ *ibid.*, Chapter 1, 23–36.
- ¹¹² Vitruvius, 5.10.1.
- ¹¹³ Cameron 1772, 33–4.
- ¹¹⁴ *ibid.*, 37, unnumbered plate.
- ¹¹⁵ de Montfaucon 1722, vol. 3.2, plate between pages 204 and 205.

-
- ¹¹⁶ Long (ed.) 1828–43, vol. 4, 28, unnumbered plate.
- ¹¹⁷ de’ Rossi & Maffei 1704, 153–4; translated by the author. During the eighteenth century, antiquarians used the toponym ‘Baths of Titus’ to indicate the area of the Baths of Trajan or, alternatively, the subterranean rooms of the *Domus Aurea* (R. Volpe, pers. comm.; Salmon 1993: 71).
- ¹¹⁸ Whitehouse 2001.
- ¹¹⁹ Campbell 2004.
- ¹²⁰ A. Claridge pers. comm.
- ¹²¹ Whitehouse 2001, 15–21 and Fig. 12.
- ¹²² Giunti (ed.) 1553, plate opposite to page 489; I would like to thank J. DeLaine for this reference. The image was probably among the 300 illustrations prepared by Rusconi for his unpublished translation of Vitruvius’ *De architectura* (see Bedon 1996). Amanda Claridge (pers. comm.) has noted a correlation between the figures in the *balneum* bath tub on the right of the illustration and those in a bathing scene reconstructed in the second edition of G. Mercuriale’s *De Arte Gymnastica* (1573, 45).
- ¹²³ Stefanizzi 2011.
- ¹²⁴ Vitruvius, 5.10.1.
- ¹²⁵ See ft. 99.
- ¹²⁶ Fra Giocondo 1511, 54, unnumbered plate.
- ¹²⁷ Ciapponi 1984; for a recent assessment of Fra Giocondo’s works, see Gros & Pagliara 2014.
- ¹²⁸ A drawing later readapted by Palladio: Barbaro 1567, 265, unnumbered plate.
- ¹²⁹ e.g. de Montfaucon 1719–24, vol. 3.2, 202; Galiani 1758, 202, ft. 3; Cameron 1772, 34.
- ¹³⁰ Lyon 1779, 326. See also Newton 1771, 116, ft. 7.
- ¹³¹ Lyon 1779, 326.
- ¹³² *ibid.*, 329. Tellingly, while it is now certain that the *laconicum* was a separate room, the arguments about its precise function are still on-going. This is commonly seen as a hot, dry-steam sweat room, in contrast with the *sudatorium*, a hot, wet-steam sweat room (e.g. de Haan 2011, 78). However, a case has been made for identifying the latter as an evolution of the *laconica* (Nielsen 1990, vol. 1, 78).
- ¹³³ Hingley 2008a, 169–70.
- ¹³⁴ *ibid.*, 171–2, with bibliography.
- ¹³⁵ I am grateful to D. Powlesland for bringing this site to my attention.
- ¹³⁶ Drake 1736.
- ¹³⁷ Lukis 1882, vol. 3, 355–6.
- ¹³⁸ For the long collaboration between Burlington and Drake, see Ayres 1997, 108–12.
- ¹³⁹ D. Powlesland, pers. comm.
- ¹⁴⁰ I. Betts, pers. comm.
- ¹⁴¹ Rooke 1787. Rooke spells the name of the site ‘Mansfield Woadhouse’.
- ¹⁴² Columella *De re rustica*, 1.6.1.
- ¹⁴³ Rooke 1787, 364, 367.
- ¹⁴⁴ *ibid.*, 368–9.
- ¹⁴⁵ Smiles 2007, 123.
- ¹⁴⁶ Also known as Llanfrynach in the literature, see RCHME Brecknock 1986, 181, ft. 1.
- ¹⁴⁷ Hay 1785, plate opposite to page 206.
- ¹⁴⁸ Oswald 1949, 1.

-
- ¹⁴⁹ Cunliffe 1971a, 9; Hingley 2008a, 242–5.
- ¹⁵⁰ Englefield 1792.
- ¹⁵¹ Lysons 1813–17, vol. 1, part II, 1–12 and Pls I–XIII.
- ¹⁵² Scott 2013; 2014.
- ¹⁵³ Lysons 1813–17, vol. 1, part II, frontispiece.
- ¹⁵⁴ Scott 2014, 323–4.
- ¹⁵⁵ See the steamy atmosphere in Thomas Rowlandson’s 1798 satirical illustration *Comforts of Bath: View inside the King’s Bath* (Victoria Art Gallery, Bath, BATVG: P: 1950.7.e).
- ¹⁵⁶ Warner 1797. See Hingley 2008a, 243–5.
- ¹⁵⁷ Warner 1797, i.
- ¹⁵⁸ *ibid.*, vii.
- ¹⁵⁹ *ibid.*, x.
- ¹⁶⁰ Warner 1801, 18. The author is here evidently elaborating on Tacitus, *Agr.* 21, 2.
- ¹⁶¹ Warner 1801, 22, ft. †. For similar remarks, see Pownall 1788, 191.
- ¹⁶² Stillman 1988, in particular Vol. 1, 27–78; Ayres 1997, 105–7.
- ¹⁶³ Sweet (2004, 182) explains this lack of interest claiming that ‘[t]here were no discussions of baths in Vitruvius’s writing’ but, as I have shown, this was certainly not the case.
- ¹⁶⁴ *ibid.*
- ¹⁶⁵ Smith 2007, 262.
- ¹⁶⁶ Hickman 2010.
- ¹⁶⁷ Jenner 1998, 197–201.
- ¹⁶⁸ Locke 1693; see Smith 2007, 220–1.
- ¹⁶⁹ Hickman 2010, 37.
- ¹⁷⁰ Smith 2007, 407, fn. 38.
- ¹⁷¹ Savani 2017, 7, 80.
- ¹⁷² See Hunt 1986, 180–222; Hingley 2008a, 172, ft. 81.
- ¹⁷³ Hembry 1990, 111.
- ¹⁷⁴ See Hembry 1990, 159–78 for a complete list of sites and discussion. Hyde Spa, Prestbury (Ches) ‘was exceptional in providing a hot bath as well as a cold one as early as 1751’ (*ibid.*, 163). An even earlier establishment equipped with ‘a warm Bath, together with a Bagnio or Hummums’ was built by John King, apothecary, at Bungay (Suffolk) (King 1737, viii, quoted in Smith 2007, 242). One of the latest examples of public cold baths opened at Strand Lane, London, in the mid-1770s. These facilities started to be advertised as a set of Roman baths in the 1830s and quickly became an antiquarian curiosity (Trapp 2016).
- ¹⁷⁵ Anonymous 1819, 126; Gibbs 1969; Hembry 1990, 161–2; Jenner 1998, 200.
- ¹⁷⁶ Floyer 1697, Dedication, unpaginated.
- ¹⁷⁷ Floyer & Baynard 1715, 27–49.
- ¹⁷⁸ Floyer 1697, dedication, unpaginated.
- ¹⁷⁹ Floyer & Baynard 1715, 17.
- ¹⁸⁰ Seward 1804, 125–32; Anonymous 1819, 126.
- ¹⁸¹ <https://www.historicengland.org.uk/listing/the-list/list-entry/1294946>, viewed 12 August 2017.
- ¹⁸² Bodleian Library, G. A. Staffs 4*8, opp. p. 563; reproduced in Gibbs & Wilson 2007, 9, Fig. 6.

-
- ¹⁸³ Plans 43 and 45, Bath Central Library; Cunliffe 1986, 136, Fig. 102.
- ¹⁸⁴ Cunliffe 1986, 142–5 and Figs 108–10.
- ¹⁸⁵ Ayres 1997, 126.
- ¹⁸⁶ Worsley 1990, 115.
- ¹⁸⁷ Stukeley 1734, 112; Lucas 1756, vol. 3, 222.
- ¹⁸⁸ Stukeley 1761, 680.
- ¹⁸⁹ Smiles 2007, 123.
- ¹⁹⁰ Sweet 2004, 170.
- ¹⁹¹ Vesalius 1543.
- ¹⁹² Stafford 1993, 58, 64.
- ¹⁹³ e.g. Albin & Derham 1731–8; Block 1785–97.
- ¹⁹⁴ e.g. George Stubbs' famous *The Anatomy of the Horse*, published in 1776.
- ¹⁹⁵ Ford 2003, 568–72.
- ¹⁹⁶ Pope 1770, 12.
- ¹⁹⁷ e.g. Harwood & Baxter 1706–7, 2232; Lyon 1779, 329.
- ¹⁹⁸ DeLaine, 1993, 352.
- ¹⁹⁹ e.g. Rebuffat 1991, 6–7; DeLaine 1999, 10; see also Allison 2001, 183–4.

