

## Palladio and Polybius' Histories

by Guido Beltramini

Why was Palladio interested in warfare? He was born in the midst of wars in Padua, which had been lost and won back by the Venetians with a heavy blood toll for the Paduans in the tragic summer of 1509, during the War of the League of Cambrai. The worst conflict in the century, it was to devastate the territory of the Republic as far as the edge of the Venetian lagoon.<sup>1</sup> Andrea must have experienced the war from below, among the frightened starving ordinary people described by the Paduan peasant-soldier playwright Ruzante who 'had come from the war', after having been at the Battle of Agnadello, which had marked the beginning of the Venetian rout.<sup>2</sup> In the following years at the dinner table of Trissino and his Humanist soldier friends, Palladio was to see war from other points of view. One of the few documents telling of his private life, however, portrays him in 1551 vainly attempting, together with Giambattista Maganza, to dissuade their friend Marco Thiene from seeking glory on the battlefield, where he was in fact to meet his death:

What I do know very well is that one evening, a few days before the said lord Marco went to war, I was with Palladio in the house of the splendid Thienes and in our conversation with lord Marco we came to the subject of his decision to go to the war and Palladio and I tried to persuade him as best we could that he should not go, reminding him that it was most dangerous as regards the fortresses; on account of this lord Marco became angry with us because he said he wished to go and he seemed to be offended by our attempts to dissuade him. Then Count Francesco [Marco Thiene's uncle and tutor] arrived and, on hearing our discussion, said to Count Marco these or similar words 'these [men]' – meaning Palladio and myself – 'Count Marco are true friends and they give you good advise.'<sup>3</sup>

We do not know if Palladio's memories of the siege of Padua had made him distrustful about the capacity of walls to halt an enemy army. The fact remains that, unlike many architects (from Francesco di Giorgio to Sanmicheli and Michelangelo) Palladio's interest in war was not focused on designing the perfect bastion or the most effective city walls, but primarily on the organisation of the army in the battlefield. He writes as much in his introduction to the edition of Caesar's *Commentaries*:

I do not marvel that men have already become of the opinion... that it is impossible that any citadel or fortress can hold out and defend against the onrush and force of powerful

enemies. Thus, when I consider how to deceive these [enemies] and, more importantly, to defend kingdoms and cities, I feel that nothing is more suitable for the purpose than having an excellent and well-ordered army.<sup>4</sup>

This was a long-standing debate that went as far back as Machiavelli (who had also reflected on the siege of Padua of 1509)<sup>5</sup> and even to Alberti, who mentioned that Sparta was proud to have no other walls than the valour of its soldiers.<sup>6</sup> Palladio did also take a passing interest in fortifications on a couple of professional occasions.<sup>7</sup> He even designed a bastioned city for the edition of Vitruvius of 1556, which, moreover, had the ingenious solution of an attached flap of paper with the printed plan of the upper level of a bastion, which when raised simultaneously revealed the lower level.<sup>8</sup> But since his early years spent in the company of Giangiorgio Trissino, he had often studied the deployment of troops and military manoeuvres described by ancient authors – from Aelian to Polybius, Caesar and Vegetius – and by modern writers like Battista Della Valle and Machiavelli. The illustrated editions of Julius Caesar's *Commentaries* and Polybius' *Histories* are the result of almost forty years' interest in the subject. As we will see, Palladio attributed various ambitions and meanings to these works; not least the fact that they were not intended to be academic exercises but a concrete contribution to a practical debate involving intellectuals and men at arms of the Veneto aristocracy bent on reforming the Venetian army on the basis of knowledge evinced from the study of the ancient Greek and Roman militia.

### **Palladio and the principles of the ancient militia**

'In my youth, when I first read the said *Commentaries*, I imagined ...'. This is how Palladio introduces his reconstruction of Caesar's famous bridge over the Rhine in the *Quattro Libri*. He is telling us that his interest in ancient warfare went back to the years of his education with Giangiorgio Trissino, i.e. from the late 1530s. Trissino did not only introduce the young master builder to the classics of architecture, but provided him with an overall view of the ancient world, in which the art of building, hydraulics, agriculture, theatre and the organisation of the militias were inseparable integral parts of the same vision.<sup>10</sup> This militant classicism turned to the excellent models of the past for ways of transforming the present.

Tiny pieces of the mosaic of Palladio's education at this stage have come down to us, such as the mysterious rhombus constructed with Greek lambdas in the margin of a drawing of the Colosseum from the 1540s. Here Palladio was not practising writing the Greek alphabet, but – as Burns pointed out in 1975 – he was jotting down a diagram taken from one of the books that he had been studying, namely Aelian's *Tactics* (second century AD), one of the sources

for the sixteenth-century culture of warfare.<sup>11</sup> Aelian had preserved the memory of the formations and strategies of Alexander the Great's successors and – like a twentieth-century Futurist book – the written text was illustrated with battalions of letters of the alphabet symbolising the various types of soldiers on the battlefield. <sup>12</sup> In the printed editions of Aelian, horsemen are always represented by the Greek letter lambda, and in his jotted note Palladio is probably reflecting about the rhombus formation of a squadron of horsemen, which may be ordered in horizontal, vertical or oblique lines. As we will see, he tackled this issue in his introduction to Polybius. Palladio would have had no difficulty in finding a copy of Aelian, available in various printed Latin translations since the fifteenth century (the first Italian translation is from 1551); we know, however, that in the Library of St Mark in Venice there was a fourteenth-century manuscript exemplar, which Giangiorgio Trissino would seem to have consulted personally, noting down its contents, just as Palladio did in the margin of the sheet with the Colosseum.<sup>13</sup>

