and 'wholeness'. One of the most stimulating parts of her argument is the suggestion that in the ancient world anatomical votives could have been interpreted as something akin to ritual prostheses, in that they symbolise an attempt to use a physical object to render the body whole and healthy and to achieve an ideal normality.

The afterword, written by Hughes, evocatively captures more of the contemporary resonances of votive ritual by pointing to the rise in anatomical imagery in modern art. She poses a number of interesting questions about the intersections between art, history, religion and science that exist in approaches to anatomical votives, and provides some thoughts on the directions in which the study of these objects might go.

As befits a project related to the sensory experience of objects, all the papers are well illustrated, although in black and white. The bibliography is extensive, providing an excellent jumping-off point for research into these objects, which in the past have not always been easily accessible, even to the specialist scholar. There is also a good index, which makes tracing continuities across the papers much easier.

The volume sets out with an ambitious intention to reconsider ancient anatomical votives in the light of a range of new approaches. Although not all the papers are totally successful in escaping from older interpretations of votive practice, the volume as a whole is a significant advancement in the field. The scope of the volume is relatively unrestricted in terms of chronology and geography, but where previous scholarship would have found bland continuity, the contributors here reveal dramatic variety, by considering how votive ritual impacted on the lives of those who dedicated them.

*University of Manchester* STUART MCKIE
stuart.mckie@manchester.ac.uk

## AN EXCAVATION REPORT ONLINE

OPITZ (R.), MOGETTA (M.), TERRENATO (N.) (edd.) *A Mid-Republican House from Gabii*. Ann Arbor: University of Michigan Press, 2016. Online resource, DOI: 10.3998/mpub.9231782, US$150. ISBN: 978-0-472-99900-2.
doi:10.1017/S0009840X17002517

The challenge of publishing archaeological research is a significant one. Restudying old excavations has given a strong sense of how much we want to know but now cannot recover. Archaeology is a fundamentally destructive exercise; less remains when one stops than was there when one started. Moreover, our range of interests and our capacity to extract meaning have increased over time. The archaeologists of the past were not all Schliemann-like adventurers, destroying and plundering as they went, but they could not have dreamt of what we can do – or hope to do – with the tiniest of evidence from the most unpromising material.

In some ways it is therefore fortunate that with the advent of laptops on site and digital cameras, every single stage of an excavation can now be recorded in imperishable detail. Subject to no catastrophic failures, and the long-term sustainability of digital resources, excavations can be recorded more or less eternally and with practically no space constraints. In and of itself, this is an evident bonus, as anyone who has to find room for an institutional repository of old documents, or who has had the sickening experience of discovering that the critical notebooks were left behind or lost, will attest. It has

transformed post-excavation work. It is now not uncommon to speak of the born digital excavation, and I. Hodder's notion of interpretation at the trowel's edge is brought closer by the value given to observation in the field.

It is no surprise, therefore, that one of the most exciting excavations currently under way in Italy, N. Terrenato's project at Gabii, has made its own entry into the digital world with an online resource hosted at Michigan. This review will attempt first to assess the resource as it stands, then the site and finally whether the combination of digital technology and interpretation adds value.

The basis of the process is the use of a customised ARK database, familiar also from E. Fentress' Villa Magna excavation (http://archaeologydata.brown.edu/villamagna/). In addition, the excavators use Unity3D software to assemble data into 3D models. The workflow rapidly provides information for the excavators and is at the heart of the website. The excavators argue that this is innovatory: 'an explicit and radical move toward an object-centric archaeology led by material culture'. Arriving at the Michigan site came through an important attempt to involve a wider specialist audience in the 'Gabii goes Digital' project (https://gabii.cast.uark.edu/gabiigoesdigital/index.html), which allowed for an interactive discussion.

The website encourages a movement between three distinct areas: the 3D model, the text and the underlying detailed information of each context. The 3D model is now accessible without downloading additional software. It is in my experience quite slow to load, but improving. The model, which has the walls and floor areas as a base, the basic geometric reconstruction on top, all under an alarmingly grey sky, allows one to manipulate the house as a whole or to enter specific areas of the house. Symbols indicate where further information is available, and this takes one to a pop-up window with photographs, additional material and a link to ARK.

