

## Drawing on the past

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**Drawing on the past:****Palladio, his precursors and knowledge of ancient architecture c. 1550**

by David Hemsoll

In his *Quattro libri dell'architettura* (1570), Andrea Palladio (1508–80) made a series of claims regarding the various antiquities illustrated there, asserting that he had personally measured and drawn many of them. Enlarging, in the treatise's general preface, on a comment made earlier in his short book on Rome's antiquities (1554),<sup>1</sup> he recalled how he had seen with his 'own eyes', and measured with his 'own hands', the surviving fragments of numerous ancient buildings on his various visits to Rome, as well as in other locations.<sup>2</sup> Then, in the introduction to Book One, he described how he had at first concerned himself with minutely measuring all the 'parts' of particular buildings, before making repeated visits to various regions of Italy and elsewhere, so as to understand the 'totality' of buildings from their parts and 'commit them to drawings'.<sup>3</sup>

Subsequently, in the introduction to his Book Four, on the subject of ancient temples, he further elaborated on these pronouncements by declaring that he had even examined the foundations of buildings only partially standing so as to reconstruct their original layouts, and that he had carefully measured the ornamental details of all buildings with 'utmost care', and that in recording them he had not included 'anything' of his own.<sup>4</sup>

Palladio's devotion to the study of the antique was certainly exceptional, as is abundantly clear not only from the plates of Book Four, but also from the survival of a remarkable number of autograph drawings of antiquities that are held mainly in the R. I. B. A. collection in London and the Palladio Museum in Vicenza.<sup>5</sup> They include much material produced during the time he had spent in Rome, and they make up a substantial proportion of all the drawings by him that happen to have survived. His trips to Rome, as listed by his biographer Paolo Gualdo (1553–1621) and partly confirmed by documentary evidence,<sup>6</sup> were initiated with three in the company of his one-time mentor Giangiorgio Trissino (1478–1550), which were in 1541, from autumn 1545 to the spring of 1546, and for an additional eight months from the autumn of 1546, when Palladio was reportedly making drawings of a great many ancient buildings. They were then followed by a further visit in November–December 1549, when he revisited and again drew many antiquities including bath complexes, and a final trip for a spell in 1554, on the occasion of the printing of his early books, when he was accompanied by unspecified 'Venetian gentleman friends', and various buildings were again re-inspected and re-measured. The drawings Palladio produced whilst there and at other times not only relate to the *Quattro libri* plates of ancient temples but also encompass plentiful depictions of other structures and compounds, such as bath complexes as well as arches, theatres and amphitheatres, which would have formed the subjects of further books for the treatise had these been completed.<sup>7</sup>

When surveying ancient buildings architects are unlikely to have been acting on their own. They would expect for on-site investigations to rely on the help of others, who could hold one end of a measuring tape, or, just as crucially, hoist the architect (or an associate) up to a higher level so as to measure and record a capital or entablature, or dig pits or trenches so as to expose features that had become buried. Just such assistance is mentioned, in fact, by the French architect Philibert De l'Orme (1514–70), who had been in Rome as a young man in 1533–36, and had given time to measuring ancient buildings which, as he later recounted, he 'did with great labour, costs and expenses' not only 'in ladders and ropes, but also in the excavating of foundations', and that he was unable to do this work without a 'number of men' following him, some to earn a couple of coins a day, and 'others to learn, for they were workmen, carpenters, stone carvers, sculptors and the like' wishing to know what he was doing and 'take advantage of the fruit' of what he had discovered.<sup>8</sup>

However Palladio seems seldom – if ever – to have followed Philibert's example and gone to such effort and expense, the reason being that he appears to have espoused a very different way of working. This, as we shall be describing, was one that involved much less assistance from others, and – despite all his claims to the contrary – required relatively little on-site activity. Palladio's *modus operandi*, it appears, was to set much greater store on the achievements of earlier practitioners, since his researches were perhaps never pioneering surveys of individual monuments or sites,<sup>9</sup> and they were almost always preceded by the initiatives and explorations of others that had resulted in the creation of previous drawings. Such drawings, in many cases, were broadly reliable records of buildings and their constituent parts, and could be copied by subsequent draughtsmen – or used by new investigators to provide starting points for yet more accurate depictions or more extensive surveys. Hence, for later explorers such as Palladio, who might otherwise be faced with structures of daunting scale or in dangerous condition, or with sites that were partly covered over or otherwise inaccessible, they often provided a ready basis for improving on earlier conclusions, and, at the same time, they saved an enormous amount of work, which could now be focused on identifying what was securely established, taking selective new measurements, carefully examining those areas hitherto ignored or less well understood, and making alterations or additions to earlier plans as and where desired. If more than one previous survey was available, then there was also scope for comparing them and deciding on their relative merits, and perhaps combining selective elements together. This appears to have been a practice long adopted by architects based in Rome, and it was almost certainly the way of working Palladio usually followed, which is what would have made it possible for him to cover so many ancient buildings and sites in such a limited amount of time. His claims, therefore, about inspecting and measuring these buildings may in some sense have been true, but only if the immense amount of help gained from past endeavours is also ignored. As regards these earlier achievements, a good many drawn records of them dating from the first half of the sixteenth century, and produced mainly in the circles of Antonio da Sangallo the Younger (1484–1546), Baldassare Peruzzi (1481–1536) and their respective followers, still survive in the Uffizi and elsewhere,<sup>10</sup> and it would often be drawings similar to these that Palladio must have had at his disposal.

It is now widely acknowledged that many of Palladio's early depictions of antiquities may well have been derived from the works of others;<sup>11</sup> but, in line with Palladio's *Quattro libri* claims, it is still broadly held that most of his later drawings were based entirely on his own on-site investigations, even if also resulting from a stage-by-stage process of clarification and elaboration from initial site sketches to final reconstructions.<sup>12</sup> Yet over the course of his career he may not have changed his

practice nearly as much as might be imagined. Thus, Palladio may have produced drawings, especially early on, closely modelled on previous representations in the belief that these were faithful records of particular monuments, and could be relied on as such; and then, at a later point, he would continue to make liberal use of earlier material, although rarely for duplication and much more frequently – as it will be argued here – to provide a basis for drawings of his own which could also incorporate any changes judged necessary. As regards these later studies, however, the extent of their dependency on the achievements of his precursors has never been satisfactorily established – and their place within the wider world of archaeological inquiry in mid-sixteenth-century Rome has never been properly understood.

The fact remains, however, that it is often difficult to match a specific drawing by Palladio, or an illustration from his *Quattro libri*, with an image produced by an earlier architect, but this, I argue, is in good part the result of so much material being now lost. It is true that the surviving architectural drawings by Palladio amount to around 300 sheets all told, which is far in excess of the extant outputs of most other architects of the period, and that the drawings by him of antiquities account for as many as around 215 of them.<sup>13</sup> Yet this number is still minuscule compared with the vast numbers he must have originally produced, and the same is true of the extant drawings of antiquities by other sixteenth-century architects. Thus the 150-plus surviving sheets of drawings by Sangallo and the 117 by Peruzzi probably represent just a few percent of their original outputs;<sup>14</sup> while the drawings after the antique by the pioneering figures identified by Giorgio Vasari as having been very active in this field, namely Fra' Giocondo (c. 1430/34–1515), Bramante (1444–1514), Giovanni Maria Falconetto (c. 1468–1534/35), Girolamo Genga (1476–1551), Michele Sanmicheli (1489–1559), and Giulio Romano (c. 1499–1546),<sup>15</sup> have vanished almost entirely. In respect to Sanmicheli, such losses are especially frustrating, since he was based, like Falconetto, in the Veneto and he may have been personally acquainted with Palladio, who would thus have known his drawings particularly well, this being a matter to which we shall be returning later on. As for Palladio's drawings of antiquities, the sheer quantity of those he originally produced – which perhaps ran into the thousands – is implied by the highly fragmentary and uneven coverage of what now remains. For example, the 25 temples or presumed temples that are illustrated in the 97 multi-image plates of the treatise's Book Four are the subjects of a total of just 50 sheets, with several buildings not covered at all, and with very many of the individual illustrations belonging to the 97 plates having no direct equivalents in surviving drawings. In fact, there are remarkably few existing drawings that relate even remotely to the *Quattro libri* plates. Other notable gaps include almost all the drawings recording his first direct encounters with ancient buildings, those documenting his subsequent reflections and re-evaluations, and the vast majority of the studies copied or jotted down from the drawings of others. Almost entirely lost, too, are the drawings and other images by earlier practitioners that Palladio probably owned,<sup>16</sup> which would have provided him with additional reference material.<sup>17</sup>

As regards the material that still does survive, therefore, it may be that attempts to match a Palladio drawing with one produced previously are usually fruitless, but it is often the case – as we shall shortly be seeing – that it can be related to other surviving drawings sufficiently well for important conclusions to be reached.<sup>18</sup> These other drawings may date from before, during or even after Palladio's visits to Rome in the 1540s but all of them are dependent on material that also informed Palladio himself, and so can offer new insight into his ways of working. They also provide further understanding of the broad development of archaeological knowledge about particular buildings or

complexes, and thus allow Palladio's place within this development to be better evaluated, and the extent of his own achievements to be better quantified. What will also begin to emerge, however, is that he became so reliant on earlier material, especially in preparation for the publication of the *Quattro libri* and related ventures, that he actually disregarded – in spite of his claims to the contrary – a building's physical realities. It will become clear, too, that creative invention, and stylistic and compositional presumption, played a far larger role in his vision of the ancient past than he was willing to acknowledge, or others subsequently assessing his achievements may have expected or realised.<sup>19</sup>

What follows will explore the approaches Palladio adopted towards the representation of antiquity, evaluating his accomplishments above all in relation to earlier images, by assessing his dependency on them but also examining ways in which he adapted them to an all-encompassing vision of the classical past. It will concentrate mainly on selected monuments that Palladio chose to record that are especially illustrative of the broader patterns of his representational strategy. A first task will be to consider some of Palladio's drawings of temples, and his illustrations of them in Book Four of his *Quattro libri*, particularly in relation to his statements that he had based his drawings upon site observations, and to the practices he followed in translating material collected in Rome into his finally-published reconstructions. Attention will then turn to Palladio's remarkably comprehensive and authoritative coverage of Rome's ancient bath complexes, which he had also intended for publication, so as, again, to examine his claims and methods, and also to determine how he actually produced his various drawings, and assess the reliability of both his plans and his elevational reconstructions. This study will then conclude with reflections on Palladio's representational practices more generally, especially as regards his copying and adaptation of drawings produced previously; but it will also consider his seemingly more complex relationship with his Rome-based contemporary Pirro Ligorio (1512/13–83), the one architect to produce drawings which, very unusually, have been specifically connected with Palladio's, considering what is normally surmised about Palladio's investigative procedures. The study, as a result, will provide a fuller picture not just of Palladio's practices as regards the representation of ancient buildings, and the relationships between his drawings and those by others, but also of what his drawings tell us about the state of knowledge of antiquity at around the midpoint of the sixteenth century.

#### Temples and their illustrations in the *Quattro libri*

Palladio evidently intended the fourth book of his treatise to provide a matchless coverage of ancient temples. It certainly surpassed previous publications on the subject. These were, first, the third book of Sebastiano Serlio's treatise, on the subject of antiquities and first issued in 1540, which features temples prominently, and, secondly, Antonio Labacco's *Libro appartenente a l'architettura*, published originally in 1552, which provides a good many illustrations of selected examples. Palladio's treatment of the subject was far more discriminating than Serlio's, such as in rejecting many of the buildings that Serlio had wrongly assumed to be temples, and in illustrating many more buildings with colonnaded and pedimented porticoes that were broadly commensurate with Vitruvian norms. It was also far more thorough and extensive than the Labacco publication, although Palladio took very careful note of Labacco's presentational format, using Labacco's coverage of the Temple of Mars Ultor as a pattern for future illustrations of his own.<sup>20</sup> The result of Palladio's

endeavours was that he covered a very large number of examples, which included many of the ancient city's grandest and most prestigious buildings with few obvious omissions,<sup>21</sup> and that he represented them in a notably full and comprehensive way, providing them with dimensions given, as usual, in his local unit of measurement, the Vicenza foot.<sup>22</sup> What is rather less obvious, however, is that the accuracy of these representations is often far from perfect, as Antoine Desgodetz was frequently to observe in the following century,<sup>23</sup> and that they were principally based not on the careful surveying of surviving fabric but, it seems, on earlier drawings that were often unreliable themselves.

In fact, Palladio's evident dependence on earlier drawings rather than direct site observations could sometimes lead to the perpetuation of major errors in his eventual illustrations. Such is the case, for example, with the *Quattro libri* plan of Sta Costanza (Fig. 1 a),<sup>24</sup> which differs from the actual building – as it does from Serlio's published version of it (Fig. 1 b) – in that the interior niches are shown as being mainly semi-circular rather than mixing with square-backed ones, and as being fewer than in reality so as to align with the spaces between the internal columns.<sup>25</sup> For this arrangement, Palladio was probably indebted to an earlier plan, similar in this respect to one now in Vienna (Fig. 1 c),<sup>26</sup> showing the building in very much the same mistaken way; and even if he was aware of previous representations of the correct layout, such as the Serlio illustration, he still opted for what he may have regarded as a more harmonious alternative, which he then annotated with numerous dimensions. Whatever the precise circumstances of this particular case, however, the plan was presumably the product of the practice he normally followed, this being to utilise the drawings of others as part of a lengthy and step-by-step process of revision and adaptation which can sometimes, to an extent, be charted. Such a process typically began with earlier images, including those he had initially copied, which would often be followed by him collecting together other records and probably making new drawings; and then, in the run-up to publication, by him redrafting and modifying this material in strictly orthogonal representations, before producing the final drawings for the treatise itself.<sup>27</sup>

Something of this process can be inferred from Palladio's various representations of the Basilica of Maxentius, a process again giving rise to a considerable mismatch between the *Quattro libri* illustrations and the building's physical realities.<sup>28</sup> There are notable differences, for example, between the published plan (Fig. 2 a), where the two outer bays of the aisles have additional spaces behind them,<sup>29</sup> and the surviving structure (as later recorded carefully by Desgodetz) which has none (Fig. 2 b),<sup>30</sup> and between Palladio's elevation of the interior, where the outer bays have six rear-wall arches each accommodating – as also indicated in the plan – six much smaller arches within them (Fig. 3 a), and the surviving structure, which (as seen in Desgodetz's illustration) has no smaller recesses at the lower level and only some scant remains of them at the level above (Fig. 3 b). It follows, therefore, that the *Quattro libri* illustrations were not the fruits of a detailed examination of the site that Palladio had carried out, while other evidence suggests that they were actually based to a considerable extent on earlier drawings. This is particularly clear from a pair of early drawings by Palladio himself, which are undoubtedly copies of drawings produced previously by another practitioner.<sup>31</sup> One is a reconstructed plan of the building and the other is the associated internal elevation – this rendered in perspective (rather than orthogonal projection) as was customary in the early sixteenth century.<sup>32</sup> The plan depicts (among other inaccuracies) the outer bays of the aisles as having, like in the *Quattro libri* plate, additional spaces behind them (Fig. 2 c), while the elevation shows one of the upper arches on the back wall of the aisles as accommodating, again like in the

*Quattro libri* illustration, six much smaller arches (Fig. 3 c) – these likewise indicated in the plan where they are accompanied by smaller arches in all the other apertures as well. Yet the drawings also include features that are not present either in the surviving building or in the *Quattro libri* illustrations, in particular the alcove extending from the central bay of the aisle being largely concealed by an internal screen. It rather follows from this, therefore, that Palladio based his illustrations on a mixing-together of several pre-existing sources, resulting in a version of the building that was more reliable than his own pair of early drawings, but still not very faithful to the building itself.<sup>33</sup> In arriving at the chosen composition, he may have also relied heavily on his memory, which could have been faulty, and on his own straightforward preferences,<sup>34</sup> to the extent of taking only limited account of more accurate drawings of the building produced by predecessors or contemporaries.<sup>35</sup> In fact, he even disregarded another of his own drawings,<sup>36</sup> a plan again probably copied from an early source, which represents the building without the additional spaces attached to the aisles – and thus much more factually in this regard than in the final *Quattro libri* illustrations.