BIBLIOGRAPHY

Classical and early medieval sources

- Cicero, *Epistulae ad Brutum*, Text edited and translated by D. R. Shackleton Bailey, Loeb Classical Library 462, Cambridge (MA), 2002
- Cicero, *Epistulae ad Quintum Fratrem*. Text edited and translated by D. R. Shackleton Bailey, Loeb Classical Library 462, Cambridge (MA), 2002
- Columella, *De re rustica*. Text translated by B. A. Harrison, Loeb Classical Library 361, London: Cambridge (MA), 1941
- Geoffrey of Monmouth, *Historia Regum Britanniae*. Text edited, commented, and translated by M. D. Reeve and N. Wright, Woodbridge, Suffolk, 2007
- Pliny the Elder, *Naturalis Historia*. Text commented and translated by H. Rackham and W. H. S. Jones, Loeb Classical Library 330, 352, 353, 370, 371, 392, 393, 394, 418, 419, Cambridge (MA), 1938–63
- Statius, *Silvae*. Text edited and translated by D. R. Shackleton Bailey, Loeb Classical Library 206, Cambridge (MA), 2015
- Tacitus, *Agricola*. Text edited, commented, and translated by E. de Saint-Deni, Paris, 1956
- Virgil, *Aeneis*. Text translated by H. Rushton Fairclough and revised by G. P. Goold, Loeb Classical Library 63, Cambridge (MA), 1999
- Vitruvius, *De Architectura*. Text edited, commented, and translated by C. Saliou, Paris, 2009
- Vitruvius, *On Architecture*. Translated by R. Schofield, London, 2009

All other sources

- Albin, E. and Derham, W. 1731–8: *A Natural History of Birds: Illustrated with a Hundred and One Copper Plates, Curiously Engraven from the Life*, 3 Vols, London

- Allison, P. 2001: 'Using the material and written sources: turn of the millennium approaches to Roman domestic space', *American Journal of Archaeology* 105, 2, 181–208
- Anonymous 1755: 'Historical chronicle, Aug. 1755', *Gentlemen's Magazine* 25, 375–7
- Anonymous 1819: *A Short Account of the Ancient and Modern State of the City and Close of Lichfield*, Lichfield
- Ayres, P. 1997: *Classical Culture and the Idea of Rome in Eighteenth-Century England*, Cambridge
- Barbaro, D. 1567: *I Dieci Libri dell'Architettura di M. Vitruvio Tradotti e Commentati da Mons. Daniele Barbaro*, Venice
- Baxter, W. 1719: *Glossarium antiquitatum Britannicarum, sive syllabus etymologicus antiquitatum veteris Britanniae atque Iberniae temporibus Romanorum*, London
- Bedon, A. 1996: 'Giovan Antonio Rusconi: illustratore di Vitruvio, artista, ingegnere, architetto', in H. Burns and A. Bedon (eds), *Della Architettura di Gio[van]Antonio Rusconi*, Testi e fonti per la storia dell'architettura 1, Vicenza, IX–XXI
- Betts, I. M., Black, E. W. and Gower, J. L. 1994: *A Corpus of Relief-Patterned Tiles in Roman Britain*, *Journal of Roman Pottery Studies* 7, Oxford
- Block, M. E. 1785–97: *Ichtyologie, ou, Histoire Naturelle, Générale et Particulière des Poissons: avec des Figures Enluminées, Dessinées d'après Nature*, Berlin
- Boyle, R. 1730: *Fabbriche Antiche Disegnate da Andrea Palladio Vicentino e Date in Luce da Riccardo Conte di Burlington*, London
- Brand, J. 1789: *The History and Antiquities of the Town and County of the Town of Newcastle upon Tyne*, 2 vols, London
- Brodribb, G. 1987: *Roman Brick and Tile*, Stroud
- Cameron, C. 1772: *The Baths of the Romans Explained and Illustrated*, London

- Campbell, I. 2004: *Ancient Roman Topography and Architecture*, Paper Museum of Cassiano dal Pozzo, A Catalogue Raisonné A.9, 3 vols, London
- Carte, S. n. d.: 'An account of Roman pavements; particularly of those discovered at Wellow in Somersetshire, 1737', Society of Antiquaries, MS 264. fol. 103
- Ciapponi, L. A. 1984: 'Fra Giocondo da Verona and his edition of Vitruvius', *Journal of the Warburg and Courtauld Institutes* 47, 72–90
- Cunliffe, B. W. 1969: *Roman Bath*, Reports of the Research Committee of the Society of Antiquaries of London 24, London
- Cunliffe, B. W. 1971a: *Roman Bath Discovered*, London
- Cunliffe, B. W. 1971b: *Excavations at Fishbourne 1961–1969*, 2 vols, Leeds
- Cunliffe, B. W. 1986: *The City of Bath*, Gloucester
- DeLaine, J. 1993: 'Roman baths and bathing', *Journal of Roman Archaeology* 6, 348–58
- DeLaine, J. 1999: 'Bathing and society', in J. DeLaine and D. E. Johnston (eds), *Roman Baths and Bathing. Proceedings of the First International Conference on Roman Baths Held at Bath, England, 30 March – 4 April 1992. Part 1: Bathing and Society*, JRA Supplementary Series 37.1, Portsmouth, Rhode Island, 7–16
- Drake, F. 1736: *Eboracum*, London
- Englefield, H. 1792: 'Account of antiquities discovered at Bath 1790', *Archaeologia* 10, 325–33
- Fagan, G. G. 1993: 'Pliny *Natural History* 36.121 and the number of balnea in Early Augustan Rome', *Classical Philology* 88, 333–5
- Fagan, G. G. 1999: *Bathing in Public in the Roman World*, Ann Arbor
- Fleming, K. 2006: 'The use and abuse of antiquity. The politics and morality of appropriation', in C. Martindale and R. F. Thomas, *Classics and the Uses of Reception*, Oxford

- Floyer, J. 1697: *An Enquiry into the Right Use and Abuses of the Hot, Cold and Temperate Baths in England*, London
- Floyer, J. and Baynard, B. 1715: *Psychrolousia. Or, the History of Cold Bathing: Both Ancient and Modern. In Two Parts*, 4th edition, London
- Ford, B. J. 2003: 'Scientific illustration in the eighteenth century', in R. Porter (ed.), *The Cambridge History of Science. Volume 4, Eighteenth-Century Science*, Cambridge, 561–583
- Fra Giocondo, 1511: *M. Vitruvius per Jocundum solito castigatior factus cum figuris et tabula ut iam legi et intelligi possit*, Venice
- Gaimster, D., McCarthy, S. and Nurse, B. (eds) 2007: *Making History: Antiquaries in Britain 1707–2007*, London
- Galiani, B. 1758: *L'Architettura di M. Vitruvio Pollione colla Traduzione Italiana e Comento del Marchese Berardo Galiani...*, Naples
- Gibbs, D. D. 1969: 'Sir John Floyer, M.D. (1649–1734)', *British Medical Journal* Jan 25, 1(5638), 242–5
- Gibbs, D. D. and Wilson, P. K. 2007: 'Introduction', in *Advice to a Young Physician by Sir John Floyer MD (1649–1734) of Lichfield in Staffordshire*, introduced and edited by D. D. Gibbs and P. K. Wilson, York, 1–25
- Gibson, E. 1695: *Camden's Britannia, Newly Translated into English: with Large Additions and Improvements*, London
- Giunti, T. (ed.) 1553: *De balneis...*, Venice
- Green, E. 1890: 'Thoughts on Bath as a Roman city', *Proceedings of the Bath Natural History and Antiquarian Field Club* 7, 2, 114–26
- Grimes, W. F. 1930: *Holt, Denbighshire: The Works-Depot of the Twentieth Legion at Castle Lyons*, vol. 41 of Y Cymmrodor, London

- Gros, P. and Pagliara, P. N. 2014: *Giovanni Giocondo. Umanista, Architetto, Antiquario*, Padua
- de Haan, N. 2011: *Römische Privatbäder: Entwicklung, Verbreitung, Struktur und Sozialer Status*, Frankfurt am Main
- Harwood, J. and Baxter, W. 1706–7: ‘A Letter from Dr John Harwood ... to Dr Hans Sloane ... concerning the Forementioned Hypocaustum. With part of Two Letters from Mr William Baxter to Dr Harwood, Relating to Wroxeter, and the Hypocausta of the Ancients’, *Philosophical Transaction of the Royal Society of London* 25, 2228–33
- Haskell, F. and Penny, N. 1981: *Taste and the Antique: The Lure of Classical Sculpture 1500–1900*, New Haven; London
- Hay, C. 1785: ‘Description of a Roman hypocaust discovered near Brecknock’, *Archaeologia* 7, 205–10
- Haycock, D. B. 2002: *William Stukeley: Science, Religion, and Archaeology in Eighteenth-Century England*, Woodbridge, Suffolk
- Hearne, T. 1712: ‘A discourse concerning the Stunsfield tessellated pavement’, in J. Leland, *The Itinerary of John Leland the Antiquary*, 9 vols, Oxford, vol. 8, vii–xxxv
- Hembry, P. 1990: *The English Spa, 1560–1815: A Social History*, London
- Hickman, C. 2010: ‘Taking the plunge. 18th-century bath houses and plunge pools’, *Historic Gardens*, Cathedral Communications, 37–40
- Hilton Price, F. G. 1887: ‘Further notes on excavations at Silchester’, *Archaeologia* 50, 263–95
- Hingley, R. 2008a: *The Recovery of Roman Britain 1586–1906: A Colony so Fertile*, Oxford
- Hingley, R. 2008b: ‘Not so Romanized? Tradition, reinvention or discovery in the study of Roman Britain’, *World Archaeology* 40, 3, 427–43