As one scrolls down into the text, the model stays visible, and clicking on highlighted contexts brings up the position on the 3D model. As a consequence, one always knows exactly where one is in the house, and it is possible to move from narrative to 3D map to detailed context material fairly seamlessly. This is an impressive and helpfully interactive approach and would make the website a useful introduction to archaeology generally as well as to the specifics of Gabii.

The structure of the site includes what is called an introduction (and sometimes the first volume), with project history and methodology; and then a contents page, which is broken down into an overall story and sections on architectural context, phases, relationship to wider architectural trends, artefacts and ecofacts, a conclusion, and then the details, which allows one to access the underlying information including a mass of photographs, right down to the individual context sheets.

One criticism one could make is that the tone of the website is uneven, and it is by no means clear for whom it is really intended. It might equally be said on the other side that websites permit multiple users to access the material in multiple ways. However, it seems to me that there may still be work to be done on separating these levels of access – so the fact that the introductory material contains sentences such as 'In considering the archaeobotanical samples, we observe that the density of construction debris present in the strata excavated to date greatly reduces the recovery rate for ecofacts' or 'At the SU level, MNI are calculated, and the approximate age and the gender of each individual identified is assessed where possible' suggests that the general reader is not the main focus.

Elsewhere, the tone is more novelistic: 'What happened in the house when it was in its first, simplest form? The usual things, we must suppose. People lived there, cooked and ate, argued and misplaced things, swept and trod down the floors.' Some of these phrases link to the archaeological evidence – so the things misplaced turn out to be coins. Yet oddly, when we reach the coins, we cannot take the next step and see them, without

searching or manually going to another section, and then there is no way back. Navigation across the site when I used it still needs some work to be seamless – most notably and frustratingly, bibliographical references are not hyperlinks, so, if one wants to check a reference, one has either to have two webpages open simultaneously or one risks losing one's place.

There are further very detailed essays by L. Motta on the archaeobotanical and faunal remains and by A.F. Ferrandes on the pottery, which is oddly less well represented in the photographs, and the coins (well illustrated). Links to these sections are made from the navigation bar 'All contents', but they are still difficult to read as long text blocks. There is finally a section called 'apologia', which with admirable honesty admits various inconsistencies over the period of excavation.

One key area where the excavators have clearly had to change their position regularly is over chronology. Three changes in the way this has been recorded are reported, reflecting the problem of what the excavators call 'residuality'; that is, material from another period caught up in a fill. In the end, the excavators have ended up assigning a date and explaining it in an observations box.

The level of detail then is extraordinary; and there is no doubt that this offers opportunities to answer in future questions about this excavation which we cannot answer for others and dearly wish we could. Assuming Michigan maintain the whole site, in a hundred years we can discover who dug what when, what the weather was like, what they saw, how they interpreted it and what their spelling was like. On a site with a complex building history, this – or at least some of it – is valuable. It is the passage backwards and forwards between detail and large-scale interpretation that remains difficult.

The introduction identifies what it calls the big questions that Gabii raises: 'the development of urbanism in the specific context of central Italy, the ongoing relationships with peer cities in Latium (including Rome), the interactions with the farms and farmers working and living in the surrounding countryside, the creation of public space and adoption of fashions in domestic architecture.' Gabii is indeed a rather peculiar site. First, it offers evidence for urbanisation in the middle Republic, which is rare; second, it suffers an odd and early decline; third, it is a surprisingly empty city.

The specific house which is explored in what is promised to be the first part of an expanding resource, the Tincu house (named after a supporter of the project), is not the most famous of the Gabii houses – the so-called Regia remains to be fully published. But the Tincu house has plenty to intrigue one.