Particularly representative of this transformative progression from source material to eventual publication are the surviving Palladio drawings and *Quattro libri* illustrations of the Temple of Minerva and the associated Forum of Nerva. Both the temple and the forecourt – the former in precarious condition (and finally demolished in 1606) and the latter with little more than one full bay of its eastern side (known as the *Colonnacce*) still standing – are featured on an early sheet (Fig. 4),<sup>37</sup> which is especially instructive in our context because it includes several inaccuracies that would ultimately be repeated in the treatise illustrations. It comprises a plan of the whole ensemble together with the restored front of the temple and a full elevation of the forum's eastern side, which is shown in old-fashioned perspective and is again indicative of the sheet being based on an even earlier representation. The errors are seen mainly in the plan, and they concern the layout of the temple and surrounding structures, the dimensions of the forum, and the arrangement of the entrance end. The temple is shown as having a simple, near-square cella, with part of a rounded structure directly behind and archways at either side, although modern-day archaeology has established, first, that the cella had a narrower apse at the end (to allow for a protrusion from the *exedra* on the left of the neighbouring Forum of Augustus); secondly, that the curved structure behind (now identified as the *Porticus Absidata*) was offset to the right; and, thirdly, that there was very possibly no archway on the left.<sup>38</sup> Moreover, the forum shown on the plan is ten bays in length, whereas in actuality it was far longer (around nineteen bays), while its opposite end is shown as having five bays, to accommodate three probable archways and two further apertures, whereas in reality there was only one opening, or conceivably two, positioned in one or both corners. This early rendition of the temple and forum nevertheless provided the principal template for later drawings by Palladio that happen to survive,<sup>39</sup> now rendered orthogonally, and finally for the *Quattro libri* illustrations (Figs 5 a and b),<sup>40</sup> where the temple again has a more-or-less square cella, with a round feature directly behind it and archways to either side, while the forum, although now extended from ten to fifteen bays, again terminates in five bays with alternating openings.

It may appear rather curious that Palladio disregarded the physical realities of the site given that Antonio da Sangallo had previously produced a drawing which, with remarkable precision, maps out the shape of the cella and its narrower apse, as well as registering the correct position of the rounded structure behind – even if also indicating an archway to the left as well as the right (Fig. 6 a).<sup>41</sup> It must be, therefore, that Palladio felt he could rely on drawings in his possession, such as the

early sheet previously discussed, or others at his disposal, without having to embark on any new on-site investigations, aside from perhaps confirming and re-measuring certain details that could still be seen. For the *Quattro libri*, therefore, he simply arrived at a revised design by incorporating various revisions, recorded in other drawings, which he considered justified. Thus, he changed the configuration of the temple's frontal steps, and also increased their height, like in an earlier reconstruction by Sangallo's brother Giovanni Battista (1496–1548) that also shows the temple flanked by a pair of archways,<sup>42</sup> and he lengthened the forum in accordance – presumably – with other plans of a more extended format,<sup>43</sup> while also taking note of drawings similar to the decidedly fanciful layout (Fig. 6 b) sketched out by Baldassare Peruzzi's son Sallustio (c. 1511–73) at around the same time.<sup>44</sup> This shows the forum (admittedly much shorter in extent and with unwarranted recesses on either side) as terminating at its frontal end in a curving wall of five bays, which, as in Palladio's reconstructions, accommodates three principal openings, whilst again giving the temple a tall flight of steps ascending to a cella with no apse that backs onto a rotunda.<sup>45</sup>

With regard to another building illustrated in the *Quattro libri*, it might appear that Palladio was occasionally willing to make radical changes to the earlier surveys of previous architects, if this seemed merited by the visible evidence, in order to devise an innovative and more credible reconstruction of his own. The building in question is the Temple of Serapis on the edge of the Quirinal Hill, which had previously been depicted in a late fifteenth-century plan and other drawings by Giuliano da Sangallo,<sup>46</sup> and was also known from sixteenth-century copies of the Sangallo plan, which include a version of it published by Serlio.<sup>47</sup> The building, perched close to the hill's western escarpment and reached from behind via a monumental structure accommodating sequences of staircases,<sup>48</sup> had largely disappeared even before Sangallo's time, aside from a small, since-demolished portion of the rear wall known as the 'Frontispiece of Nero'. In Sangallo's plan, it was interpreted as having a central courtyard and as being flanked by a further pair of colonnaded courts (Fig. 7). Later, when Palladio came to inspect the site, an event recalled in the *Quattro libri*,<sup>49</sup> even more of the building had vanished,<sup>50</sup> and so he would have taken careful note of Sangallo's well-circulated speculations before producing early drawings himself – although the only ones by him to survive were all made later. It is clear, however, from these later drawings (Fig. 8) and from the final *Quattro libri* illustrations (Fig. 9) that he had looked afresh at how the surviving physical evidence might correspond with a possible temple layout, and this seemingly led him to the creative leap of envisaging the building not as being flanked by courtyard colonnades, in the way shown previously, but as having porticoes of gigantic columns raised on steps and running continuously around three of its sides. In arriving at this conclusion, Palladio was evidently guided by certain types of temple described by Vitruvius that are alluded to in the *Quattro libri* commentary. These, specifically, are the 'pseudodipteral' temple, which has the flanking colonnades spaced an additional bay away from the cella walls,<sup>51</sup> and the 'hypoethral' temple, a temple type of colossal dimensions with an open-roofed internal layout, which must have been judged as compatible with the building remnants that had been observed.<sup>52</sup> Palladio was certainly familiar with these two types of temple design, having recently illustrated them both in the edition of Vitruvius produced by his long-term supporter the erudite Daniele Barbaro (1514–70) and published in 1556; and it may even be that he had discussed the matter with Barbaro himself, who was perhaps one of the 'Venetian gentleman friends' mentioned as accompanying him to Rome in 1554,<sup>53</sup> as well as with others who held similar interests.<sup>54</sup> On such a basis, a viable plan was then devised, which was piloted in a drawing before being considerably revised for the final illustrations.<sup>55</sup> The process involved some experimentation



with the shape and arrangement of the interior and the possibility of a concluding apse,<sup>56</sup> and giving the colonnaded exterior a façade, at the opposite end to the monumental staircases, of an extraordinary twelve columns in width, whilst arriving at a plausible composition for additional frontal columns that are set out in parallel files much like those of the Pantheon.

Yet Palladio's re-interpretation of the design was not, in all probability, the result simply of his own deduction. In other words, it appears that Palladio was not the only – or the first – figure to suppose that the original building was of the layout and appearance chosen for his own reconstruction, and that similar conclusions had been reached by other figures beforehand. His formulation, for example, follows the lead of an unidentified Florentine draughtsman who had previously drawn the building with a pedimented frontage the equivalent of twelve columns in width (Fig. 10).<sup>57</sup> It tallies, too, with the researches conducted by Antonio da Sangallo the Younger around 1540. Sangallo had produced a sketch plan – recently discussed – of the rear portion of the building showing the side colonnades flanking a cella with an apse at the end (Fig. 11 a), very like in Palladio's later reconstructions, and elsewhere he had also concluded that the building was one of pseudodipteral type, just as Palladio was to do subsequently.<sup>58</sup> In fact, envisaging the building as a kind of temple may well have become the norm in drawings from before Palladio's time. One that happens to survive was made by Sallustio Peruzzi and is in the form of a small sketch plan, accompanied by a tiny bird's eye view, showing a restoration of the building in the form of a temple, which is similar to the *Quattro libri* illustrations in having colonnades and steps on three sides (Fig. 11 b),<sup>59</sup> albeit with flanking terraces that would be rather disregarded in Palladio's reconstructions. Sallustio's plan also differs from Palladio's in showing the building as having a less elaborate peripteral format, with a simple rectangular cella, a façade of probably ten columns in width, and no files of columns behind them. These differences would indicate, therefore, that the two reconstructions were made independently; but their broad similarities, coupled with the likelihood that the Sallustio sketches were themselves probably derived from drawings made previously, as is implied by their small size and cursory execution,<sup>60</sup> would certainly suggest that the building was widely understood in very much this way, and was probably represented as such in various other drawings, now lost, that Palladio could well have known. In short, he was probably dependent on these earlier reconstructions for the format and layout of the building he would devise himself.

The final renditions of many other buildings chosen for the *Quattro libri* involved 'completing' the on-site evidence, a step that was often conjectural to say the least. It almost always meant, for instance, devising a plausible format for the building's interior,<sup>61</sup> which in the cases of the Temples of Minerva and Serapis (Figs 5 and 9), as in several other instances, may have been largely invented. Sometimes the reconstructions required new thought to be given to the layouts and internal elevations – always represented in strictly orthogonal projection – of buildings that had hitherto been little studied, although these are often subject to a generalising uniformity, and Palladio may have been steered to his chosen formats again by the misconceptions of earlier figures, including Antonio and Giovanni Battista da Sangallo. Thus, although Palladio was ultimately proved correct in giving the Temple of Castor and Pollux a façade eight-columns wide, he depicted it as a Vitruvian double-fronted building standing on a stylobate,<sup>62</sup> as had Giovanni Battista da Sangallo previously,<sup>63</sup> rather than having a much shorter plan and a tall podium with a frontal flight of steps, which was the building's original arrangement. Other temples were represented in much the same mistaken way, including the Temples of Mars Ultor, Hadrian, Vespasian and Venus Genetrix,<sup>64</sup> even though Palladio claimed the last two examples were informed by on-site observation. His reconstruction of the

Temple of Vespasian has a doubled rear wall (explained by him as being for extra stability and to counteract water penetration),<sup>65</sup> which was allegedly based on physical evidence but not subsequently verified;<sup>66</sup> and his untenable reconstruction of the Temple of Venus Genetrix,<sup>67</sup> which lacked any standing fragments, was supposedly the result of him having had an opportunity to examine its ‘numerous remains’.<sup>68</sup> In the case of another temple, that of Antoninus and Faustina,<sup>69</sup> he again followed the findings of previous surveys,<sup>70</sup> but augmented them by adding a forecourt,<sup>71</sup> after deciding – erroneously – that he could still discern its remnants.<sup>72</sup>

It was in the run up to publishing the *Quattro libri* that Palladio turned ever more to earlier images, presumably realising that he needed to supplement the material previously assembled for his illustrations. Sometimes these new borrowings again resulted in endowing buildings with fictitious features, a prominent example being the *Quattro libri* plates of the Pantheon (Fig. 12), where the exterior is given an invented surfacing of simulated ashlar and pilasters,<sup>73</sup> following the example set by a remarkable cut-away engraving of the building dating from 1553 (Fig. 13).<sup>74</sup> He also turned to earlier images for details that he was otherwise lacking, which were sometimes inaccurate and thus undermine his Book Four claim about measuring such details with ‘scrupulous care’ himself.<sup>75</sup> An especially notable example of this is provided by his plates showing details of the ‘Temple of the Sibyl’ at Tivoli (Figs 14 a and b),<sup>76</sup> which (like a surviving sheet of Palladio drawings) show the building’s Corinthian columns to be of a fairly conventional type.<sup>77</sup> They thus fail to register that the column flutes and especially the capitals are both of decidedly non-standard design (as later recorded by Desgodetz: Fig. 14 c),<sup>78</sup> and they follow the erroneous precedents set by the equivalent illustration published by Serlio (Fig. 14 d) and a related sheet now in Vienna.<sup>79</sup> Another instance of Palladio being similarly misled is provided by his *Quattro libri* representation of the Corinthian capital used for the Temple of Mars Ultor (Fig. 15 a).<sup>80</sup> The illustrated capital is described in the accompanying text as having an exceptionally large abacus, and a bottom row of leaves which, unusually, ‘swell out a little from where they originate, which makes them extremely graceful’.<sup>81</sup> In both these particulars, however, he was mistaken, since the *Quattro libri* capital actually differs in both shape and proportions from the temple’s actual capitals (as recorded by Desgodetz: Fig. 15 b) – although it corresponds closely with the illustration published by Labacco (Fig. 15 c), which suggests that it was Labacco rather than the building itself that served Palladio as his source.<sup>82</sup>

Other errors are not the result of Palladio relying on earlier drawings, although they still demonstrate that he was not as diligent in recording what was available to be seen as he claimed. A telling example of such inaccuracy is the *Quattro libri* plate of details of the Temple of Castor and Pollux (Fig. 16 a),<sup>83</sup> which he praised by remarking that he had never seen ‘any better or more delicately executed work’ and that it was ‘beautifully conceived and perfectly worked out’.<sup>84</sup> Indeed, the capitals had been widely held by such figures as Labacco to be the most beautiful of any.<sup>85</sup> Yet Palladio’s illustration of it is significantly different from reality (as Desgodetz illustrated: Fig. 16 b),<sup>86</sup> and also from images of it produced by Labacco, as well as Peruzzi, Serlio and De l’Orme, which Palladio must have known but chose to ignore (Fig. 16 c).<sup>87</sup> The *Quattro libri* illustration shows the capital’s famously interlocking tendrils, but these are made notably smaller than in reality, while the lower fascia of the architrave is made vertical rather than slanted, and the modillions in the cornice are spaced more widely apart. In all these respects, therefore, he presented the details as being far less quirky than in reality and much more in line with expected norms, making a desired conformity take precedence over any observable deviation. That he preferred standardisation to variation is evident, too, in his illustrations of other Corinthian capitals. Discussing those of the Temple of

Minerva, he correctly observed that the leaf fronds were grouped in fives, likening them to ‘the fingers of men’s hands’, and adding that this arrangement was greatly preferable to fronds grouped in fours,<sup>88</sup> and he illustrated this feature very clearly in his plate of details.<sup>89</sup> This feature, however, is common to all his illustrations of Corinthian capitals, irrespective of whether it corresponded with reality or not. It certainly did not in the case of the Temple of Mars Ultor, where the fronds are in fact grouped in fours (as Desgodetz accurately recorded: see Fig. 15 b),<sup>90</sup> or in that of the Round Temple by the Tiber, where some of the capitals have the fronds grouped in threes.<sup>91</sup>

From observations such as these, we can arrive at further conclusions about Palladio’s working methods and their evolution. Palladio, it seems, often began with drawings of monuments produced by earlier figures which he would then adapt for his own representations, even despite perpetuating significant errors, whilst sometimes also resorting to other findings and misapprehensions with little or no basis in material fact. His transformations of such material also saw him re-configuring earlier drawings in accordance, as noted previously, with the now long-accepted preference for orthogonal representation; and then, as his wish to publish loomed ever larger,<sup>92</sup> he turned ever more to exploiting earlier material in order to achieve as full and detailed a coverage as possible, in both the number of buildings included and the completeness of their treatments, so as to meet the challenge posed especially by Labacco’s book, even despite the danger of entailing further errors. In fact, his undimmed determination to maximise his coverage even saw him borrowing wholesale from the book published by Jean Poldo d’Albenas in 1559 on the antiquities of Nîmes in southern France,<sup>93</sup> adapting its illustrations for his own of two of the ancient buildings there.<sup>94</sup> Yet, at the same time, he was also motivated by a desire not only to illustrate his chosen buildings as fully and as comprehensively as reasonably possible, but also to present them with a degree of underlying design consistency in respect to their layouts, their external and internal elevational compositions, their prominent architectural orders, and even the particulars of their detailing.