- Hunt, J. D. 1986: *Garden and Grove. The Italian Renaissance Garden in the English Imagination: 1600–1750*, London
- Hunter, C. 1702–3: ‘Part of some letters from Mr. Christopher Hunter to Dr. Martin Lister, F.R.S. concerning several Roman inscriptions, and other antiquities in Yorkshire’, *Philosophical Transaction of the Royal Society of London* 23, 1129–32
- Ison, W. 1948: *The Georgian Buildings of Bath from 1700 to 1830*, London
- Jenner, M. R. S. 1998: ‘Bathing and baptism: Sir John Floyer and the politics of cold bathing’, in K. Sharpe and S. Zwicker (eds), *Refiguring Revolutions: Aesthetics and Politics from the English Revolution to the Romantic Revolution*, Berkeley, 197–216
- Kielmansegge, F. 1902: *Diary of Journey to England in the Years 1761–1762*, London
- King, J. 1737: *An Essay on Hot and Cold Bathing*, London
- Lewis E. 2007: ‘Lost and Found’, in Gaimster *et al.* (eds), 53–67
- Liakos, A. 2001: ‘The construction of national time: the making of the Modern Greek historical imagination’, *Mediterranean Historical Review* 16, 1, 27–42
- Locke, J. 1693: *Some Thoughts Concerning Education*, London
- Long, G. (ed.) 1828–43: *The Penny Cyclopædia of the Society for the Diffusion of Useful Knowledge*, 27 vols, London
- Lucas, C. 1756: *An Essay on Waters: In Three Parts. Treating, I. Of Simple Waters. II. Of Cold, Medicated Waters. III. Of Natural Baths*, 3 vols, London
- Lukis, W. C. 1882: *The Family Memoirs of the Rev. William Stukeley, M. D. and the Antiquarian and other Correspondence of William Stukeley, Roger & Samuel Gale etc.*, 3 vols, Durham
- Lyon, J. 1779: ‘Description of a Roman bath, discovered at Dover’, *Archaeologia* 5, 325–34
- Lysons, S. 1813–17: *Reliquiae Britannico-Romanae. Containing Figures of Roman Antiquities Discovered in Various Parts of England*, 4 vols, London

- Lyster 1706–7: ‘A description of a Roman sudatory, or hypocaustum, found at Wroxeter in Shropshire, anno 1701 ...’, *Philosophical Transaction of the Royal Society of London* 25, 2226–7
- Mackreth, D. 2000: ‘The nineteenth-century excavations in the baths *insula* by Thomas Wright and others’, in P. Ellis, *The Roman Baths and Macellum at Wroxeter: Excavations by Graham Webster 1955–85*, Archaeological Report English Heritage 9, London, 347–75
- Mason, A. 2013: ‘The ‘political knight errant’ at Bath: Charles Lucas’s attack on the spa medical establishment in *An Essay on Waters* (1756)’, *Journal for Eighteenth-Century Studies* 36, 1, 67–83
- Mercuriale, G. 1573: *De Arte Gymnastica*, Venice
- de Montfaucon, B. 1719–24: *L’Antiquité Expliquée et Représentée en Figures*, 15 vols, Paris
- Mowl, T. and Earnshaw, B. 1988: *John Wood: Architect of Obsession*, Bath
- Newton, W. 1771: *The Architecture of M. Vitruvius. Pollio...*, London
- Nielsen, I. 1990: *Thermae et Balnea*, 2 vols, Aarhus
- Oswald, A. 1949: ‘A re-excavation of the Roman villa at Mansfield Woodhouse, Nottinghamshire, 1936–39’, *Transactions of the Thoroton Society of Nottinghamshire* 53, 1–14
- Ousterhout, R. 2004: ‘The East, the West, and the appropriation of the past in Early Ottoman architecture’, *Gesta* 43, 2, 165–76
- Parslow, C. C. 1998: *Rediscovering Antiquity: Karl Weber and the Excavation of Herculaneum, Pompeii, and Stabiae*, Cambridge
- Piggot, S. 1985: *William Stukeley: An Eighteenth-Century Antiquary*, New York
- Pope, C. 1770: *The New Bath Guide or Useful Pocket Companion*, Bath

- Pownall, T. 1788: *Notices and Descriptions of Antiquities of the Provincia Romana of Gaul, Now Provence, Languedoc, and Dauphine*, London
- RCHME Brecknock 1986: *Royal Commission on Ancient and Historical Monuments in Wales. An Inventory of the Ancient Monuments in Brecknock (Brycheiniog). The Prehistoric and Roman Monuments. Part ii: Hill-Forts and Roman Remains*, London
- Rebuffat, R. 1991: 'Vocabulaire thermal. Documents sur le bain romains', in École Française de Rome (ed.), *Les Thermes Romains. Actes de la Table Ronde Organisé par Ecole Française de Rome (Rome 11–12 Novembre 1988)*, Collection de l'École Française de Rome 142, Rome, 1–34
- Rooke, H. 1787: 'An account of the remains of two Roman villae discovered near Mansfield Woadhouse, in May and October, 1786', *Archaeologia* 8, 363–76
- de' Rossi, D. and Maffei, P. A. 1704: *Raccolta di Statue Antiche e Moderne*, Rome
- Salmon, F. 1993: 'Charles Cameron and Nero's *Domus Aurea*: 'una piccola esplorazione'', *Architectural History* 36, 69–93
- Savani, G. 2017: *Rural Baths and Bathing: Socio-Cultural Interactions in the Romano-British Countryside*, PhD thesis at the University of Leicester
- Scott, S. 2013: 'Samuel Lysons and his circle: art, science and the remains of Roman Britain', *Bulletin of the History of Archaeology* 23, 2, 1–22
- Scott, S. 2014: 'Britain in the classical world: Samuel Lysons and the art of Roman Britain 1780–1820', *Classical Receptions Journal* 6, 2, 294–337
- Seward, A. 1804: *Memoirs of the Life of Dr. Darwin: Chiefly During his Residence at Lichfield: With Anecdotes of his Friends, and Criticisms on his Writings*, London
- Smiles, S. 2007: 'The art of recording', in Gaimster *et al.* (eds), 123–41
- Smith, V. 2007: *Clean: A History of Personal Hygiene and Purity*, Oxford
- Stafford, B. M. 1993: *Body Criticism: Imaging the Unseen in Enlightenment Art and Medicine*, Cambridge (MA)

- Stefanizzi, S. 2011: *Il «De Balneis» di Tommaso Giunti (1553). Autori e Testi*, Aequae: Studi e testi sulle terme 6, Florence
- Stillman, D. 1988: *English Neo-Classical Architecture*, 2 Vols, London
- Stubbs, G. 1776: *The Anatomy of the Horse*, London
- Stukeley, W. 1724: *Itinerarium curiosum, or, An Account of the Antiquities, and Remarkable Curiosities in Nature or Art, Observ'd in Travels thro' Great Britain. Illustrated with Copper Prints. Centuria I*, London
- Stukeley, W. 1734: *Of the Gout*, London
- Stukeley, W. 1740: *Stonehenge: A Temple Restor'd to the British Druids*, London
- Stukeley, W. 1761: 'The structure and use of Roman baths in England', unpublished paper, Society of Antiquarians, Minute Books, viii (typescript), 677–8
- Stukeley, W. 1776: *Itinerarius curiosum, or, An Account of the Antiquities, and Remarkable Curiosities in Nature or Art, Observ'd in Travels thro' Great Britain. Centuria II*, London
- Sweet, R. 1997: *The Writing of Urban Histories in Eighteenth-Century England*, Oxford
- Sweet, R. 2004: *Antiquaries. The Discovery of the Past in Eighteenth-Century Britain*, London
- Sweet, R. 2007: 'Founders and fellows', in Gaimster *et al.* (eds), 53–67
- Sympson, T. 1739–41: 'Extract of letters from Mr T. Sympson, to Browne Willis ... concerning the remains of a Roman hypocaustum or sweating-room, discovered under-ground at Lincoln, anno 1739', *Philosophical Transaction of the Royal Society of London* 41, 855–60
- Tabor, J. 1717: 'On a tessellated pavement and other Roman antiquities ... near East Bourne in Sussex ...', *Philosophical Transaction of the Royal Society of London* 30, 549–63