Thanks to British School at Rome magnetometry, we already knew that Gabii had a very interesting configuration with a road running north-east to south-west, which is part of the system connecting Rome and Praeneste and Tibur. Perpendicular to the road are a number of city blocks, and the Tincu house is in one of these. As elsewhere at Gabii, there is evidence of an archaic phase, but here it is hard to discern; there may have been *suggrundaria* here suggesting a habitation phase. This phase is obliterated in the fifth century by construction that is probably related to the new town plan, but the actual development of the house is not before the early third century BC. The construction is prepared with the creation of a floor and also drainage channels for water run-off from the building's roof. The house starts as an open courtyard with a building $5 \times 17.5$ m divided into four rooms and developed over time with more rooms and changes to the walls.

Its later history however is clearly odd – it remains looking like a house from the outside, but behind the facade the rooms and the courtyard are refashioned in the second and the early first centuries BC to connect to another building whose function is unclear, but assumed to be public, so that the old house becomes a sort of annex with storage or administrative functions. It then appears to be used in the first century BC for refuse deposition

associated with quarrying, before being more definitively abandoned, although the suggestion is made that the facade is maintained.

Gabii's problematic history stems entirely from the difficulty of squaring its position and some of its architecture with substantial areas of abandonment and apparent decline. Roman historians have yet to come to terms with the consequences of the steady erosion of our models of ancient urban life. First we discovered that not all colonies followed a Rome-driven pattern, and maybe none. Increasingly we find monumental centres and substantial wall circuits, but little else. Now we have a site which reminds us more of the half built and abandoned concrete structures of failed building projects, and abandoned industrial parks, than the neat and orderly pictures we used to have. It is no longer just the problem of ordure and challenging traffic conditions; we have to conjure up a different model of the ancient city.

That leads me then to the final awkward disjunction. Gabii's 3D models look too clean, too neat. Moments of determined urban planning are followed by long periods of what we would regard as mild chaos. The assumption of the preservation of facades is an attractive idea, but it has relatively little evidential base. We need a new language to describe what is happening at Gabii, and oddly the innovative nature of the technical interface is as yet a step back or sideways, not forwards.

Yet any criticism needs to be tempered. This is the beginning of a very special attempt to do something different with archaeology, and a welcome move away from thunderous (and sometimes unaffordable) monographs filled with pottery profiles. It is not yet the open-access, multi-layered portal which welcomes the innocent layperson, informs the expert and protects data for the long term – but it is a fair way down the road, and the admirable openness of the team suggests it will be a process of steady amelioration. This then is a situation report, not a review; a good start with much excitement to follow.

*University of St Andrews* CHRISTOPHER SMITH
cjs6@st-andrews.ac.uk

## BUILDINGS ON THE PALATINE HILL

PENSABENE (P.) *Scavi del Palatino 2. Culti, architettura e decorazioni*. In due volumi. (Studi Miscellanei 39.) Pp. 1470, ills, pls. Rome: 'L'Erma' di Bretschneider, 2017. Paper, €850. ISBN: 978-88-913-0971-6.

doi:10.1017/S0009840X17002530

This enormous volume represents (somewhat confusingly) the third instalment of P.'s work on the Palatine hill, begun in the late 1970s. The first part was published as P. Pensabene and S. Falzone (edd.), *Scavi del Palatino I: l'area sud-occidentale del Palatino tra età protostorica e il IV secolo a. C. Scavi e materiali della struttura ipogea sotto la cella del tempio della Vittoria* (2001) (reviewed by C. Smith, *CR* 53 [2003], 228–9). Volume 13 of *Scienze dell'Antichità* (2006) was largely given over to the excavations around the sanctuary of Magna Mater. Now we have two volumes, the first on the sanctuary again, and the second on the House of the Griffins, the House of Octavian/Augustus and the Temple of Apollo. They are in every sense monumental and will be indispensable.

Volume 1 begins in the vicinity of the hut of Romulus. Part 1, Chapter 1 starts with the literary sources, listing the key monuments we know to have been in the vicinity. However, P. and his team take a broad view of the revisiting of this site, and although there are