#### Bath complexes

Although unpublished in his lifetime, Palladio’s researches into ancient bath complexes were still to be of considerable consequence. This was because his finalised drawings were painstakingly copied and published in the 1730s by Richard Lord Burlington, which resulted in several of the plans assuming – sometimes even today – an authority as reliable records of what, in the presumed absence of other credible evidence, was supposedly once visible or detectable on site. Palladio had evidently been on the verge of publishing the drawings himself just before he died since they were found, when rediscovered by Burlington in 1719, to have been ‘given their final touches’ and were ‘all wrapped up ready for publication’.<sup>95</sup> They certainly form a remarkable complete and coherent group, covering all the most extensive complexes, which are represented not only in plan but also in multiple elevations and sections running the full extents of their lengths and widths. What makes the group so extraordinary, too, is that there are indeed so few drawings of these complexes – aside from the relatively well preserved Baths of Caracalla and Baths of Diocletian – that otherwise survive. Yet this lack of comparative material should not imply that Palladio’s drawings were particularly rare at the time they were produced, or that Palladio based them predominantly on his own on-site investigations. His plans would certainly suggest that he lavished special attention on them; but they also allow the conclusions to be reached that he based most of them very closely on

previous surveys that were already very diligent, and that some of them are more accurate than others – even excluding his final plan and various related studies of the Baths of Agrippa which are patently the products largely of his imagination.<sup>96</sup> His plans, together with the other drawings that happen to survive, also provide enough information to clarify his investigative methods and assess his reliability.

The procedure Palladio followed is well illustrated by his engagement with the Baths of Titus close to the Colosseum on the Oppian Hill. This complex was already ‘very ruined’ by his time, as he himself observed,<sup>97</sup> and the only early plans of it to survive, in this instance, are from his own hand. These comprise not only the drawing eventually given precedence (which would later become the complex’s accepted layout: Fig. 17 a),<sup>98</sup> but also an alternative fair-copy plan (Fig. 17 b), itself relating to a freehand sketch (Fig. 17 c), both of which are very different from the principal version, even despite the fact that all three drawings are carefully annotated with measurements.<sup>99</sup> There are certainly similarities between the two finalised drawings, especially in respect to the two matching halls at the front and their immediate surroundings, but other areas of the layout, namely the paired courtyards behind and their neighbouring rooms and the curving features to either side, differ in numerous particulars. The principal plan, moreover, includes an imposing lateral hall between the courtyards which is missing from the other layout, as is the frontal enclosure, the monumental staircases preceding it, and the cistern at the complex’s rear.<sup>100</sup> As for the sketch plan, this also differs from its fair-copy counterpart in several of its details, as well as in indicating a longitudinal hall on the complex’s main axis.<sup>101</sup> What all this suggests, therefore, is that Palladio had two or more prior surveys of the complex at his disposal, one of them probably adapted in the sketch plan, which collectively incorporated elements based on secure physical evidence – in particular the nucleus of the paired frontal halls – as well as providing tentative interpretations of what else could still be seen; and that he then made decisions in accordance with this material that were not necessarily always correct, to arrive at a unified design which also included elements – especially his lateral hall which resembles the very similar halls belonging to the Baths of Caracalla (see Fig. 20 b) and Diocletian – that were not based on physical evidence at all but were resourcefully conjectured on the analogy with these other complexes. In other words, the existence of the two other drawings allows us to become aware of the likely limitations in accuracy of his finally approved plan, in respect not just to the lateral hall and its adjuncts but also to other features of the layout that have little basis in recorded evidence or are not easily explained.<sup>102</sup>

When deciding on the layouts of other complexes, Palladio likewise took account of earlier surveys, although the final compositions he devised can still vary widely in rigour and, as a result, in reliability. For his plan of the Baths of Nero (Fig. 18 a),<sup>103</sup> for example, a complex situated not far from the Pantheon and now almost entirely vanished, he evidently made good use of the plan he had hurriedly copied on a preliminary sheet (Fig. 18 b),<sup>104</sup> which shows the front of the complex with its projecting central hall, as well as one of a pair of hemicycles to the rear. He may well have also been aware of other earlier drawings of the kind copied previously by another architect (Fig. 18 c), which maps out other areas of the complex not included in the early Palladio sketch, in particular the large transverse hall at its heart and the rooms to either side of it.<sup>105</sup> The result, in this instance, is that his final plan, which involved making significant changes and decisions during its execution, is not only credible but also consistent with the few extant fragments of the complex still detectable within later structures.<sup>106</sup> Yet such a procedure was not always followed so scrupulously, as is most notably the case with his plan of the now-vanished Baths of Constantine on the Quirinal Hill (Fig. 19

a),<sup>107</sup> even despite the fact that it is often presented today as a faithful record of what once existed.<sup>108</sup> Much of the complex, which was also recorded in various earlier images including one published by Serlio,<sup>109</sup> was still partly standing in Palladio's day, including the entire frontal range with its projecting circular *caldarium* and the various ranges of rooms on the complex's two matching flanks; and all this was documented in the earlier surveys with a considerable degree of consistency. The area between these side ranges, by contrast, which was either inaccessible or extremely ruinous, was seemingly one of much greater contention, although it is shown in previous surveys as being occupied by two further rotundas (Fig. 19 b). Palladio, however, was not of such a view, perhaps considering the supposed layout to be too far out of line with established ancient norms. In his own plan, therefore, he retained the accepted arrangements of the front and the side ranges, but he replaced the central rotunda with a laterally positioned *frigidarium*, similar to those in the Baths of Caracalla (see Fig. 20 a) and Diocletian but presumably lacking any further justification, while removing the third rotunda entirely to leave an open area in its place. To achieve this change and create enough space for the *frigidarium*, moreover, he also had to adjust the layout more generally by making a corresponding reduction to the widths of the side ranges, and hence further departing from the realities of the site and, it seems, manipulating previous surveys in order to match with his own ideals.

The plans Palladio devised for the Baths of Caracalla and Diocletian, by contrast, are both very faithful to their original designs. In respect to the latter, Palladio followed what was by now the well-established layout,<sup>110</sup> although he chose to show the large theatre-area at the front as incorrectly semi-circular in shape, in the way it had been represented previously by Serlio,<sup>111</sup> rather than less than a semi-circle, which is how it is depicted in several earlier and later drawings and how it was originally built.<sup>112</sup> With respect to the Baths of Caracalla, Palladio was faced with rather less certainty, but he took care, in the end, to base his plan on the most plausible of previous surveys with regard to the precise design of the heavily ruined *caldarium* and neighbouring *tepidarium* which, before his time, had often been very poorly understood. An initial plan by him,<sup>113</sup> perhaps modifying an even earlier survey produced in the Sangallo circle,<sup>114</sup> shows the circular *caldarium* close to how it would have been originally, in having eight equally-spaced perimeter piers that each accommodate a circular staircase (Fig. 20 b); but it also reveals that the design of the *tepidarium* was yet to be agreed upon, and instead has the *caldarium* backing onto a semi-circular area (with no equivalent in any other surviving plan) that is inserted into the irregular space behind it. Palladio's final plan again represents the *caldarium* with eight regularly-positioned peripheral piers,<sup>115</sup> but it now shows the *tepidarium* as a small square room with corner piers and corner columns (Fig. 20 a) – an arrangement very like one seen in a surviving drawing by a different author of earlier date,<sup>116</sup> and perhaps also documented in a sheet known to Palladio. It was only in the more exacting survey recorded in the Codex Destailleur D in Berlin that the *caldarium* and *tepidarium* would be shown as being close to their original designs (Fig. 20 c).<sup>117</sup> There, the *caldarium* piers were recognised as not, in fact, being evenly spaced, and the peripheries of what was now firmly established as a square-shaped *tepidarium* were delineated with a new precision.<sup>118</sup>

In the case, finally, of the Baths of Trajan on the Oppian Hill, Palladio might appear to have taken pioneering steps himself in establishing the plan of the ancient complex, but this is probably illusory. The difficulty here is that there are no extant plans of the complex, which had mostly disappeared from view, dating from around Palladio's time or earlier, apart from two diagrammatic layouts (one of them by Antonio da Sangallo) which provide very little information that is more specific,<sup>119</sup> but

demonstrate that the site was already of interest before Palladio's time. Palladio's plan, by comparison, is a far fuller and more detailed representation of the complex (Fig. 21 a), a composition of halls and other rooms of numerous shapes and sizes, and one closely comparable with his other plans of bath complexes;<sup>120</sup> but it is still much less complete than the one produced in an independent survey known from the Codex Destailleur D, which can be pieced together from the various drawn elements of it included there (Fig. 21 b).<sup>121</sup> This plan, unlike Palladio's, shows the rear of the main block now extending backwards to the edge of the enclosure, while the enclosure itself gives access to whole ranges of rooms and other structures that Palladio did not register. Palladio's plan, however, includes one major element that is lacking in the Destailleur survey, this being the forward-projecting *caldarium* at the front of the main block which, in the Destailleur plan, was for some reason never properly delineated, although it is very faintly sketched as a circular structure like the *caldarium* of the Baths of Caracalla. Yet, in this and in other respects, neither representation of the frontal range necessarily corresponds with the way it was designed originally. In the Destailleur drawing, the rooms to either side of the missing *caldarium* are wider than in the Palladio plan, and thus constrict the space for any projecting hall at the centre. In Palladio's plan, they are just narrow enough to allow for a *caldarium* of a very similar three-bay format to that of the Baths of Diocletian, which may well suggest that Palladio adjusted their dimensions to make this possible, and that the *caldarium* he included, which is repeated in modern plans, was largely a product of his creative mind.<sup>122</sup> What these differences also suggest is that Palladio and the Destailleur surveyor both followed much the same time-honoured method for reconstructing the building's plan, which was to make good use of pre-existing surveys, and it may even be that the two utilised the same pre-existing surveys before tackling areas of uncertainty, arriving at new conclusions – or suppositions – and then adapting them to fit in with a plausible overall composition.

Palladio, in addition, produced a very large number of elevational drawings to accompany his plans of the various bath complexes, which were executed probably long after his final visit to Rome. These include not just the meticulously-finished final sheets later published by Lord Burlington,<sup>123</sup> which usually comprise three transverse elevations and sections plus a fourth at the bottom following the line of the principal axis, but also a great number executed at a far larger scale,<sup>124</sup> which are rather diagrammatic equivalents of the final productions (albeit some of them missing), and often show various adjustments and corrections. Drawings of these kinds might appear to be very unusual for their time, but this may well be a consequence, again, of what happens to have survived, and it appears instead that Palladio was again following the leads of his predecessors. There are, admittedly, no earlier drawings that survive of precisely comparable kinds, but some by Palladio himself appear to be copies of earlier examples, and it would be works such as these on which he based his own representational practices.<sup>125</sup> They include two neat copy drawings that are both rendered in perspective, one a partial section through the Baths of Caracalla showing a portion of the *frigidarium* (Fig. 22 a) and the other a half-section through the main block of the Baths of Diocletian (Fig. 23 a).<sup>126</sup> A further sheet, a little-analysed compilation of miscellaneous studies, also includes sections, these being hurried orthogonal sketches of the Baths of Caracalla which are not trials for his own subsequent sections, since they differ considerably, but records of detailed drawings by an earlier practitioner (Fig. 22 b).<sup>127</sup> One shows two abutting half-sections through the main block, on the left to include the *frigidarium* and on the right a half-elevation of the building's frontage, both of them markedly different from Palladio's subsequent representations (fig. 22 c); and the other, which is depicted directly underneath and at exactly the same scale, is a partial

section, not included by Palladio subsequently, through the *natatio* at the rear of the complex and showing the elevation of its back wall.<sup>128</sup> Further evidence of the prior existence of drawings of this kind is provided by an engraved set of full-width elevations and sections (albeit shown perspectively) of the Baths of Diocletian, which were based on material gathered in Rome probably around 1550/51 by the architect Sebastiaan van Noyen (d. 1557), and published by Hieronymus Cock in 1558 (Fig. 23 b and d).<sup>129</sup> Later elevational drawings also exist, notably those in the Codex Destailleur D where full sets, some executed at very large scales (see Fig. 24 a), accompany the plans of the Baths of Caracalla and Diocletian, but also three loose sheets of the Baths of Caracalla, seemingly related to the Destailleur drawings, that are now in Vienna.<sup>130</sup> What all this material shows, therefore, is that the final Palladio drawings, produced after his last trip to Rome in 1554, were firmly rooted in the graphic conventions of the day, which provided him with a format for his own compilations of material and a way to present them – whilst, at the same time, allowing him ample scope for much reinvention.