- Trapp, M. 2016: 'A 'fine specimen of Neronian brickwork' in Victorian London: how the Strand Lane cold bath became Roman', *International Journal of the Classical Tradition* 24, 147–74
- Vesalius, A. 1543: *De humani corporis fabrica*, Basel
- Vetusta Monumenta* 1740: *Vetusta Monumenta quae ad rerum Britannicarum memoriam conseruandam*, vol. 1, London
- Walters, G. and Emery, F. 1977: 'Edward Lhuyd, Edmund Gibson, and the printing of Camden's *Britannia*, 1695', *Library* 5.32, 2, 109–37
- Warner, R. 1797: *An Illustration of the Roman Antiquities Discovered at Bath*, Bath
- Warner, R. 1801: *History of Bath*, Bath
- Whitehouse, H. 2001: *Ancient Mosaics and Wallpaintings*, Paper Museum of Cassiano dal Pozzo, A Catalogue Raisonné A.1, London
- Wood, J. 1749: *An Essay Towards a Description of Bath. In four parts*, 2nd edition, Bath
- Wood, Jas. 2004: *Conservation Plan for Lincoln's Roman Monuments*, 2 Vols, Lincoln
- Worsley, G 1990: 'West Wycombe Park, Bucks', *Country Life* (6 September 1990), 112–17
- Yegül, F. 1992: *Baths and Bathing in Classical Antiquity*, New York

FIGURES

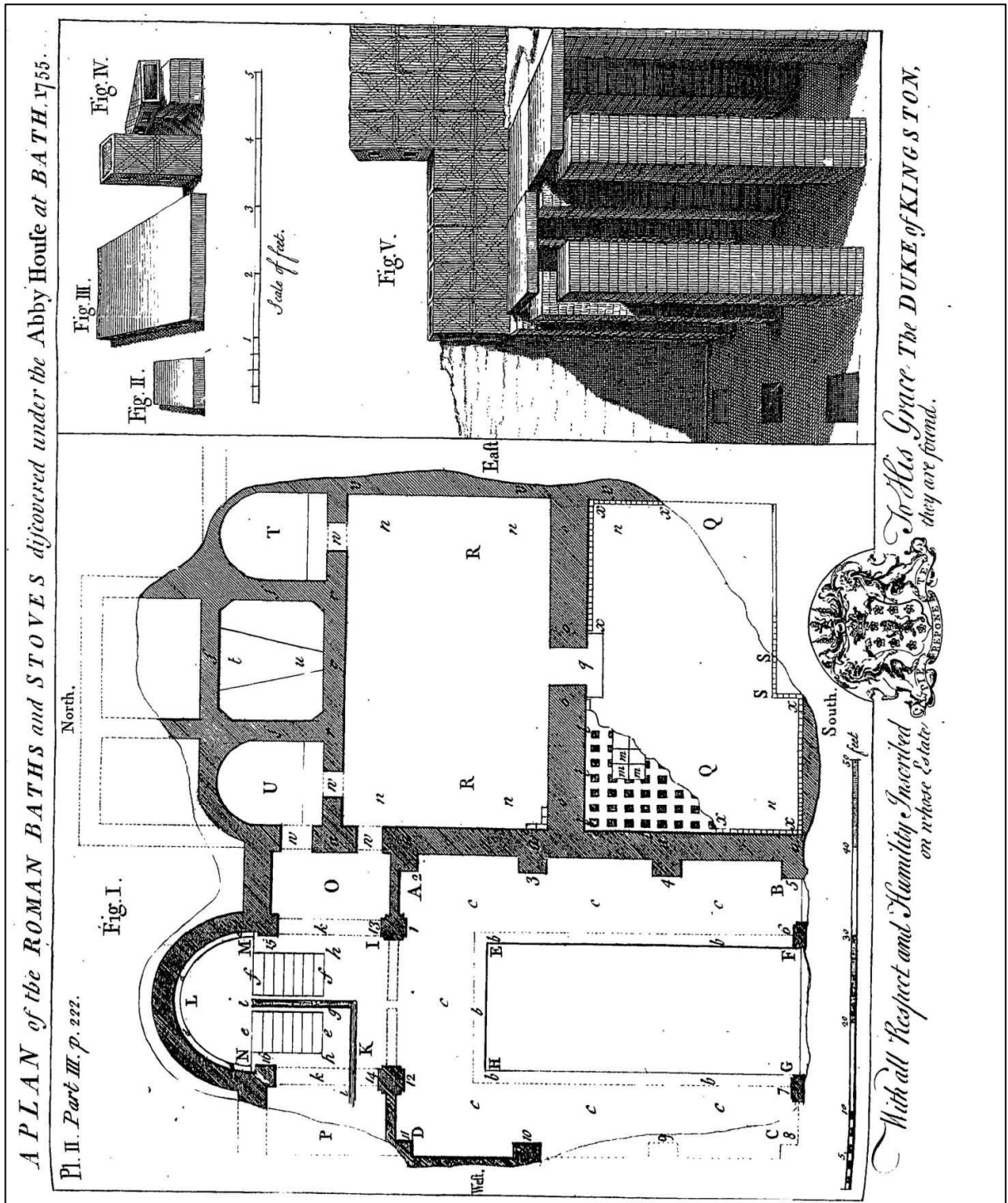


FIGURE 1 Plan of the Roman baths discovered at Bath in 1755 (Lucas 1756, vol. 3, Pl. II). (Digital image courtesy of the British Library, with permission).

The Manner of Roman hypocausts.

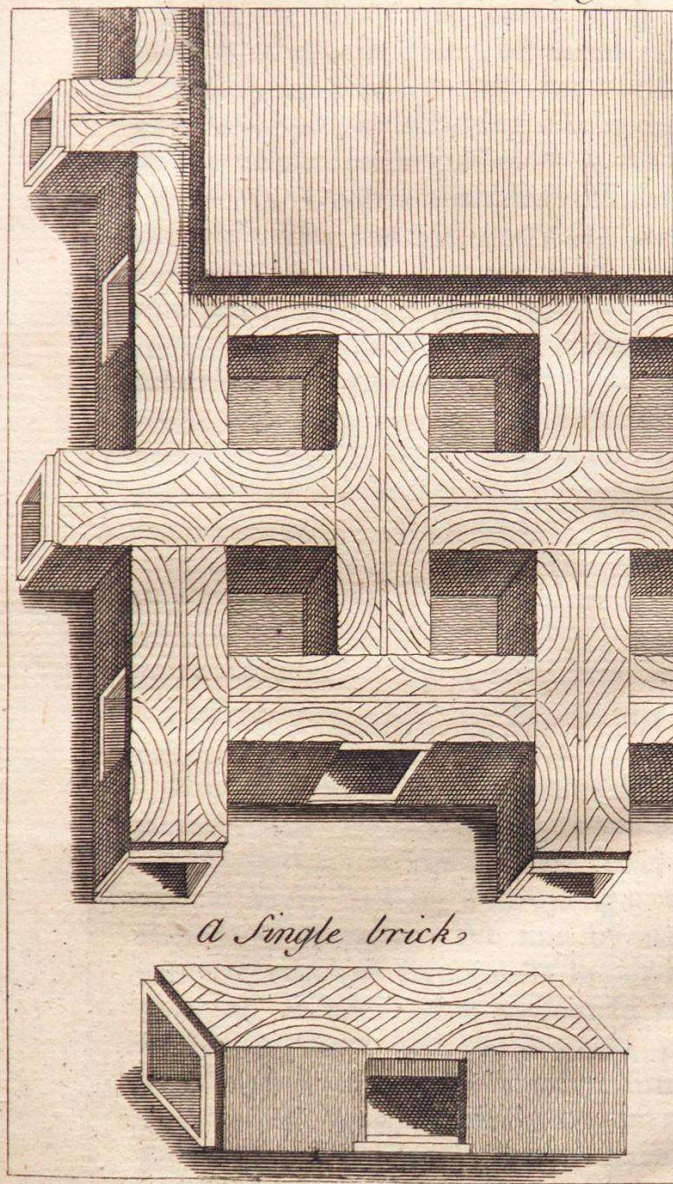


FIGURE 2 William Stukeley's reconstruction of the hypocaust heating system (Stukeley 1734, 114, Pl. 116). (Digital image from Wikimedia Commons).