Palladio's own elevations may appear convincing and viable but they are not always very attentive to the particulars of the surviving remains. Sometimes Palladio was seemingly guided by the examples provided by earlier images, albeit preferring an orthogonal rather than perspectival mode of representation. His elevational drawings of the Baths of Diocletian, for example, appear to be closely related to those produced by Van Noyen and published by Cock, possibly through common prototypes,<sup>131</sup> although Palladio could have also been aware of the final publication. The sections are very similar (Figs 23 b and c), but Palladio, unlike van Noyen, used *serliana* compositions for some of the internal columns screens, following the precedent set by his own early copy drawing (Figs 23 a). The front of the main building is also shown by them in very much the same way (Figs 23 d and e): their respective depictions both include rows of arches carried on columns, and both unify the elevation by running a full lower-storey entablature supported on occasional pilasters (not founded in any physical evidence) from the central *caldarium* to the façade's extremities,<sup>132</sup> although Palladio – unlike Van Noyen – had a pair of high-level *serliana* windows inserted (anachronistically) at either end. His reconstructions of other complexes can occasionally include certain features not determined by the plan, as in the case of the Baths of Constantine, which he may have remembered from on-site records or known from earlier images.<sup>133</sup> In this instance, his elevations correctly record the circular *caldarium* as having upper-level apertures that are unaligned with those below them, although he then misrepresented the monument by greatly reducing the hall's height and also modifying the frontal compositions to either side. More often, however, he may simply have generated the elevations straight from his plans, devising credible formats, initially at the much larger scale, that were consistent with them, and reliant on a very limited repertory of compositional formulae. In this respect, he was again following approaches established previously, such as in the elevations of the Baths of Caracalla he had copied (see Fig. 22 b), which likewise exhibit a marked tendency towards consistency and standardisation. His approach, however, was in marked contrast to the one followed in the Codex Destailleur D drawings, even despite these being similarly executed at a gigantic scale. The Destailleur elevations often give an impression – albeit partly dependent on a certain amount of interpolation and pure speculation – of being remarkably exact and objective representations of the building fabric, by indicating many structural details such as brickwork arches and the external surfaces of vaults, and, in the case of the longitudinal section of the Baths of Diocletian (Fig. 24 b),<sup>134</sup> which differs markedly from the corresponding elevation produced by Palladio (Fig. 24 a), by including an extremely precise rendition – or so it would seem – of the

underground spaces beneath the *caldarium* and its hypocaust heating provision. Palladio's drawings, by contrast, supply very little information about the building's structural particularities, and include no indications anywhere of any subterranean regions, and they instead tend to reduce the elevations to sequences of preferred elements, including column screens and *serliana* arrangements, that are of general applicability.

What these various observations, therefore, make clear is that Palladio, in Rome and subsequently, relied upon methods which, again, were informed very little by detailed first-hand examination of given sites, of the kind implied in the *Quattro libri*. If his conclusions were sometimes reliable, as may be the case with the Baths of Nero, then this may be mostly down to the accuracy of previous surveys – which he could then have confirmed *in situ* – rather than to any new site information he was able to provide himself. In fact, almost all his studies were firmly rooted in the practices and achievements of the past, in both content and format, although the final plans he produced are good indicators of the knowledge that had accrued about them by the late 1540s. The elevational studies he executed subsequently were needed to provide a comprehensive set of images for publication, but they also represent a revision of his aims, these now being little concerned with observational precision, and concentrating much more on an idealised design consistency, presenting the ancient buildings as smooth-walled and pristine structures simplified in ornamentation and devoid of any unnecessary complication.

#### Palladio and his associates

As we have now seen, Palladio's approach towards the recording of ancient buildings and monuments underwent prodigious changes over the course of his long career. One such change was recognised to some extent in the *Quattro libri* when Palladio commented that, early on, he had measured just the 'parts' of buildings before later travelling to various places in order to understand the 'totality' of buildings from their parts and 'commit them to drawings'.<sup>135</sup> The principal factor underpinning this change of focus, which also saw him moving away from the simple copying of drawings towards much more sophisticated practices in the recording of antiquities, was that he was coming into contact with new circles of architects and draughtsmen, whose knowledge, collectively, of ancient architecture was continually increasing, and whose skills at investigating ancient monuments were ever more rigorous and advanced. In fact, it seems likely that Palladio actively cultivated these new contacts and, as a result, encountered an abundance of graphic material which was increasingly accurate or interpretively adventurous, and which in turn presented him with a whole range of new challenges and opportunities.

At the start of his career, Palladio had gained his knowledge of ancient buildings exclusively, it appears, from drawings of them made previously by his senior contemporaries which he had then painstakingly copied. Indeed, he may have been copying drawings of antiquities in Vicenza already by the early 1530s, such as those of Roman antiquities known to have been made by his older colleague Giovanni da Porlezza (c. 1480–1550).<sup>136</sup> Many of the early Palladio drawings to survive, which are often painstaking in execution and follow common conventions of the earlier part of the sixteenth century such as the frequent inclusion of perspectival elements, are of buildings in nearby Verona, some or all of which are likely to have been based on originals executed by Sanmicheli, who had returned to the city of his birth in 1526. A pair of these early copy drawings are of Verona's



Porta dei Leoni,<sup>137</sup> which match very closely, although not absolutely precisely, with finely wrought drawings by other hands, in a way that suggests they were all derived from now-lost originals;<sup>138</sup> and several other early drawings could well have been derived from prototypes produced by Falconetto and others, such as Palladio's coverage of the ancient buildings of Pula in modern-day Croatia, which Falconetto is known to have visited in the 1520s or early '30s.<sup>139</sup> Other likely copy drawings are of ancient buildings in Umbria (where Sanmicheli had been based prior to 1526), and it seems very reasonable to presume – there being no evidence to the contrary – that the vast majority if not all of Palladio's early drawings of Umbrian and North Italian subjects are close copies of originals produced by earlier draughtsmen. It even seems possible – even probable – that at least some of his early drawings of the antiquities of Rome date from well before he first journeyed to the ancient capital in 1541, since they have the appearance of being neat copy drawings rather than more direct responses to the buildings depicted.

Once in Rome, however, Palladio soon ceased replicating previous drawings precisely. Nevertheless, there is still some direct evidence of his using them as reference material. A sheet showing details from the Theatre of Marcellus bears an annotation giving measurements 'according to the drawing of Messer Michiele', this almost certainly being Sanmicheli, and a second note referring to a drawing by an architect named 'Ventura', possibly the long-deceased Ventura Vitoni (1442–1522).<sup>140</sup> This indicates that Palladio was now gaining access to some of the abundant drawings circulating in Rome, which must soon have included material produced by Antonio da Sangallo and his close followers, as well as sheets produced by other enthusiastic antiquarians of the period. To reiterate the proposal being advanced here, it was his access to this abundance of material that enabled Palladio to gain such a wide and detailed knowledge of ancient architecture in a relatively limited amount of time, particularly during the period 1545–49, and allowed him to reach his own conclusions about a great number of sites that he could actually inspect at first hand, perhaps with moderations or revisions to the deductions of his predecessors. It was then on this basis that he was able to produce his own representations of all these various monuments and, in the end, generate additional material, often grounded in his overall familiarity with antique architecture and on his own personal preferences, which would be suitable for publication.

The impact on Palladio of Sangallo and his immediate circle should not be underestimated. Sangallo had been the dominant figure in Roman architecture ever since the death of Raphael in 1520, and he presided over a coterie of like-minded individuals, including his younger brother Giovanni Battista, who espoused the doctrine that ancient precedent should provide a basis for modern practice – a principle likewise embraced by Palladio. Many members of the Sangallo circle, moreover, were prolific draughtsmen, who followed Antonio's lead in the painstaking surveying or recording of ancient buildings and remains. This coupled with his unequalled professional standing could well have made Sangallo an irresistible attraction for the younger Palladio, and there are some grounds for believing that Palladio somehow became part of Sangallo's immediate circle. He is thought, for example, to have been responsible, in 1545/47, for the design of the ciborium in the hospital attached to Sangallo's church of Sto Spirito in Sassia, which is attributed to him by long tradition.<sup>141</sup> His early reputation as an architect in Rome may have then led to him being consulted, reportedly, on the design of St Peter's in 1549,<sup>142</sup> this being not long after Sangallo's death in 1546 and when Michelangelo had been given charge over the enterprise. Palladio's attentiveness to Sangallo's architectural outlook would eventually be seen, for example, in his highly systematic approach to building design and in his architectural vocabulary in general, including his particular formulation of

the architectural orders.<sup>143</sup> In short, his engagement with the Sangallo circle must have been one of the most profound and enduring of all his formative experiences, having a major impact on his understanding of antiquity; and it was probably from Sangallo that Palladio derived an important conceptual approach: the reconciliation of observable ancient practice with Vitruvian theory.<sup>144</sup> It was this principle which underpinned the reconstructions devised by Giovanni Battista, from as early as the 1520s, of many of Rome's temples that are shown with stylobates, restorations that provided well-established precedents (as noted previously) for the similar reconstructions later produced by Palladio.<sup>145</sup>

Palladio must have also been in contact with younger figures of energetic outlook. These are likely to have included Sallustio Peruzzi whose interests, as we have seen, were sometimes commensurate with Palladio's. They most certainly included Sallustio's future colleague Pirro Ligorio, the author of several drawings closely matching with Palladio's depictions of the same buildings, some of which have been judged (as we shall be discussing) to have been duplicated or closely followed by Palladio – despite the inconsistency with what is usually said about his practice at this time. It is very possible that the two were closely acquainted, perhaps from as early as 1545,<sup>146</sup> and the fact that several drawings the pair produced are so closely related is certainly remarkable. That this is so must be, in part, due to the sheer amount of antiquarian material that Ligorio produced, of which much still survives especially in his extensive compilations now in Turin, Naples and elsewhere. At the very least, however, it suggests that the two were often drawn to the same subjects, even when these had been of little interest previously. The Palladio drawings falling into this category consist of a well-known early sheet showing the Tempietto at Clitunno near Spoleto in Umbria, later redrawn for the *Quattro libri*, as well as a sheet depicting the Roman villa at Anguillara Sabazia to the north of Rome, and his earliest plan and frontal elevation of the Temple of Fortuna at Palestrina; and to these can also be added various other representations with close correspondences with Ligorio's output,<sup>147</sup> which include a façade drawing of the Temple of Castor and Pollux in Naples that again relates to *Quattro libri* illustrations, and a plan of the Temple of Hercules Victor outside Tivoli.

The Palladio drawings of the Tempietto at Clitunno,<sup>148</sup> such as that of the exterior (Fig. 25 a), certainly match closely with a set of late studies by Ligorio (Fig. 25 b), these being presumed copies of drawings he had produced beforehand;<sup>149</sup> but to suppose Palladio was heavily dependent on Ligorio for these drawings is overly simplistic.<sup>150</sup> Such a connection takes insufficient account (as a lone writer has noted) of a sheet of drawings of the building by Antonio da Sangallo,<sup>151</sup> which, like Palladio's and Ligorio's, provide detailed coverage and show it with porches redesigned in the same way and fictitious flights of steps on either side of the central portico (Fig. 25 c). The Sangallo drawings must have been made at an earlier time, long before his death and probably long before those produced by Palladio and Ligorio; but their significance becomes especially great when their cursory execution – which distinguishes them from the Palladio drawings – is taken into account, since this strongly implies that they are copies of yet other drawings that were finished much more exactly. The existence of the Sangallo sheet thus suggests that the Palladio drawings could have been likewise derived from early originals, and so not from the Ligorio drawings. This would imply that the mode of representation adopted by Palladio, seen particularly in the oblique perspective, should be explained not as a debt to Ligorio's eccentric drawing practices but as a faithful replication of the antiquated conventions of that earlier period. This does not necessarily mean that the Palladio drawings date from before 1545, when Palladio and Ligorio may have first become acquainted, and thus from the time of many of his other copy drawings – although to judge from the drawing style

this seems highly likely – or that there is no connection between the Palladio and Ligorio drawings;<sup>152</sup> but it may indicate that the two architects, perhaps knowingly, were both availing themselves of the same resources – or even that Ligorio was basing his material on drawings by Palladio. By the same token, it may also be that the remarkably close similarities between Palladio's later drawings of the ancient villa at Anguillara Sabazia, which are much less finely executed,<sup>153</sup> and Ligorio's corresponding and still-surviving representations, likewise rendered in part-perspective,<sup>154</sup> were similarly derived from a common source, although in this case there is a strong possibility that Palladio's were based on material supplied to him by Ligorio.<sup>155</sup>

As for the similarities seen in other drawings, these may again imply some form of direct interchange, although again not necessarily Palladio's dependency on Ligorio, and they also throw additional light on the ways in which the two may have sometimes interacted. With regard to the Temple of Fortuna at Palestrina,<sup>156</sup> the Palladio drawings are very well matched to the realities of site;<sup>157</sup> and they may well, on this occasion, postdate the ones Ligorio originally produced, which are again lost but were copied by him in other drawings he made later.<sup>158</sup> Palladio's presumably date from after his visit to the town in 1547,<sup>159</sup> whereas those initially produced by Ligorio were perhaps executed in 1545, when his own presence there is recorded,<sup>160</sup> and so, in this instance, it may well be that Palladio's (Fig. 26 a and 27 a) were based on Ligorio's (Fig. 26 b and 27 b) – or else on drawings very much like them.<sup>161</sup> Palladio certainly incorporated many of the same features that Ligorio had also included (whether reliably or otherwise), such as the topmost shrine shown surrounded by columns, as well as several of the components of the lower levels; but he treated other features of the site, which at that time was encrusted by later structures, in a manner that was very much more faithful to its topography and to the surviving ancient remains, such as inserting the pair of monumental ramps below, which Ligorio – for no obvious reason – had omitted, as well as making the various superimposed terraces larger and more practicable in size, and adding further structures at the front. Many of these changes were made to his plan during the course of its execution, and these included erasing the convex steps belonging to the staircase just below the summit that Ligorio had shown. In this instance, therefore, Palladio was evidently amending the composition seen in the Ligorio drawings, presumably based in part on his own experience of the site, although no doubt helped too by yet other drawings and surveys. In fact, Palladio apparently followed a similar course of action for his drawings of the Temple of Castor and Pollux in Naples. His depiction of the façade, later adapted for his Book Four,<sup>162</sup> is seemingly related to a pair of late drawings by Ligorio,<sup>163</sup> but Ligorio's plan (or one very like it),<sup>164</sup> which shows a square interior attached to a rear rotunda, was evidently rejected from inclusion in the *Quattro libri*, seeing that the arrangement is discussed by Palladio, who implied he had inspected the building for himself, before he dismissed the arrangement as implausible.<sup>165</sup>

From these various examples, therefore, it seems indisputable that Palladio was in occasional dialogue with Ligorio with regard to buildings and sites of mutual interest or current topicality.<sup>166</sup> What also becomes apparent, however, is that Palladio was rarely if ever indebted solely to Ligorio, even though he may have sometimes made use of material supplied by him when devising reconstructions of his own. It may even be that their roles were occasionally reversed, Palladio recording a particular site before it was then re-examined by Ligorio,<sup>167</sup> as may have been the case with the plans they both produced of the Temple of Hercules Victor near Tivoli. Palladio's plan (Fig. 28 b),<sup>168</sup> perhaps produced on a visit to Tivoli in 1547,<sup>169</sup> was probably informed by a detailed and extensive survey conducted previously by Antonio da Sangallo and his assistants, and known from

several surviving studies (Fig. 28 a).<sup>170</sup> On this basis, Palladio simply made a few amendments, including sketching in some flights of steps at the very bottom, and may have taken various new measurements. An initial plan by Ligorio (Fig. 28 c),<sup>171</sup> who spent much time at Tivoli after 1550,<sup>172</sup> is seemingly related but shows the state of knowledge at a subsequent moment, in that it now includes a concave staircase and other flights at the bottom, features partly confirmed by modern-day archaeology; and these also appear in a second plan of the site Ligorio produced at an even later date, which includes further elements and modifications.<sup>173</sup> In this instance, therefore, there is no good reason to connect Palladio's initial drawings with Ligorio, and it instead appears more than possible that Ligorio was aware of Palladio's earlier interest in the site. In any event, both of them were following the same well-established practice of basing their new initiatives on the achievements of the past.

Examples such as these show that Palladio was operating in a continuum of gradually increasing knowledge of the antique. In fact, his drawings can be regarded as providing a 'snapshot' of the point that this progress had made by the late 1540s or early '50s, and so just before it began to grind to a halt in the wake of the new architectural directions championed by Michelangelo from around the mid-century. In other words, Palladio's drawings of temples, baths and other edifices – even despite all their shortcomings – map out the extent of the knowledge of ancient buildings of Rome and its environs at this particular moment in time, and do so far more informatively than the surviving drawings of Roman architects from this period. This being the case, they also provide new insight into certain initiatives from around this period that remain clouded in obscurity. Such initiatives include those emanating from the *Accademia Romana* (often referred to as the *Accademia Vitruviana* or *della Virtù*),<sup>174</sup> a body that had connections with Antonio da Sangallo and younger figures including Labacco and Ligorio,<sup>175</sup> and which, according to Vasari,<sup>176</sup> had commissioned Jacopo Barozzi da Vignola (1507–73), at some point around 1540, 'to measure entirely all the antiquities of Rome', albeit with few, if any, confirmable results. Soon afterwards, the *Accademia* announced its intention to embark on an even more ambitious enterprise, this being set out in a letter of 1542 (published in 1547) composed by its founding luminary, the Sienese humanist Claudio Tolomei (c. 1492–1556),<sup>177</sup> a figure who moved in the same intellectual circles as Palladio's early mentor and travelling companion, Giangiorgio Trissino.<sup>178</sup> Perhaps reacting to the now-glaring inadequacies of the Serlio compendium, with its limited and erratic coverage of temples and other antiquities, Tolomei detailed the society's aspirations to compile an exhaustive *corpus* of ancient art that would be largely focused on works of architecture, and would include new and improved editions of Vitruvius, in both Latin and Italian, and a comprehensive coverage, in plan and elevation, of ancient buildings from both Rome and elsewhere; and this could well have sparked Palladio's wish to press ahead with his own publication.<sup>179</sup> Otherwise, Tolomei's initiatives in these fields would again appear to have been little fulfilled by the time the *Accademia* was disbanded in 1545,<sup>180</sup> although such interests were still kept alive by the foundation, in 1542, of the *Compagnia dei Virtuosi al Pantheon* by figures including Antonio and Giovanni Battista da Sangallo and Labacco.<sup>181</sup> Their activities, like those of the *Accademia Romana*, were undoubtedly very well known to Palladio, except that he now aimed to complete what had remained unaccomplished, while assimilating and distilling all that had been so far achieved.

The implications of all this are several. It appears extremely likely that Palladio's site-based drawings, especially those of baths finalised in 1550 or perhaps 1554, subsumed the fruits of all the surveys made previously, which would have included – presuming there were some – any connected with

the *Accademia Romana*. It then follows that his plans of the Baths of Caracalla and above all the Baths of Trajan, which were later improved upon, were supplemented in their coverage by findings made after 1550, or perhaps even 1554, which would mean that the surveys recorded in the Codex Destailleur D were not directly dependent (as it has been proposed) on the *Accademia's* 1542 initiative but belong to a later period.<sup>182</sup> This aside, it also seems very clear that Palladio's ambitions in assembling such an extensive body of material were motivated by a desire to surpass even the *Accademia's* aspirations, whilst eclipsing the competing ambitions of figures such as Labacco, who may have been considering enlarging the coverage of his 1552 publication,<sup>183</sup> and especially those of Palladio's up-and-coming rival Ligorio. As it turned out, Palladio managed to bring to press at least a part of what he had envisaged, and his Book Four can thus be regarded as the most significant outcome of the *Accademia's* aims in this field, just as Barbaro's editions of Vitruvius, issued not only in Italian but also in Latin with their accompanying illustrations by Palladio, can be similarly seen as a belated realisation of the society's original aspirations.

In the final reckoning, the ultimate significance of Palladio's drawings and illustrations of ancient buildings is that they are testimony to the seriousness Palladio continued to attach to the study of antiquity during the period after the death of Antonio da Sangallo, and at a time when Michelangelo and many other architects had turned their backs on such priorities. Through his own sheer hard work, as well as by exploiting a well-established culture of utilising the drawings of contemporaries and predecessors, Palladio was able to assemble a truly enormous body of material – even despite his misrepresentation of his working practices: for the consequent exaggeration of his achievements served to make his already Herculean efforts appear all the greater, and helped ensure that his standing and authority would be maximised. In fact, by the time he published the *Quattro libri*, few were still alive who could contradict this version of his on-site activities. He may have expected posterity to accept his claims, but he may have also been far-sighted enough to realise that his achievements, and the ways in which he presented them, would help guarantee his subsequent fame, whilst also nurturing some faint hope that they might provide a basis for the architectural directions of the future.

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#### Notes

<sup>1</sup> A. Palladio, *Lantichita di Roma*, Rome 1554, preface: 'ancho ho voluto vedere, et con le mie proprie mani misurare minutamente il tutto.'

<sup>2</sup> A. Palladio, *I quattro libri dell'architettura*, Venice 1570, p. 3: '... ma mi son trasferito ancora spesse volte in Roma, & in altri luoghi d'Italia, e fuori, dove con gli occhi proprij ho veduto, & con le proprie mani misurato i fragmenti di molti edificij antichi, iquali sendo restati in piedi fino à nostri tempi con maraviglioso spettacolo ....'

<sup>3</sup> Palladio (as in n. 2), I, p. 5: '& ritrovandole di molto maggiore osservatione degne, ch'io no[n] mi haveva prima pensato, cominciai à misurare minutissimame[n]te con somma diligenza ciascuna parte loro, delle quali tanto divenni sollecito investigatore, no[n] vi sapendo conoscer cosa, che co[n] ragione, & con bella proportione non fusse fatta, che poi non una, ma più e più volte mi son trasferito in diverse parti d'Italia, & fuori per potere intieramente da quelle, quale fusse il tutto, comprendere, & in disegno ridurlo.'

<sup>4</sup> Palladio (as in n. 2), IV, p. 3: 'io son per dimostrar in questo libro la forma, e gli ornamenti di molti Tempij antichi, de quali ancora si veggono le ruine, e sono da me stati ridotti in disegno, accioche si possa da ciascuno conoscere con qual forma si debbiano, & con quali ornamenti fabricar le chiese. Et benché di alcuni di loro se ne veggia picciola parte in piede sopra terra, io nondimeno da quella picciola parte, considerate ancho le fondamenta, che si sono potute vedere, sono andato conietturando quali dovessero essere, quando erano intieri. ... Ma quanto à gli ornamenti, cioè base, colonne, capitelli, cornici, e cose simili, non vi ho posto alcuna cosa del mio, ma sono stati misurati da me con somma consideratione da diversi fragmenti ritrovati ne' luoghi, ove erano essi Tempij.'

<sup>5</sup> The sheets in the R. I. B. A. collection (now located in London's Victoria and Albert Museum) and in Vicenza's Palladio Museum (formerly Museo Civico) are catalogued in G. G. Zorzi, *I disegni delle antichità di Andrea Palladio*, Venice 1959; and H. Spielmann, *Andrea Palladio und die Antike: Untersuchung und Katalog der Zeichnungen aus seinem Nachlass*, Munich 1966. Those in Vicenza are also catalogued in L. Puppi, *Palladio: corpus dei disegni al Museo Civico di Vicenza*, Milan 1989. For discussion of Palladio's drawings after the antique, see in particular H. Burns, 'I disegni del Palladio', *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio*, XV, 1973, pp. 169–91; H. Burns, 'I disegni', in *Mostra del Palladio: Vicenza, Basilica Palladiana*, ed. R. Cevese, Milan 1973, pp. 133–54. For their number, see below §p.3§.

<sup>6</sup> For Gualdo's 1616 biography, see P. Gualdo, 'Vita di Andrea Palladio', ed. G. G. Zorzi, *Saggi e Memorie di storia dell'arte*, II, 1958–59, pp. 91–104. See also Zorzi (as in n. 5), pp. 17–23; G. Beltramini and E. Demo, 'Nuovi documenti e notizie riguardanti Andrea Palladio, la sua famiglia e il suo lavoro', *Annali di architettura*, XX, 2008, pp. 125–39 (128–30).

<sup>7</sup> Palladio (as in n. 2), I, p. 6. Elsewhere, Palladio referred explicitly to a future book on baths (ibid., III, p. 45) and others on arches (ibid., I, p. 19) and amphitheatres (ibid., IV, p. 98). The projected book on baths was published in part by Lord Burlington in 1730 (see below p. §10§). Palladio's original intention seems to have been to produce one book on modern architecture and another on ancient architecture in general; see ibid., I, pp. 12, 49 and 52; G. Vasari, *Le vite de' più eccellenti pittori, scultori ed architettori*, ed. G. Milanesi, 9 vols, Florence, 1878–85, VII, p. 531; Gualdo (as in n. 6), pp. 93–94. Examples of ancient bridges are included in Palladio (as in n. 2), III, pp. 21–30.

<sup>8</sup> P. De l'Orme, *Le Premier Tome de l'architecture*, Paris 1567, fol. 131: '& trouvé plusieurs fois mesurant divers édifices antiques, ainsi que ie faisois ordinairement avec grand labeur, frais & despens, selon ma petite portée, tant pour les eschelles & cordages, que pour faire fouiller les fondements, à fin de les cognoistre. Ce que ie ne pouvois faire sans quelque nombre d'hommes qui me suyvoient, les uns pour gagner deux lules ou Carlins le iour, les autres pour apprédre, comme estoient ouvriers, menuisiers, scarpelins ou sculpteurs & semblables qui desiroient cognoistre comme ie faisois, & participer du fruit de ce que ie mesurois.' See also Y. Pauwels, 'Les Antiques romains dans les traités de Philibert De l'Orme et Jean Bullant', *Mélanges de l'École Française de Rome: Italie et Méditerranée*, CVI, 1994, pp. 531–47.

<sup>9</sup> Past writers have simply presumed that Palladio undertook a great deal of surveying work himself: see in particular G. De Angelis D'Ossat, 'Invito allo studio dei "Disegni delle Antichità"', *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio*, XXI, 1979, pp. 41–53 (46–47); and H. Burns in *Palladio*, ed. G. Beltramini and H. Burns, London 2008, pp. 288–91. They have also assumed that freehand and swiftly-executed sketches are on-site records rather than copies of earlier drawings: ibid., pp. 59–60. Burns has observed (ibid., p. 292; see also idem, 'I disegni', as in n. 5, p. 137) that four surviving sheets indicate compass bearings, these being R. I. B. A., Palladio IX, 13<sup>v</sup> and X, 16 (Temple of Hercules Victor at Tivoli), as well as Palladio XII, 22<sup>v</sup> (theatre in Verona) and Palladio XIV, 4<sup>v</sup> (plan of the Imperial Forums), and has argued that they must relate to surveying activities having taken place. These surveys, however, may well have been past exercises on which the Palladio drawings were based.

<sup>10</sup> Mostly catalogued in A. Bartoli, *I monumenti antichi di Roma nei disegni degli Uffizi di Firenze*, 6 vols, Florence 1914–24. Others are to be found in O. Vasori, *I monumenti antichi in Italia nei disegni degli Uffizi*, Rome 1980.

<sup>11</sup> Burns argued that the handwriting of these early drawings, which are perspectival rather than orthogonal, is Palladio's, and this is now agreed, and he also proposed that they are probable copies of drawings produced by earlier figures; see Burns, 'I disegni del Palladio' (as in n. 5), pp. 169–71; and idem, 'I disegni' (as in n. 5), p. 135.

<sup>12</sup> See n. 9 above. An alternative view stressing Palladio's recourse to earlier drawings was piloted in D. Hemsoll, 'Palladio e il tempio antico autentico nelle illustrazioni dei "Quattro Libri"', in *Palladio, 1508–2008: il simposio del cinquecentenario*, ed. F. Barbieri and D. Battilotti, Venice 2008, pp. 144–49.

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<sup>13</sup> Numbers estimated from the 243 sheets in the R. I. B. A. collection (as tabulated in Lynda Fairbairn's handlist there) and the 32 sheets now in Vicenza's Palladio Museum (as catalogued in Puppi (as in n. 5), and from Spielmann's concordance (as in n. 5, pp. 180–82) which lists 209 sheets showing antiquities in the R. I. B. A. and Vicenza collections, although this does not include the handful of further sheets discovered subsequently.

<sup>14</sup> The Sangallo sheets in the Uffizi published by Bartoli (as in n. 10), III, and Vasori (as in n. 10) amount to 151 in total; the 117 sheets by Peruzzi are collected together by H. Wurm, *Baldassarre Peruzzi: Architekturzeichnungen*, Tübingen 1984.

<sup>15</sup> Vasari (as in n. 7), V, 264; IV, 154; V, 319; VI, 317; VI, 341, and V, 552.

<sup>16</sup> Surviving output of this kind is minimal. The 'Palladio' material deposited at the R. I. B. A. in London includes, for example, a sheet by Raphael showing details of the Pantheon: Palladio XIII, 1 (Zorzi, as in n. 5, p. 105) and another by a French hand (XI, 21; *ibid.*, p. 106). A sixteenth-century book of drawings now in St Petersburg bears an old inscription claiming it once belonged to Palladio: see O. Lanzarini and R. Martinis, *'Questo libro fu di Andrea Palladio': Il codice Destailleur B dell'Ermitage*, Rome 2015, pp. 37–42 and 66. Palladio's copy of Serlio's treatise (S. Serlio, *Libro primo[-quinto] d'architettura*, Venice 1559–62) survives in the Kunsthistorisches Institut in Florence; see e.g. *Palladio* (as in n. 9), pp. 332–33.