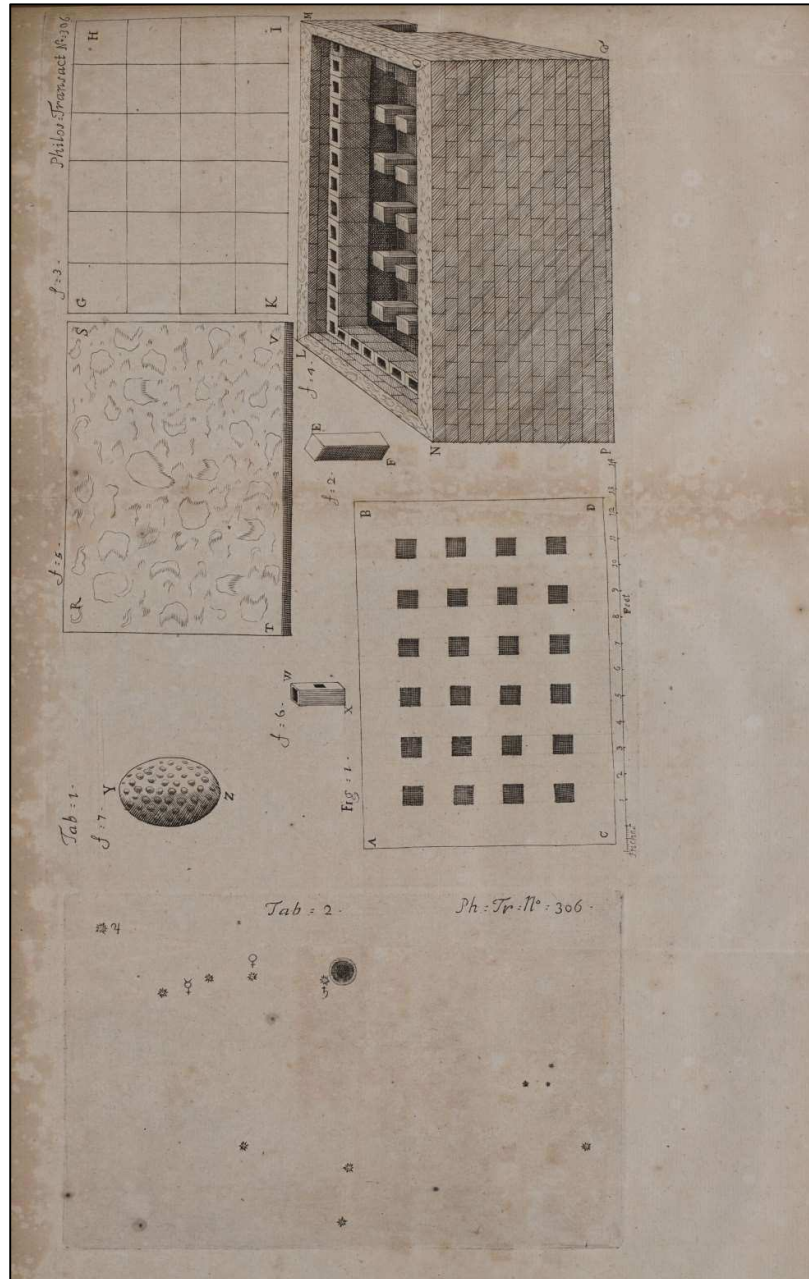


FIGURE 3 The 'Roman Sudatory, or Hypocaustum, found at Wroxeter in Shropshire' (Lyster 1706-7, Figs 1-6). (Digital image courtesy of the Royal Society, with permission).

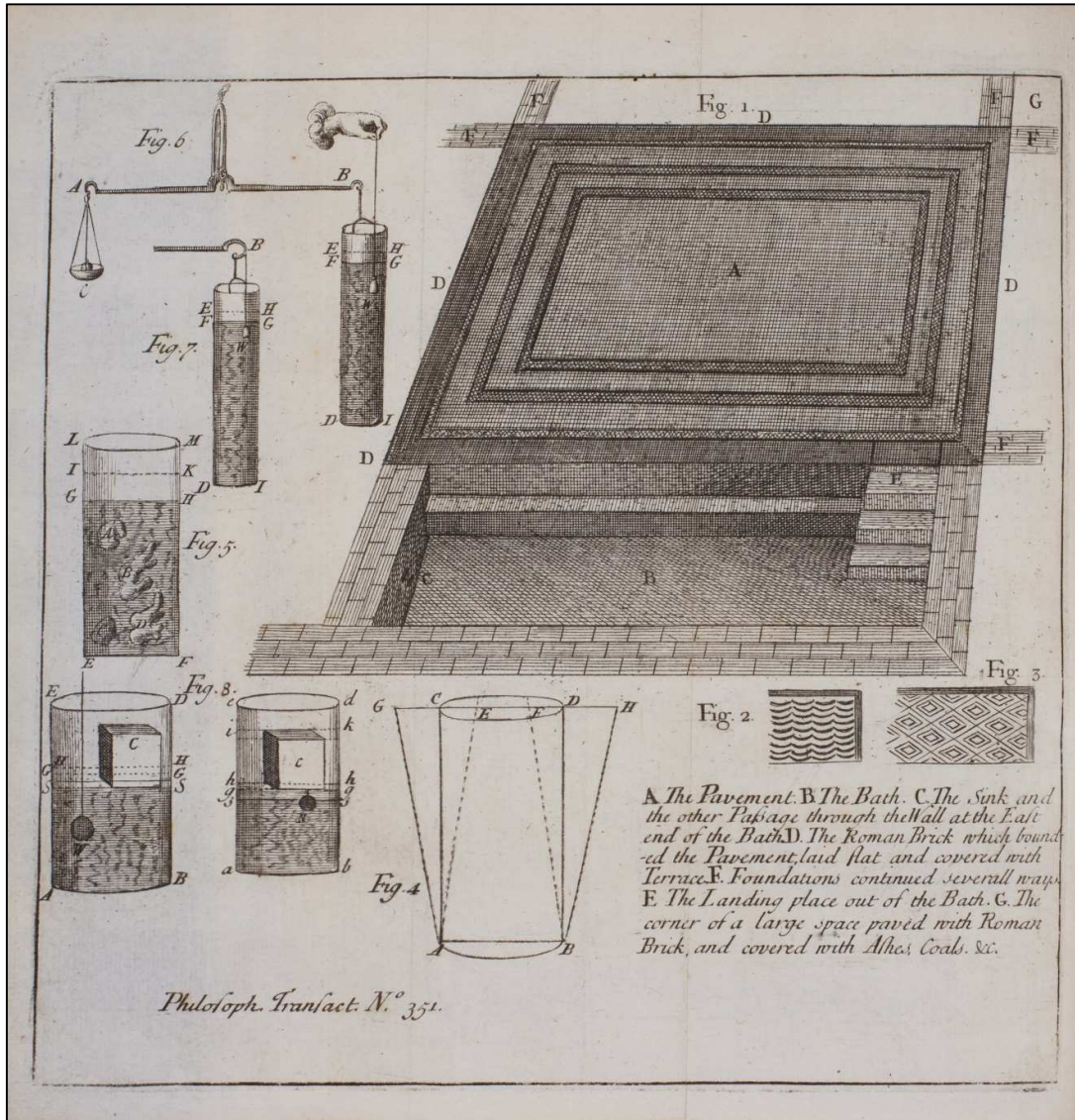


FIGURE 4 A mosaic floor and a plunge-bath discovered at Eastbourne (East Sussex) in 1712 (Tabor 1717, plate opposite to page 563). (Digital image courtesy of the Royal Society, with permission).

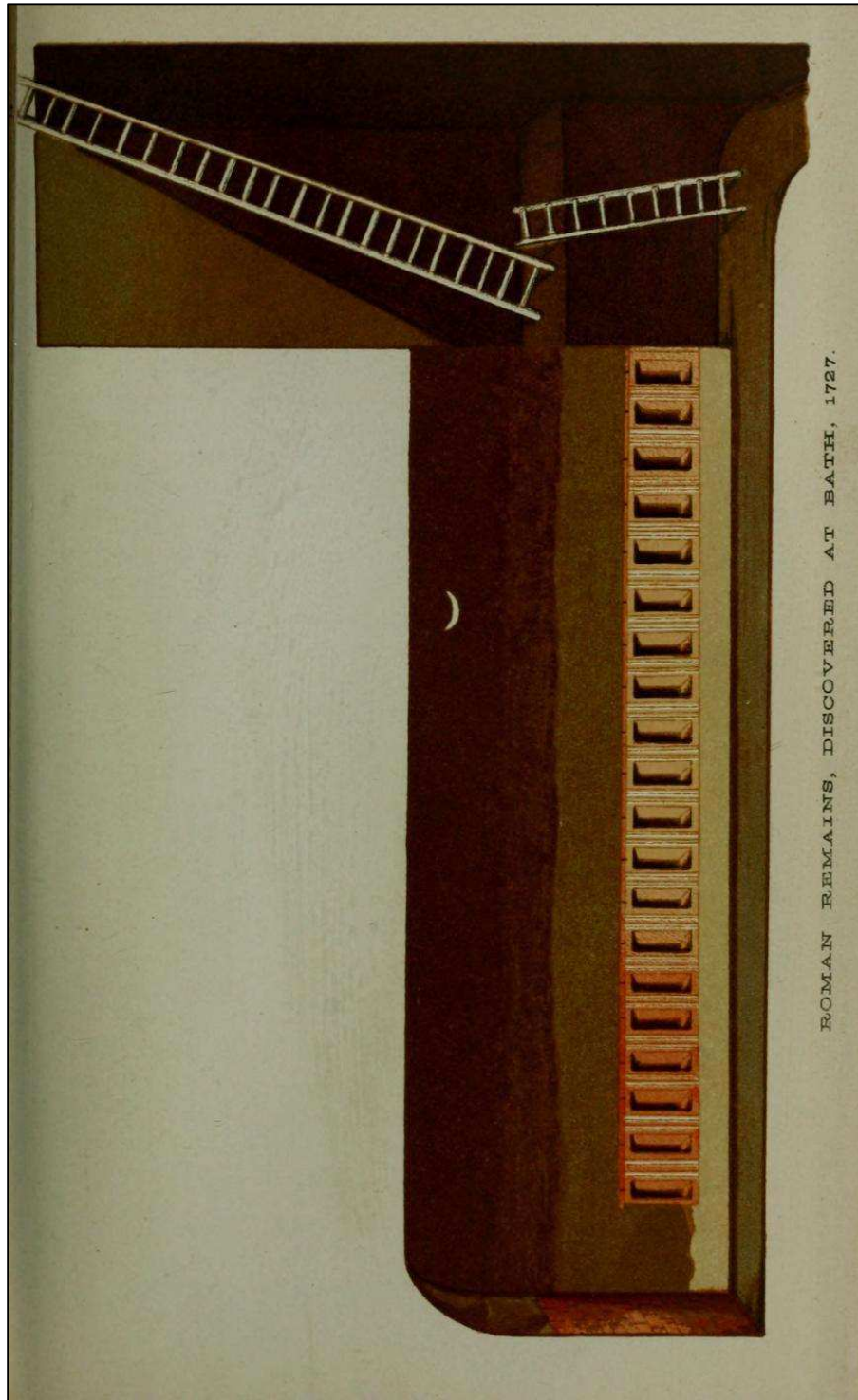


FIGURE 5 Depiction of the 'subterranean antient Stoves' discovered in July 1727 during the laying of a sewer near the junction between Bath Street and Stall Street in Bath by Bernard Lens III (Green 1890, plate opposite to page 118) (Digital image courtesy of the Natural History Museum Library, with permission).