<sup>17</sup> Akin to the comparative material highlighted in the article.

<sup>18</sup> The drawings gathered together by the Census of Antique Works of Art and Architecture Known in the Renaissance on its website ([www.census.de](http://www.census.de)) number almost 22,000 (although there can be several on an individual sheet).

<sup>19</sup> A detailed analysis of the *Quattro libri* illustrations has never been attempted.

<sup>20</sup> A. Labacco, *Libro appartenente a l'architettura*, ed. Rome 1559, fols 7–15. Palladio's coverage of this building is very similar (Palladio, as in n. 2, IV, pp. 15–22), and closely comparable as well to the presentations of many other temples covered in Book Four.

<sup>21</sup> Such omissions would include the Temple of Hercules at Cori and the so-called 'Temple of Piety' (nowadays known as the South Temple of the Forum Holitorium), which Serlio (S. Serlio, *Tutte l'opere d'architettura, et prospetiva*, Venice 1619, III, fols 59'–60) and Labacco (as in n. 20), fols 23–25) had both included. In the case of the latter, Palladio even produced drawings and trial plates in preparation for the *Quattro libri* (London, R. I. B. A., Palladio VIII, 15, Palladio IX, 5 and Palladio XI, 6; Zorzi, as in n. 5, p. 79; see also F. Lemerle, 'À Propos des trois planches de Palladio insérées par Fréart de Chambray dans sa traduction des Quattro Libri', *Annali di architettura*, IX, 1997, pp. 93–96). In the end, however, he may have rejected both buildings because he did not have enough sufficiently detailed information about them.

<sup>22</sup> The Vicentine foot is rather larger than the Roman foot (both ancient and modern) and measures around 0.36m; see A. Martini, *Manuale di metrologia ossia misure, pesi e monete in uso attualmente e anticamente presso tutti i popoli*, Turin 1883, p. 823. See Palladio (as in n. 2), II, p. 4, and IV, p. 10.

<sup>23</sup> A. Desgodetz, *Les Édifices antiques de Rome*, Paris 1683, *passim*.

<sup>24</sup> Palladio (as in n. 2), IV, p. 85 ('Temple of Bacchus'). He gave the impression of having closely inspected the building at first hand by making astute observations about its carved architectural decorations (*ibid.*, IV, p. 86).

<sup>25</sup> Serlio (as in n. 21), III, fol. 57. For discussion of Palladio's plan, see Desgodetz (as in n. 23), p. 63. For discussion of yet other such plans of S. Costanza, see T. Buddensieg, 'Criticism of Ancient Architecture in the Sixteenth and Seventeenth Centuries', in *Classical Influences on European Culture, A.D. 1500–1700*, ed. R. R. Bolgar, Cambridge 1976, pp. 335–48 (340–42).

<sup>26</sup> Vienna, Albertina, Egger 102 (H. Egger, *Kritisches Verzeichnis der Sammlung architektonischer Handzeichnungen der K.K. Hof-Bibliothek*, Vienna 1903, p. 34; S. Valori, *Disegni di antichità dell'Albertina di Vienna*, Rome 1985, pp. 175–77).

<sup>27</sup> For perspectival and orthogonal representation in Palladio's drawings, see e.g. Burns, 'I disegni' (as in n. 5), p. 135.

<sup>28</sup> Palladio (as in n. 2), IV, pp. 12–13.

<sup>29</sup> It is possible that these additional areas were originally suggested by the space between the extant northern portion of the building and the retaining wall behind it; see e.g. *Lexicon topographicum urbis Romae*, ed. E. M. Steinby, 6 vols, Rome 1993–2000, I, p. 409, figs 95–96. This same wall is shown on the early plan of the building in the Codex Coner (no. 16); see T. Ashby, 'Sixteenth-Century Drawings of Roman Buildings Attributed to Andreas Coner', *Papers of the British School at Rome*, 2 (1904), pp. 1–96 (17).

<sup>30</sup> Desgodetz (as in n. 23), pp. 106 and 108.

<sup>31</sup> London, R. I. B. A., Palladio XV, 3 and I, 4 (plan and internal elevation; Zorzi, as in n. 5, p. 78). For some reason, Palladio's elevation is reversed in orientation.

<sup>32</sup> E.g. Codex Coner, no. 59 (Ashby, as in n. 29) p. 36; Vienna, Albertina, Egger 9 (Egger, as in n. 26, p. 18; Valori, as in n. 26, pp. 102–05).

<sup>33</sup> Thus the lower arches at the backs of the aisles rise from floor level rather than above, as already shown in the Codex Coner elevation and as seen in reality.

<sup>34</sup> As seen, for example, in the number of recesses at the back of the central alcove, which is far fewer (three) than in reality (nine) and early drawings such as the plan in the Codex Coner (no. 16; Ashby, as in n. 29, p. 17).

<sup>35</sup> The images published by Serlio (as in n. 21, III, fol. 58<sup>v</sup>–59) are also in several respects more accurate.

<sup>36</sup> London, R. I. B. A., Palladio VII, 5v (Zorzi, as in n. 5, p. 78).

<sup>37</sup> Vicenza, Palladio Museum, D30 reunited with D7v (Zorzi, as in n. 5, p. 74).

<sup>38</sup> For a good modern-day plan, see M. Agostinelli *et al.*, *Roma: archeologia nel centro*, 2 vols, Rome 1985, I, p. 235 fig. 1.

<sup>39</sup> London, R. I. B. A., Palladio XI, 9 and 19v (Zorzi, as in n. 5, p. 74); Vicenza, Palladio Museum, D21 (*ibid.*).

<sup>40</sup> Palladio (as in n. 2), IV, pp. 23–29.

<sup>41</sup> Florence, Uffizi, A1123 (Bartoli, as in n. 10, III, fig. 463, and VI, p. 86).

<sup>42</sup> London, R. I. B. A., Codex Rootstein-Hopkins (formerly Codex Stosch), fol. 22 (illustrated in I. Campbell and A. Nesselrath, 'The Codex Stosch: Surveys of Ancient Buildings by Giovanni Battista da Sangallo', *Pegasus, Berliner Beiträge zum Nachleben der Antike*, VIII, 2006, pp. 9–90 (87)).

<sup>43</sup> At fifteen bays in length, Palladio's version of the forum has the neat proportions of 1:3.

<sup>44</sup> Sallustio's drawings of antiquaries are undated, and his life in the years after his father's death is very poorly documented. For this period of his life, see W. Seidel, *Salustio Peruzzi (1511/12–1572): Vita und zeichnerisches Oeuvre des römischen Architekten; eine Spurensuche*, Munich 2002, pp. 23–27.

<sup>45</sup> Florence, Uffizi, A648 (Bartoli, as in n. 10, IV, fig. 707, and VI, p. 124).

<sup>46</sup> Codex Barberini, fols 10, 15, 63<sup>v</sup>, 65, 65<sup>v</sup> (the plan) and 68<sup>v</sup> (all reproduced in C. Hülsen, *Il libro di Giuliano da Sangallo: codice vaticano Barberiniano latino 4424*, 2 vols, Leipzig 1910). These and many of the drawings executed by later architects are discussed in C. Brothers, 'Reconstruction as Design: Giuliano da Sangallo and the "Palazzo di Mecenate" on the Quirinal Hill', *Annali di Architettura*, XIV, 2002, pp. 55–72.

<sup>47</sup> Florence, Uffizi, A1681 (Bartoli, as in n. 10, I, fig. 97, and VI, p. 23; Francesco da Sangallo); Uffizi, A4381 (*ibid.*, V, fig. 727 and VI, p. 126; attributed to Bartolommeo Ammannati); Serlio (as in n. 21), III, fol. 86<sup>v</sup>. Like Sangallo, Serlio believed the building to have been a palace.

<sup>48</sup> For recent discussion of the staircases, parts of which still survive, see A. Spila, 'Palladio e Antonio da Sangallo il Giovane sul grande tempio del Quirinale', *Annali di architettura*, XXIX, 2017, pp. 135–42; *idem*, 'The Double Staircase of the Temple of Serapis on the Quirinal Hill: Fame and Oblivion in the Early Modern Period', *Pegasus, Berliner Beiträge zum Nachleben der Antike*, XVIII–XIX, 2018, pp. 39–71.

<sup>49</sup> Palladio (as in n. 2), IV, p. 41 ('Temple of Jupiter').

<sup>50</sup> Much of the remaining material had been removed for the construction of the Cancelleria and Palazzo Farnese; see Brothers (as in n. 46), pp. 55–56.

<sup>51</sup> The allusion (Palladio, as in n. 2, IV, p. 41) to Vitruvius's 'pseudodipteral' temple (Vitruvius, *De architectura*, Book III, chapter 2, 1 and 6) is conveyed by the expression *falso alato* (see A. Palladio, *The Four Books of Architecture*, ed. and trans., R. Tavernor and R. Schofield, Cambridge, Ma., 1997, p. 373 n. 89). This type of temple has space on either side for two rows of columns, but has the inner rows omitted.

<sup>52</sup> Reference to the 'hypæthral' temple, likewise mentioned by Vitruvius (*De architectura*, Book III, chapter 2, 1 and 8) follows from Palladio's conclusion that the interior was uncovered. Both types are illustrated in Barbaro's Vitruvius (*I dieci libri dell'architettura di M. Vitruvio*, Venice 1556, pp. 85 and 74); and they were previously drawn by Giovanni Battista da Sangallo in the copy of Vitruvius annotated in his hand; see Vitruvius, *Ten Books on Architecture: the Corsini Incunabulum*, ed. I. D. Rowland, Rome 2003, pp. 62 and 64.

<sup>53</sup> Zorzi was the first to surmise that Barbaro was one of the 'Venetian gentlemen friends' who, according to Gualdo (as above n. 6), accompanied Palladio on his 1554 visit to Rome; see Zorzi (as in n. 5), p. 22.

<sup>54</sup> Palladio probably discussed the matter, too, with Giovanni Battista da Sangallo; see n. 52 and 66.

<sup>55</sup> London, R. I. B. A., Palladio XI, 23; other studies: Palladio XI, 23v, 24 and 24v (Zorzi, as in n. 5, p. 75).

<sup>56</sup> For the *Quattro libri*, the cella was reduced in length and the interior was simplified.

<sup>57</sup> Florence, Uffizi, Codex Strozzi, A1586 (Bartoli, as in n. 10, I, fig. 138, and VI, p. 29). The drawing was attributed by Bartoli to Antonio da Sangallo the Elder but the handwriting is not his; see e.g. P. Zampa, 'Il Codice Strozzi: alcune considerazioni', *Opvs incertvm*, III, 2008, pp. 64–75. The subject is identified in an annotation as the 'palazzo di mecenate', the name also used by Giuliano da Sangallo (as above n. 46). The half of the façade that is shown is articulated with what are referred to as pilasters. The early sixteenth-century



Codex Coner shows the building likewise with a pedimented frontage the equivalent of twelve pilasters wide (no. 64; Ashby, as in n. 29, p. 37).

<sup>58</sup> F. Benelli, 'Antonio da Sangallo il Giovane, Palladio, il tempio pseudodiptero vitruviano e il frontespizio di Montecavallo', *Annali di architettura*, XXIX, 2017, pp. 117–26 (especially pp. 118–21). The drawing is Uffizi A1120 (Bartoli, as in n. 10, III, fig. 444, and VI, p. 83); and Sangallo's comment (found in a marginal annotation to a printed edition of Vitruvius) establishes that he believed the building to be specifically of pseudodipteral format.

<sup>59</sup> Florence, Uffizi, A664 (ibid., IV, fig. 678, and VI, p. 120).

<sup>60</sup> Also suggested by the sheet's heterogeneous contents.

<sup>61</sup> The best evidence for such interiors was provided by the Temple of Mars Ultor, which features in illustrations by both Palladio and Labacco (see n. 20) and the Temple of Venus and Rome (Palladio, as n. 2, IV, pp. 37–38: 'Temple of the Sun and Moon').

<sup>62</sup> Palladio (as in n. 2), IV, 68 ('Temple of Jupiter Stator').

<sup>63</sup> London, R. I. B. A., Codex Rootstein-Hopkins, fol. 19<sup>v</sup> (Campbell and Nesselrath, as in n. 42, p. 82). The building was also shown in this way by Pirro Ligorio: Turin, Archivio di Stato, Ligorio Antichità XV, fol. 140<sup>v</sup>.

<sup>64</sup> Palladio (as in n. 2), IV, pp. 16 (identified correctly), 56 ('Temple of Mars'), 71 ('Temple of Jupiter Tonans') and 129 ('Temple of Neptune'). Ironically, a prominent temple which had a stylobate, the Temple of Venus and Rome, is not illustrated in the *Quattro libri* in this manner (IV, p. 37).

<sup>65</sup> Ibid., IV, p. 70.

<sup>66</sup> The Palladio plan is indebted to previous restorations of the kind proposed by Antonio da Sangallo: Florence, Uffizi, A1140 (Bartoli, as in n. 10, III, fig. 474, and VI, p. 89). Another very similar plan was produced by Giovanni Battista da Sangallo: London, R. I. B. A., Codex Rootstein-Hopkins, fol. 15v (Campbell and Nesselrath, as in n. 42, p. 74).

<sup>67</sup> Palladio evidently realised that the building had eight frontal columns, but he concluded that it was much longer than in reality.

<sup>68</sup> Palladio (as in n. 2), IV, 128. Labacco had produced a rather different reconstruction: Labacco (as in n. 20), fols 33–36.

<sup>69</sup> Palladio (as in n. 2), IV, pp. 31–34.

<sup>70</sup> E.g. Florence, Uffizi, A1166<sup>v</sup> (Bartoli, as in n. 10, III, fig. 477, and VI, pp. 89–90: Antonio da Sangallo); London, R. I. B. A., Codex Rootstein-Hopkins, fol. 9 (Campbell and Nesselrath, as in n. 44, p. 61: Giovanni Battista da Sangallo).

<sup>71</sup> The arrangement is also shown in a drawing: London, R. I. B. A., Palladio XI, 15<sup>v</sup> (Zorzi, as in n. 5, p. 75).

<sup>72</sup> Palladio (as in n. 2), IV, p. 30. The remains he saw were presumably those of the Regia, which was located a short distance to the front of the temple.

<sup>73</sup> Ibid., IV, pp. 76–78.

<sup>74</sup> Published by Antonio Lafreri. It was perhaps supposed that such a surface could have been created out of stucco.

<sup>75</sup> As disproved by Desgodetz (as in n. 23, *passim*).

<sup>76</sup> Palladio (as in n. 2), IV, p. 93.

<sup>77</sup> Vicenza, Palladio Museum, D4<sup>v</sup> (Zorzi, as in n. 5, p. 83).

<sup>78</sup> As are the bases which have fillets instead of scotias, although these are represented correctly. For the correct forms of the fluting and capitals, see Desgodetz (as in n. 23), p. 91). The capital design was also recorded much more accurately by Antonio da Sangallo: Florence, Uffizi, A1216 (Vasori (as in n. 10), pp. 140–42); and by Sallustio Peruzzi: Uffizi A666v (ibid., 162–63). Palladio also misrepresented the frieze, showing it as being pulvinated rather than vertically faced.

<sup>79</sup> Serlio, *Tutte l'opere*, III, fol. 60<sup>v</sup>; Vienna, Albertina, Egger 283 (Egger, as in n. 26, pp. 71–72; Valori, as in n. 26, pp. 72–74).

<sup>80</sup> Palladio (as in n. 2), IV, p. 20.

<sup>81</sup> Ibid., IV, p. 15; translation: idem, *The Four Books*, p. 225.

<sup>82</sup> Labacco, *Libro appartenente*, fol. 13. The correct shape of the capital is meticulously recorded in a drawing by Peruzzi: Florence, Uffizi, A632<sup>v</sup>/33<sup>v</sup>; Bartoli (as in n. 10), II, fig. 320, and VI, pp. 57–58); see also Desgodetz (as in n. 23), p. 141).

<sup>83</sup> Palladio (as in n. 2), IV, p. 69.

<sup>84</sup> Ibid., IV, 67; translation: idem (as in n. 51), p. 279.

<sup>85</sup> Labacco (as in n. 20), fol. 20; De l'Orme (as in n. 8), fols 192 and 194. Peruzzi had been of much the same opinion; see G. Clarke, "La piu bella e meglio lavorata opera": Beauty and Good Design in Italian Renaissance

Architecture', in *Concepts of Beauty in Renaissance Art*, ed. F. Ames-Lewis and M. Rogers, Aldershot 1998, pp. 107–23.

<sup>86</sup> Desgodetz (as in n. 23), p. 129.

<sup>87</sup> Labacco (as in n. 20), fol. 21; Serlio (as in n. 21), IV, fol. 185; De l'Orme (as in n. 8), fol. 194<sup>v</sup>; Uffizi, A478/631 (Bartoli, as in n. 10, II, fig. 320, and VI, p. 59; Peruzzi).

<sup>88</sup> Palladio (as in n. 2), IV, p. 23; translation: idem (as in n. 51), p. 233.

<sup>89</sup> Idem (as in n. 2), IV, p. 28.

<sup>90</sup> See Desgodetz (as in n. 23), p. 141; cf. Palladio (as in n. 2), IV, p. 20.

<sup>91</sup> Desgodetz (as in n. 23), p. 85; cf. Palladio (as in n. 2), IV, p. 54. The capitals actually come in a range of designs; see F. Rakob and W.-D. Heilmeyer, *Der Rundtempel am Tiber in Rom*, Mainz am Rhein 1973.

<sup>92</sup> See e.g. *Palladio* (as in n. 9), pp. 328–41.

<sup>93</sup> J. Poldo d'Albenas, *Discours historial de l'antique et illustre cité de Nismes*, Lyon 1559. See F. Lemerle, 'Jean Poldo d'Albenas (1512–1563): un antiquaire "studieux d'architecture"', *Bulletin Monumental*, CLX–CLXII, 2002, pp. 163–72.

<sup>94</sup> Palladio (as in n. 2), IV, pp. 112–17 (the Maison Carrée); and IV, 119–23 (the structure later known as the 'Temple of Diana'). The illustrations are revised from perspectival to orthogonal representation and are differently assembled.

<sup>95</sup> Richard Lord Burlington, *Fabbriche antiche diseguate da Andrea Palladio vicentino*, London 1730, preface: *Aveano questi avuto l'ultima mano, ed erano insieme avvolti come già pronti a farne edizione.*

<sup>96</sup> Palladio's final plan: Vicenza, Palladio Museum, D33 (Zorzi, as in n. 5, p. 72). This drawing was parted from Palladio's other final plans of bath complexes and was not included in Burlington's publication. It was, however, rediscovered in time to be added to the revised version of Burlington's book published towards the end of the century (O. Bertotti Scamozzi, *Le terme dei Romani diseguate da Andrea Palladio*, Vicenza 1785); see G. G. Zorzi, 'I disegni palladiani delle antichità pubblicati da Lord Burlington e le loro deficienze e arbitrarietà', *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio*, VII (2), 1965, pp. 153–62. Of Palladio's various other plans of this complex (see Zorzi, as in n. 5, pp. 71–72), which in his mind also included the Pantheon, only one (London, R. I. B. A., Palladio IX, 14v) includes the remnants of baths to the south that still partly survive; see e.g. *Lexicon topographicum urbis Romae* (as in n. 29), I, p. 425 fig. 119 and p. 429 fig. 122a; and V, pp. 40–42 and p. 324 fig. 26.

<sup>97</sup> Annotation to London, R. I. B. A., Palladio I, 8 (Zorzi, as in n. 5, p. 65): *queste terme sono per mezzo el Colixeo e sono molto ruinate.*

<sup>98</sup> This is the drawing relating to the elevations, and it was likewise given precedence by Burlington, the other plan being included only at the end of his book. For a modern survey plan of the baths shown in relation to the 'footprint' of Palladio's, which indicates that almost nothing survives today, see *Lexicon topographicum urbis Romae* (as in n. 29), V, pp. 66–67 and p. 336 fig. 44. See also Agostinelli *et al.* (as in n. 38), II, p. 471–72 figs 4–5.

<sup>99</sup> R. I. B. A., Palladio II, 1; 2 (previously catalogued as I, 8) and VIII, 12<sup>v</sup> (Zorzi, as in n. 5, pp. 65–66 and 60).

<sup>100</sup> The arcading of the frontal steps is recorded in an early sixteenth-century drawing: Florence, Uffizi, A1536 (Bartoli, as in n. 10, I, fig. 77, and VI, p. 19).

<sup>101</sup> Similar to those featured in Palladio's plans of the Baths of Agrippa.

<sup>102</sup> The plan's oddly trapezoidal shape, for example, is not easily accounted for.

<sup>103</sup> London, R. I. B. A., Palladio III, 1 (Zorzi, as in n. 5, p. 66).

<sup>104</sup> London, R. I. B. A., Palladio XIV, 4<sup>v</sup> (*ibid.*, p. 66).

<sup>105</sup> Florence, Uffizi, 3931A (Bartoli, as in n. 10, I, fig. 93, and VI, p. 22). That this is a copy drawing is clear from the fact it is on oiled paper.

<sup>106</sup> See e.g. Agostinelli *et al.* (as in n. 38), II, p. 396 fig. 1; *Lexicon topographicum urbis Romae* (as in n. 29), V, pp. 60–62 and 333 fig. 39. Palladio may have executed much of the central area (where the walls are not filled with wash) after drawing out the rest of the complex. He also had some way of understanding – possibly aided by yet other previous drawings – the extent and format of the site as a whole and the positioning of various other features within it (such as the ranges at the fronts of the paired courtyards and the extensions beyond the hemicycles at the rear).

<sup>107</sup> London, R. I. B. A., Palladio I, 1 (Zorzi, as in n. 5, p. 66).

<sup>108</sup> For example, the *Lexicon topographicum urbis Romae* (as in n. 29), V, pp. 49–51 and 327 fig. 30) uses the Palladio plan to show the original layout.

<sup>109</sup> New York, Morgan Library, Codex Mellon, fol. 54<sup>v</sup>; Florence, Uffizi, A2001 *bis* (Bartoli, as in n. 10, II, fig. 190, and VI, p. 36); Vienna, Albertina, Egger 176 (Egger, as in n. 26, p. 51; Valori, as in n. 26, pp. 38–41); Serlio (as in

n. 21), III, fol. 92<sup>v</sup>. A partial plan by Peruzzi also survives: Uffizi, A559v (Bartoli, as in n. 10, II, fig. 258, and VI, p. 48).

<sup>110</sup> London, R. I. B. A., Palladio V, 1 (Zorzi, as in n. 5, p. 70). Palladio's drawing is very similar to one produced by Giovanni Battista da Sangallo (Florence, Uffizi, A2163; Bartoli, as in n. 10, IV, fig. 525, and VI, p. 97). For some reason, however, Palladio did not complete the periphery, and he also decided that the courtyards had colonnades running around just three rather than four of their sides, this being rectified in the Burlington publication (noted by E. de Jong, as in n. 129 below).

<sup>111</sup> Serlio (as in n. 23), III, fols 94v–95.

<sup>112</sup> E.g. Codex Coner, no. 8 (Ashby, as in n. 29, p. 14); Vienna, Albertina, Egger 182 (Egger, as in n. 26, p. 52).

This latter plan is related to the survey drawings on antiquities found in the Codex Destailleur D in Berlin (see below n. 117~~147~~).

<sup>113</sup> London, R. I. B. A., Palladio VI, 2 (Zorzi, as in n. 5, p. 68).

<sup>114</sup> Such as a plan by Giovanni Battista da Sangallo (Florence, Uffizi, A1381; Bartoli, as in n. 10, IV, fig. 520, and VI, p. 96).

<sup>115</sup> London, R. I. B. A., Palladio VI, 1 (Zorzi, as in n. 5, p. 68).

<sup>116</sup> Vienna, Albertina, Egger 12 (Egger, as in n. 26, p. 19; Valori, as in n. 26, pp. 111–15). This plan is found in a sketchbook by the 'Anonymous Italian C' which is dated to 1519; see e.g. A. Nesselrath, 'I libri di disegni di antichità: tentativo di una tipologia', in *Memoria dell'antico nell'arte italiana; III: dalla tradizione all'archeologia*, ed. S. Settis, Turin 1986, pp. 89–147 (135–36). For a similar plan, dating from the first half of the sixteenth century and also in Vienna: Egger 170 (Egger, as in n. 26, p. 50; Valori, as in n. 26, pp. 134–36).

<sup>117</sup> Berlin, Kunstbibliothek, Codex Destailleur D, fol. 22 (B. Kulawik, 'Die Zeichnungen im Codex Destailleur D (HDZ 4151) der Kunstbibliothek Berlin', thesis submitted to the Technischen Universität, Berlin (<https://depositonce.tu-berlin.de/handle/11303/796>), pp. 143–50). The book of drawings is named after the nineteenth-century French collector Hippolyte Destailleur who once owned it.

<sup>118</sup> The frontal elevation shown in the Codex Destailleur D (fol. 27v; Kulawik, as in n. 117, pp. 175–80) is, however, reconstructed in a manner resembling the front of the Baths of Diocletian.

<sup>119</sup> Florence, Uffizi, A1160 (Bartoli, as in n. 10, III, fig. 470, and VI, p. 88; Antonio da Sangallo); Vienna, Albertina, Egger 183 (Egger, as in n. 26, p. 52; Valori, as in n. 26, pp. 41–42). These mark just the rough positions of the central *frigidarium* and certain other features.

<sup>120</sup> London, R. I. B. A., Palladio IV, 1 and its near copy Palladio IV, 2 (Zorzi, as in n. 5, p. 67), which differs in just a few very minor particulars. See also below n. 122.

<sup>121</sup> A part plan of the main building followed by various elements of the periphery: Berlin, Kunstbibliothek, Codex Destailleur D, fols 20 and 21–21<sup>v</sup> (Kulawik, as n. 117, pp. 135–42). The various components are assembled into an overall plan in M. Schich, 'L'immagine delle Terme di Traiano nel Codice Destailleur e in altre vedute d'epoca', *Bullettino della Commissione Archeologica Comunale di Roma*, CXI, 2010, pp. 339–52 (342 ill. 6).

<sup>122</sup> Some modern-day plans, however, suggest there is at least some physical evidence for a frontal structure of roughly the shape and size indicated by Palladio; see Agostinelli *et al.* (as in n. 38), II, p. 472 fig. 5.

Nevertheless, the conjectural nature of Palladio's structure in the first version of the plan (R. I. B. A., Palladio IV, 1) may be presumed from it being shown with its walls not filled in with wash unlike most of the rest of the complex.

<sup>123</sup> Baths of Constantine: London, R. I. B. A., Palladio I, 3 (Zorzi, as in n. 5, p. 65); Baths of Titus: Palladio II, 2 (*ibid.*, p. 66); Baths of Nero: Palladio III, 2 (*ibid.*, p. 66); Baths of Trajan: Palladio IV, 3 (*ibid.*, p. 67); Baths of Diocletian: Palladio V, 2 (*ibid.*, p. 70); Baths of Caracalla: Palladio VI, 4 (*ibid.*, p. 68); Baths of Agrippa: Palladio VII, 3 (*ibid.*, p. 72).

<sup>124</sup> See *ibid.*, pp. 64–73.

<sup>125</sup> Serlio (as in n. 21, III, fol. 95) alluded to elevational drawings in his discussion of the Baths of Diocletian, but did not illustrate any on account of their condition, the 'difficulty' in measuring them, and their many 'discords and disorders': '... circa il diritto delqual'io non ho voluto disignare cofa alcuna per tre cagioni. Prima per le gran rovine, che poco d'intero si comprende. Seconda per la difficoltà del misurarle. Terza perche in vero, per quanto si vede quest'edificio non fu fatto a quel felice secolo de'buoni Architettori, anzi si veggono di molte discordanze, & disordini, ma ben grandissima ricchezza di ornamenti.'

<sup>126</sup> Vicenza, Palladio Museum, D32 (Zorzi, as in n. 5, p. 71, but misidentified); and London, R. I. B. A., Palladio V, 3 (*ibid.*). See Burns, 'I disegni del Palladio' (as in n. 5), p. 174.

<sup>127</sup> London, R. I. B. A., Palladio VII, 6 (Zorzi, as in n. 5, p. 72: misidentified).

<sup>128</sup> Another drawing of the back wall is included on R. I. B. A., Palladio XIV, 3<sup>v</sup> (Zorzi, *ibid.*, p. 68).

<sup>129</sup> S. van Noyen, *Thermae Diocletiani Imp. quales hodie etiamnum extant*, Antwerp 1558. For Van Noyen's time in Rome, see K. de Jonge, 'Hieronymus Cock's Antiquity' in *Hieronymus Cock: the Renaissance in Print*, ed. J. van Grieken, Brussels 2013, p. 43. For comprehensive discussion of the Van Noyen publication, see E. de Jong, "'Thermae Diocletiani': Van Noyen's Ambitious Reconstruction of the Baths of Diocletian for Admirers of Architecture and the Antique', Masters thesis, University of London, 2015. Burns connected the early Palladio section of the Baths of Diocletian with the Van Noyen engravings, and argued for a common ancestry; see Burns, 'I disegni del Palladio' (as in n. 5), p. 174; and Howard Burns, in H. Burns, L. Fairbairn and B. Boucher, *Andrea Palladio 1508-1580: the Portico and the Farmyard*, London 1975, pp. 248–49.