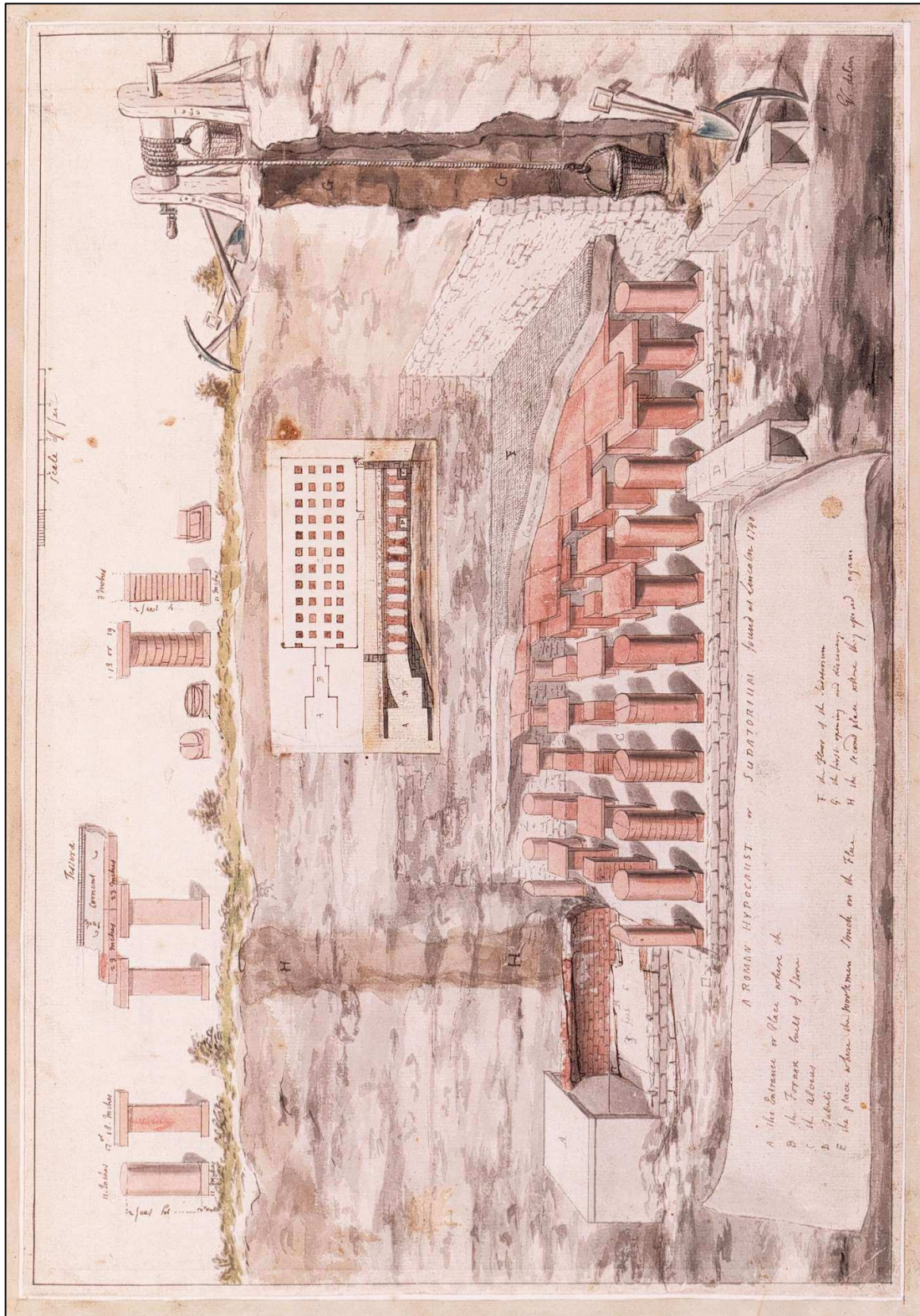


FIGURE 6 Excavations of a Hypocaust at Lincoln by George Vertue (Society of Antiquaries of London). (Digital image courtesy of the Society of Antiquaries of London, with permission).

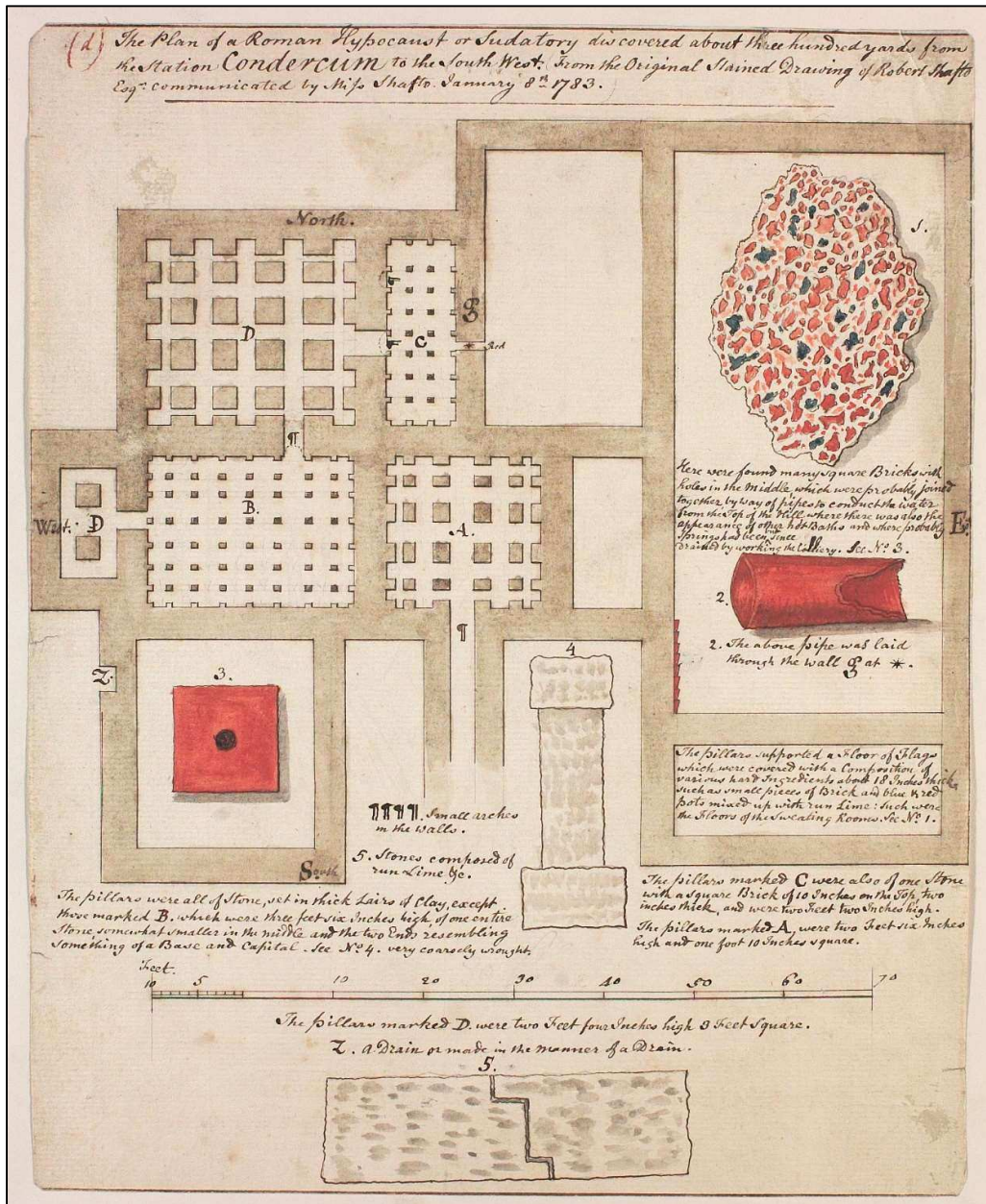


FIGURE 7 The 'Hypocaust or Sudatory' discovered near the Roman fort at Benwell (Condercum) (Society of Antiquaries of London, *Britannia Romana* 89.4). (Digital image courtesy of the Society of Antiquaries of London, with permission).