<sup>130</sup> Vienna, Albertina, Egger 172–74 (Egger, as in n. 26, pp. 50–51).

<sup>131</sup> See n. 129. Palladio did not, however, take up any of Van Noyen's non-conformist and probably invented detailing, seen on the two sides of the rear *natatio* elevation (and also on the building's side elevation).

<sup>132</sup> This is not shown in the equivalent drawing in the Codex Destailleur D (fol. 41<sup>v</sup>; Kulawik, as in n. 117, pp. 235–37).

<sup>133</sup> See for example the engraved view published by Étienne Dupérac: *I vestigi dell'antichità di Roma*, Rome 1575, fol. 32.

<sup>134</sup> Berlin, Kunstbibliothek, Codex Destailleur D, fol. 41 (Kulawik, as in n. 117, pp. 233–35).

<sup>135</sup> See above n. 3.

<sup>136</sup> See Beltramini and Demo (as in n. 6), pp. 125–26.

<sup>137</sup> London, R. I. B. A., Palladio XII, 18 and 20 (Zorzi, as in n. 5, p. 48).

<sup>138</sup> See D. Hemsoll, 'Drawings by Palladio and Others of the Porta dei Leoni in Verona', *Pegasus, Berliner Beiträge zum Nachleben der Antike*, XVI, 2014, pp. 263–94.

<sup>139</sup> See H. Burns, 'Nota sui disegni cinquecenteschi dei monumenti antichi veronesi', in *Palladio e Verona*, ed. P. Marini, Venice 1980, pp. 83–84 (84).

<sup>140</sup> See W. Lotz: 'Osservazioni intorno ai disegni palladiani', *Bollettino del Centro Internazionale di Studi di Architettura Andrea Palladio*, IV, 1962, pp. 61–68 (61–63).

<sup>141</sup> See L. Puppi and D. Battilotti, *Andrea Palladio*, Milan 1999, p. 266; A. Bruschi, 'Palladio architetto a Roma e la sua attività per l'ospedale di Santo Spirito', in *Studi in onore di Renato Cevese*, ed. G. Beltramini and A. Ghisetti Giavarina, Vicenza 2000, pp. 61–81.

<sup>142</sup> As specified by Gualdo (above n. 6).

<sup>143</sup> See D. Hemsoll, 'Palladio's Architectural Orders: From Practice to Theory', *Architectural History*, LVIII, 2015, pp. 1–54 (26–33).

<sup>144</sup> The importance of Vitruvius for the understanding of ancient remains is emphasised in the *Quattro libri* (Palladio, as in n. 2, I, p. 5 and IV, p. 3).

<sup>145</sup> See above §pp.8–9§§.

<sup>146</sup> For their possible acquaintanceship, see Burns, 'I disegni' (as in n. 5), p. 153. Ligorio appears to have arrived in Rome only in early 1542, and so did not meet Palladio there until after that date; see also D. Coffin, *Pirro Ligorio: the Renaissance Artist, Architect, and Antiquarian*, University Park (Pa), 2004, p. 7. For wider perspectives on Ligorio and Palladio's relations, see Zorzi (as in n. 5), p. 22; and C. Occhipinti, 'Daniele Barbaro, Pirro Ligorio e Andrea Palladio: incontri romani', in *Palladio 1508–2008* (as in n. 11), pp. 109–12.

<sup>147</sup> For further instances, see below n. 166–67.

<sup>148</sup> Vicenza, Palladio Museum, D22 (Zorzi, as in n. 5, p. 81). The building was later redrawn in orthogonal perspective (London, R. I. B. A., Palladio XI, 15; *ibid.*, p. 81) before publication in the treatise (Palladio, as in n. 2, IV, pp. 99–102).

<sup>149</sup> Paris, Bibliothèque Nationale, Codex It. 1129, fol. 399.

<sup>150</sup> As first proposed by Burns ('I disegni', as in n. 5, pp. 136 and 153). The elevational drawings were later redrafted orthogonally in preparation for publication: London, R. I. B. A., Palladio XI, 15 (Zorzi, as in n. 5, p. 81).

<sup>151</sup> Florence, Uffizi, A1162–62<sup>v</sup>; see A. Ghisetti Giavarina, 'Palladio e le antichità dell'Umbria', *Annali di Architettura*, XVIII/XIX, 2006/07, pp. 115–28 (118–22).

<sup>152</sup> The sheet is highly comparable in style to Palladio's early drawings, and so dating it to 1545 or later is problematic.

<sup>153</sup> London, R. I. B. A., Palladio XI, 4 and 4<sup>v</sup> (Zorzi, as in n. 5, p. 100).

<sup>154</sup> Oxford, Bodleian Library, Cod. Canonici Ital. 138, fol. 112–12<sup>v</sup> (P. Ligorio, *Libri di diverse antichità di Roma: Libri VI, X, XI, XII, XIV, XVI, XXXIV, XXXVI*; Oxford, Bodleian Library, Ms. Canonici Ital. 138, ed. I. Campbell, Rome 2016, pp. 294–96). See also T. F. C. Blagg, A. Luttrell and M. Lyttelton, 'Ligorio, Palladio and the Decorated Roman Capital from Le Mura di Santo Stefano', *Papers of the British School at Rome*, XLVII, 1979, pp. 102–16;

and M. Lyttelton, 'Pirro Ligorio's Description of the Villa of Caius Caecilius Near Anguillara: a Case Study in Sixteenth-Century Antiquarian Research', in *Pirro Ligorio, Artist and Antiquarian*, ed. R. W. Gaston, Cinisello Balsamo 1988, pp. 121–58.

<sup>155</sup> This was the conclusion reached already by Zorzi (as in [n. 5](#), p. 29), who noted that the handwriting was consistent with a later period; and by Burns ('i disegni del Palladio', as in [n. 5](#), p. 173). It is perhaps further supported by the fact that Ligorio's plan records the stairs a little more accurately than Palladio's (oral communication from Ian Campbell).

<sup>156</sup> See e.g. D. Hemsoll, in I. Campbell, *Ancient Roman Topography and Architecture*, 3 vols, London 2004, II, pp. 675–89; and J. M. Merz, *Das Heiligtum der Fortuna in Palestrina und die Architektur der Neuzeit*, Munich 2001, pp. 62–83.

<sup>157</sup> London, R. I. B. A., Palladio IX, 1 and 5 (Zorzi, as in [n. 5](#), p. 85).

<sup>158</sup> The surviving Ligorio drawings are Turin, Archivio di Stato, Ligorio Antichità XIV, fol. 95 (elevation) and fol. 96 (plan).

<sup>159</sup> Prospective trips to Palestrina, Tivoli and elsewhere are signalled in a document of May 1547; see Zorzi (as in [n. 5](#)), p. 18.

<sup>160</sup> Hemsoll, in Campbell (as in [n. 156](#)), II, p. 676.

<sup>161</sup> Other plans of the site were certainly produced in the sixteenth century, one being partly recorded in a book of drawings now in St Petersburg (Codex Destailleur B, fol. 18); see Lanzarini and Martinis (as in [n. 16](#)), pp. 98–99.

<sup>162</sup> See R. Strandberg, 'Il Tempio dei Dioscuri a Napoli: un disegno inedito di Andrea Palladio nel Museo Nazionale di Stoccolma', *Palladio*, XI, 1961, pp. 31–40; Palladio (as in [n. 2](#)), IV, pp. 96–97. The Stockholm sheet has the portico on one side and the design of the capitals on the other.

<sup>163</sup> The Ligorio drawings: Turin, Archivio di Stato, Ligorio Antichità XII, fol. 23<sup>v</sup> (elevation) and fol. 169 (plan and details). Palladio's drawing has strong affinities with others from the period, including one made by Francisco de Holanda (*Álbum dos Desenhos das Antigualhas de Francisco de Holanda*, ed. J. Da Felicidade Alves, Lisbon 1989, fol. 45<sup>v</sup>). For further discussion of early drawings of the building, see Fulvio Lenzo, *Architettura e antichità a Napoli dal XV al XVIII secolo: le colonne del Tempio dei Dioscuri e la chiesa di San Paolo Maggiore*, Rome 2011, pp. 40–56.

<sup>164</sup> Ligorio's elevation and plan are both paralleled in a seventeenth-century drawing at Windsor Castle (RL 19285): see Campbell (as in [n. 158](#)), I, pp. 224–26.

<sup>165</sup> Palladio (as in [n. 2](#)), IV, p. 95. He wrote that there was no sign of the round structure at the rear, and judged the rectangular one to be modern.

<sup>166</sup> Such common interests would also explain the similarities between Palladio's drawings of the Porta Aurea at Ravenna (Vicenza, Palladio Museum, D31; and London, R. I. B. A., Palladio XII, 12–12<sup>v</sup>; Zorzi, as in [n. 5](#), pp. 62–63) and Ligorio's depictions of the same monument (Turin, Archivio di Stato, Ligorio Antichità XV, fols 14v–15v), as noted by Coffin (as in [n. 148](#)), p. 133).

<sup>167</sup> Another instance (in addition to the Temple of Hercules discussed below) of a Palladio drawing closely matching with a later Ligorio image would be Palladio's plan of the 'Accademia' complex of Hadrian's Villa at Tivoli (London, R. I. B. A., Palladio IX, 13; Zorzi, as in [n. 5](#), p. 100), which has much in common with a plan Ligorio produced subsequently (Windsor, RL 10377), but with Ligorio making various adjustments to the layout; see Campbell (as in [n. 156](#)), I, pp. 178–86 (although incorrectly ascribing the Palladio sheet to Sallustio Peruzzi). A further complex of interest to both of them was Aurelian's Temple of the Sun, although in this case the two produced very different reconstructions; see *ibid.*, I, pp. 198–203; and O. Lanzarini, 'Il tempio del Sole di Aureliano a Roma in due disegni inediti del codice Destailleur B dell'Ermitage, San Pietroburgo', in *Porre un limite all'infinito errore*, ed. A. Brodini and G. Curcio, Rome 2012, pp. 101–11.

<sup>168</sup> London, R. I. B. A., Palladio X, 16 and also Palladio IX, 13<sup>v</sup> (Zorzi, as in [n. 5](#), p. 100).

<sup>169</sup> As above [n. 159](#).

<sup>170</sup> Two plans survive (Florence, Uffizi, A1176 and A1208; Vasori, as in [n. 10](#), pp. 124–25 and 133–35), along with other related drawings (*ibid.*, pp. 116–17). It may be of some relevance that Palladio's drawing is exactly one-and-a-half times the width of A1176, as this may imply the drawings are directly related.

<sup>171</sup> Windsor Castle, RL 10387; Campbell (as in [n. 156](#)), I, pp. 187–95.

<sup>172</sup> The beginning of his involvement with the Villa d'Este; see Coffin (as in [n. 146](#)), pp. 83–105.

<sup>173</sup> Turin, Archivio di Stato, Ligorio Antichità XX, fols 18<sup>v</sup>–19 (Campbell, as in [n. 156](#), I, p. 188 comp. fig. 54). This Ligorio drawing is paired with Palladio's plan in *Andrea Palladio e la villa veneta da Petrarca a Carlo Scarpa*, ed. G. Beltrami and H. Burns, Venice 2005, pp. 307–10.

<sup>174</sup> As Bernd Kulawik has generously explained to me (personal communication), there were several *Accademias* in existence at this time, including the *Accademia Romana* which seems to be the one focusing on architecture and connected with Tolomei's initiative. None of them was actually called the *Accademia Vitruviana*, whilst the one known as the *Accademia della Virtù* was concerned mainly with questions of language and philology.

<sup>175</sup> See e.g. Campbell (as in n. 156), I, pp. 25–26; H. Günther, 'Gli studi antiquari per l'"Accademia della Virtù"', in *Jacopo Barozzi da Vignola*, ed. R. J. Tuttle et al., Milan 2002, pp. 126–28. For Antonio da Sangallo's involvement, see M. Daly Davis, 'Zum Codex Coburgensis: frühe Archäologie und Humanismus im Kreis des Marcello Cervini', in *Antikenzeichnung und Antikenstudium in Renaissance und Frühbarock*, ed. R. Harprath and H. Wrede, Mainz am Rhein 1989, pp. 185–99 (189). For Ligorio's connections, see Coffin (as in n. 146), pp. 20–21.

<sup>176</sup> Vasari (as in n. 7), VII, p. 106.

<sup>177</sup> *Scritti d'arte del Cinquecento*, ed. P. Barocchi, 3 vols, Milan, 1971–77, III, pp. 3037–47.

<sup>178</sup> See above p. §15.

<sup>179</sup> Tolomei's proposal for a book on 'all the antiquities of Rome' and others elsewhere (*Scritti d'arte del Cinquecento* (as in n. 177), III, p. 3042) provides a virtual prospectus for the contents and presentation of Palladio's Book Four. Although recommending that the buildings should be measured with the Roman foot, he stipulated that they should be represented in plans, elevations and sections and accompanied by commentaries explaining both their histories and their architectural rationales, in order to 'draw the now dead Rome from the grave and bring it to new life, if not in its original beauty but at least with some semblance or image of beauty' (*trarrà del sepolcro la già morta Roma e ridurla in nuova vita, se non come prima bella, almeno con qualche sembianza o imagine di bellezza*).

<sup>180</sup> As Campbell notes (as in n. 156), I, p. 25), however, the Tolomei initiative led directly to the publication, in Rome in 1544, of Guillaume Philandrier's *Annotationes in decem libros M. Vitruvii Pollionis de architectura*; and it may have also spawned the Codex Coburgensis (Veste Coburg, Kupferstichkabinett), an encyclopaedic corpus of sarcophagus reliefs compiled by Stephanus Pighius between 1550 and 1555; see also Daly Davis (as in n. 175), pp. 194–97; H. Wrede, 'Die "Opera de'Pili" von 1542 und das Berliner Sarkophagus: zur Geschichte von Sarkophagforschung, Hermeneutik und klassischer Archäologie', *Jahrbuch des Deutschen Archäologischen Instituts*, CIV, 1989, pp. 373–414 (376–81).

<sup>181</sup> Campbell (as in n. 156), I, pp. 26–27.

<sup>182</sup> The Codex Destailleur D has been connected with the Tolomei initiative (Kulawik, as in n. 117, pp. 119–25), which may still be the case even if the drawings were produced rather later.

<sup>183</sup> Campbell (as in n. 156), I, p. 27.