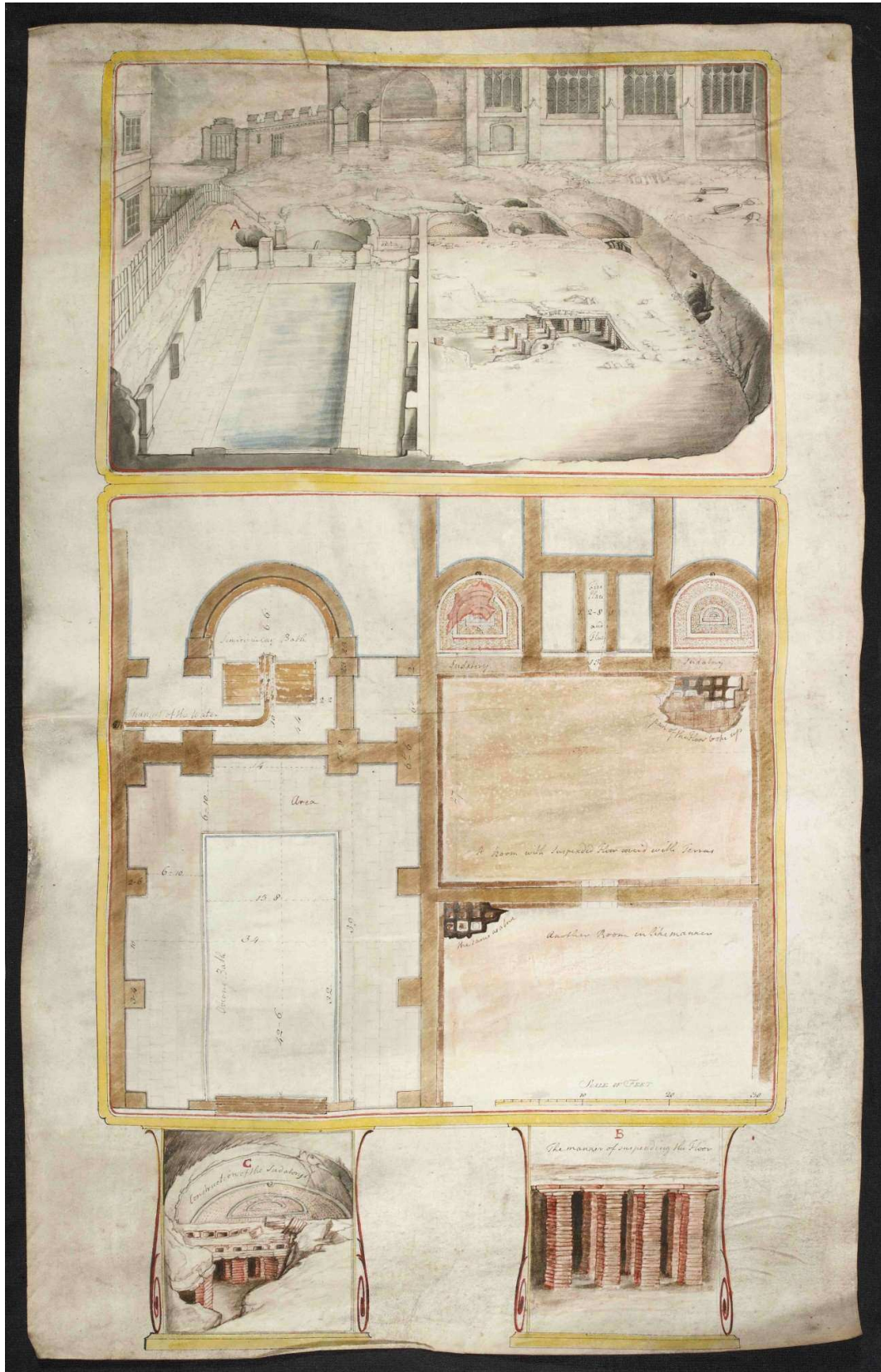
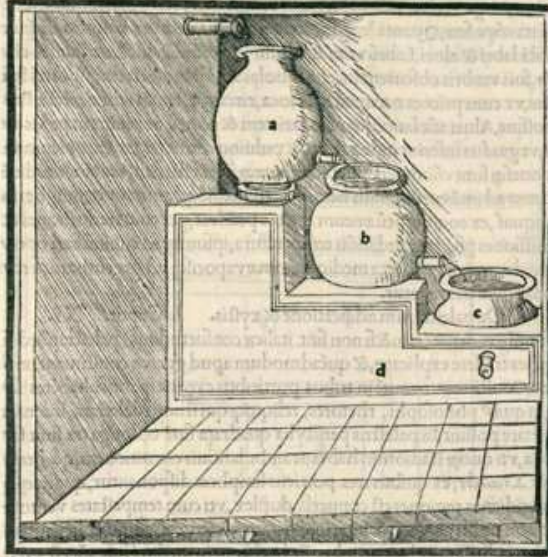


FIGURE 8 The Roman baths at Bath by William Hoare (British Library, Add MS 21577 B (p. 132)). (Digital image courtesy of the British Library, with permission).

dum, vti caldaria muliebria viriliaq; coniuncta, & in iisdem regionib; fiat collocata. Sic enim efficitur, vt in vasaria ex hypocausto cois sit vltus conũ vtrifq;. Avena supra hypocaustũ tria sunt cõponenda, vnũ caldarium, alterum tepidarium, tertiu frigidarium, & ita collocanda, vti ex tepidario í caldarium, quantũ aque caldæ exierit, ifluat. De frigidario in tepidarium ad eũdem modum, restudinetq; alueologẽ ex cõmuni hypocausti calefacientẽ,



a. frigidariũ
b. tepidariũ
c. caldarium
d. hypocaustum.

Suspensuræ caldarium ita sunt faciendæ, vti primum sesquipedalib; tegulis solũ sternatur inclinatu ad hypocaustum, vti pila cũ mitatur, non possit intro resistere, sed rursus redeat ad pfurnium, ipsa per se ita flama facilius puagabitur sub suspensione, supraq; laterculis besalibus pila struantur ita dispositæ, vti bipedales tegule possint supra esse collocatæ, Altitudinẽ autẽ pila habeat pedũ duos, eaq; struant argilla cũ capillo subacta, supraq; collocetur tegule bipedales, quæ sustineant pauimentum, Cõcamerationes vero si ex structura factæ fuerint, erunt vtiliores. Sn autẽ contignationes fuerint, hõglinũ opus subiiciatur, Sed hoc ita erit faciendũ, Regulæ ferreæ aut arcus fiant, eaq; vncinis ferreis ad contignationẽ suspendatur q̄reberrimis, eaq; regulæ siue arcus ita disponantur, vt tegule sine marginibus sedere in

FIGURE 10 Vitruvius' *aenea* according to Fra Giocondo (1511, 54, unnumbered plate). (Image downloaded from the Architectura platform at http://architectura.cesr.univ-tours.fr/Traite/Notice/CESR_2994.asp?param=en; Digital image courtesy of CESR Centre d' Études Supérieures de la Renaissance, Tours, with permission).

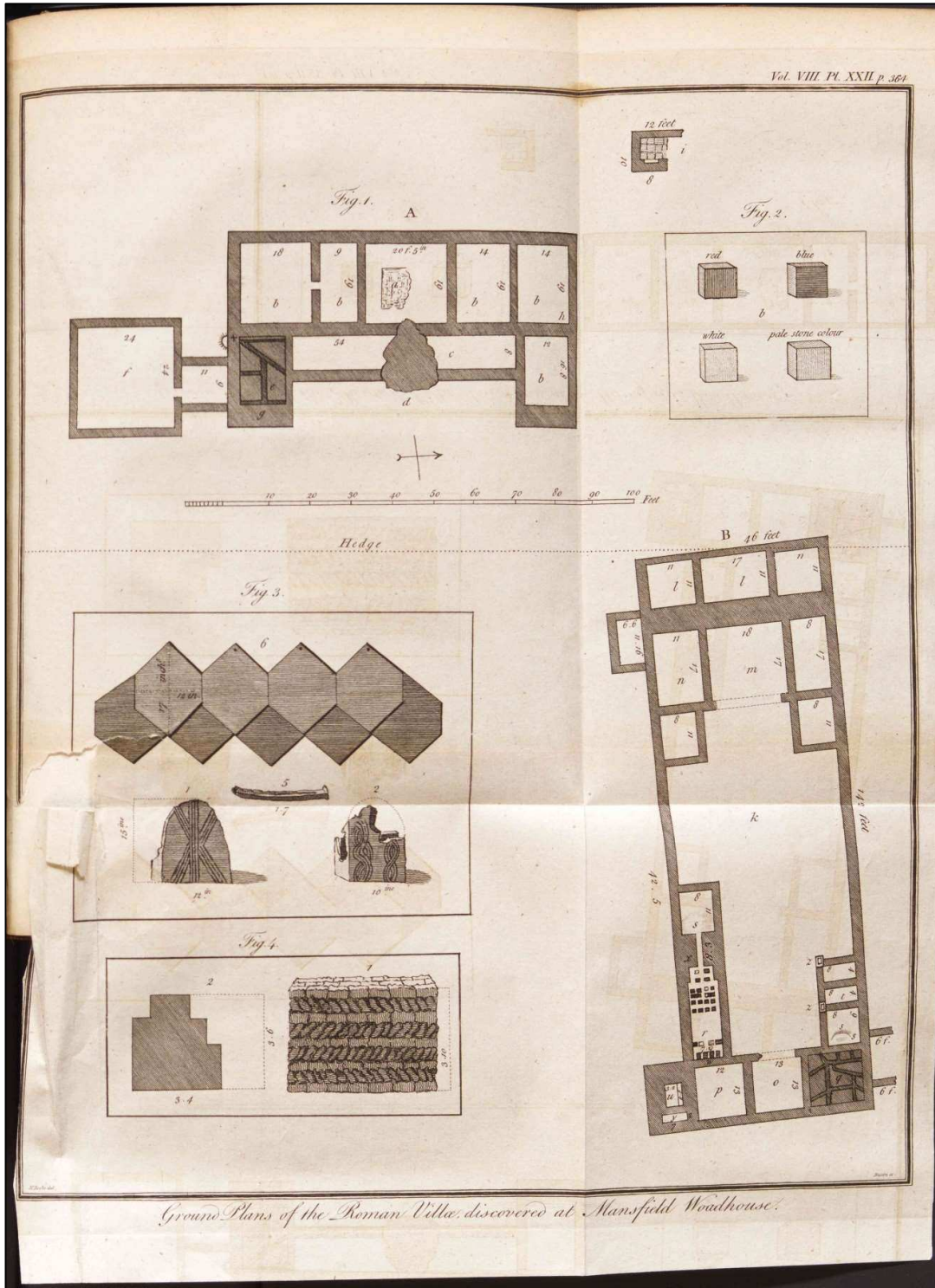


FIGURE 12 The Roman villa at Mansfield Woodhouse (Notts) (Rooke 1787, plate opposite to page 364). (Reproduced by permission of the Librarian, University of Leicester).

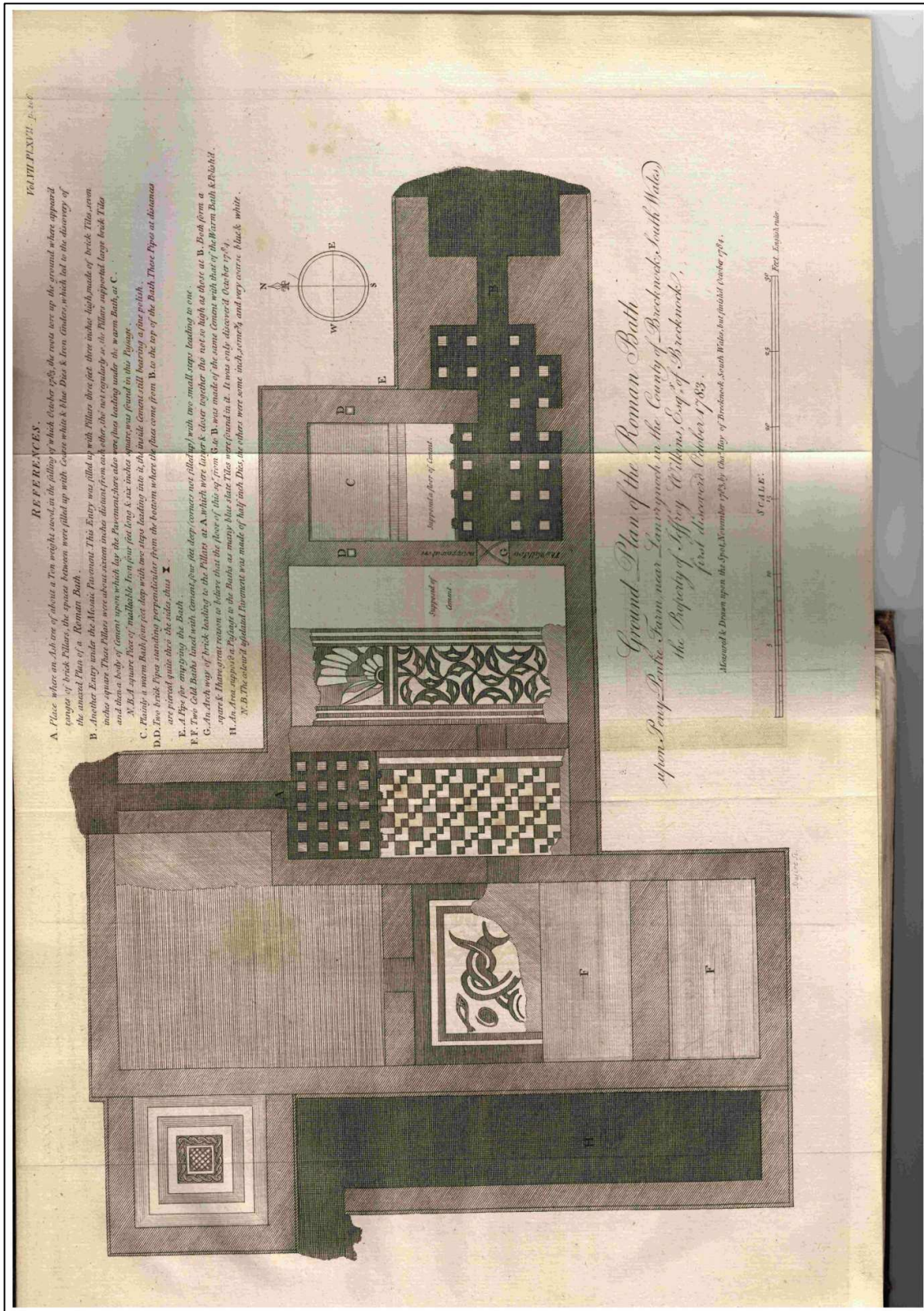


FIGURE 13 The bath-house excavated in 1783 at Maesderwen (Brecknock) (Charles Hay 1785, plate opposite to page 206). (Reproduced by permission of the Librarian, University of Leicester).

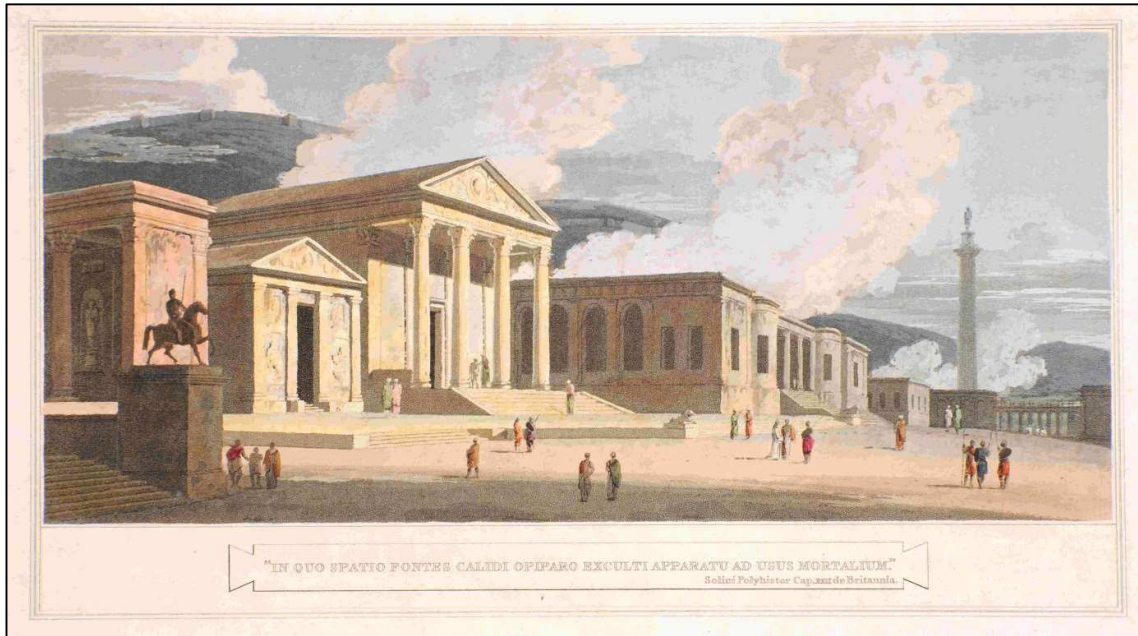


FIGURE 14 Reconstruction of the temple at Bath by Lysons (1813–17, vol. 1, part II, frontispiece). (Photo: Colin Brooks; image courtesy of the Special Collections of the University of Leicester).



FIGURE 15 The rectangular plunge pool in the eighteenth-century gardens at Painswick (Glos.). (Photo: Non Morris, with permission).