A second piece in the mosaic of Palladio's interest in ancient armies is found on another sheet, now in Oxford, also dating from the 1540s. This is not a drawing, but a paragraph of text, which runs as follows:

Note that each legion is of four thousand 200 infantrymen and 300 horsemen: in all there are 16 thousand 800 infantrymen and one thousand 200 horsemen, without [counting] the extraordinarii infantry and the extraordinarii horsemen, which are 800 infantryman and 400 horsemen. Each legion is divided into four parts: the first is called hastati and there are one thousand 200, the second is called principes and there are one thousand 200, the third are called triarii and there are 600 in number; and all of these are armed with heavy weapons; then there are one thousand 200 rapid, light-armed [velites].<sup>14</sup>

Palladio is summarising for his own purposes some passages in Polybius' *Histories*, i.e. those on the size of the four urban legions which then formed the two consular armies (Polybius, vi, 19-26).<sup>15</sup> The diagrams beneath this paragraph, however, do not refer to Polybius' text, nor do they come from Aelian. They are probably Palladio's own 'designs' for troop formations. The symbols used to identify the two kinds of armies come from texts, such as Machiavelli's *Arte della Guerra* (Florence 1521) or Battista Della Valle's *Vallo* (the first Venetian edition was published in 1524), authentic 'bestsellers' of Renaissance literature on warfare. I have used the term 'designing' the formations of troops because in the young architect's mind the forms of the battalions could be superimposed like the plans of complex buildings. Soldiers become bricks and, vice-versa, the figurative sources for the designs of more than one Palladian villa complex seem to include images found in *Vallo*, such as the battalion 'of 400 pikes' in Chapter xxii for the Villa Badoer at Fratta Polesine, or the Battalion 'of 300 pikes with two lunettes' in

Chapter xv for the Villa Mocenigo.<sup>16</sup> In those same years of the 1540s, in addition to Caesar's bridge over the Rhine, Palladio 'imagined' another graphic reconstruction based on the pages of Polybius: the legions' encampment or, to use the technical term, the castrametation. The ancient Romans used many fine things in the art of war, but to my mind two are particularly fine: that is, Caesar's bridge to be placed over a river with great ease and the other, Polybius' castrametation to lodge an army in splendid order; several rare minds have worked on these subjects.<sup>17</sup> This paragraph written by Sebastiano Serlio in 1546 seems almost to be the young Palladio's study programme. In Trissino's *L'Italia liberata da' Goti* ('Italy Freed from the Goths'), printed in Rome (1547) and Venice (1548) after a long period of gestation, the first illustration of Book i is the plan of the Byzantine General Belisarius' encampment, which is clearly based on the text by Polybius (vi, 27-34); it would be hard to conceive of anyone else having made this illustration than Palladio himself.<sup>18</sup> A few years later, the Roman army put in a fleeting appearance in the pages of Palladio's *Antichità di Roma*, published in Rome and Venice in 1554.<sup>19</sup> The army then appeared in flesh and bone on the stage, in a performance of Trissino's *Sofonisba* in 1562, under the direction of Palladio, in a temporary theatre constructed inside the Palazzo della Ragione in Vicenza.<sup>20</sup>

Published in 1524, Trissino's tragedy is based on Book xxx of Livy's *History of Rome*. It begins with one of the last episodes in the Second Punic War, the Battle of Cirta, where Syphax is captured after various clashes with the Romans, also narrated by Polybius and illustrated by Palladio ('Attack on the encampments' and the 'Battle of the Great Plain', see Plates 40 and 41, respectively). The production of the play had been promoted by the Accademia Olimpica, which was presided over by the cavalry colonel Valerio Chiericati, a professional soldier and scholar of the ancient militia. The production of the play is documented as having been very careful about details, especially as regards the dress and the weapons of the Romans and Numidians, based on ancient texts and illustrations in books, such as the *Discorso di Guglielmo di Choul*. These works must have led Palladio to reflect on how to present ancient texts in images.<sup>21</sup> In fact for *Sofonisba* Palladio set the ancient world on the stage and thirteen years later the same interest led him to make the revolutionary sequence of images which brought back to life the deeds of Caesar, Hannibal and Scipio in the *Commentaries* and in Polybius' *Histories*. In sixteenth-century Vicenza, some members of families for whom Palladio constructed *palazzi* and villas also pursued sophisticated studies on the ancient world alongside Trissino, the great director of the revival. In 1520 the Venetian scholar Giovanni Battista Egnazio edited *De Sestertio* by Leonardo da Porto, a book on ancient Roman coins, weights and militias, which rivalled the work of the French philologist and historian Guillaume Budé, who was to claim that he had been plagiarised.<sup>22</sup> The proofs of the 1547 Latin edition of

*De Sestertio* were personally corrected by Gianalvise Valmarana, patron and protector of Palladio.<sup>23</sup> Giulio Barbarano, a cousin of Montano, for whom Palladio built a *palazzo* in the late 1570s, published a *Promptuarium* in 1567. This erudite study of Roman civil and military life included a large section with an analytical description of the army: from battle formations to the armament, recruitment and so on. Barbarano even went to so far as to criticise those who turned to late Latin sources, such as Gellius and Vegetius, who had described a different type of militia compared to that of Republican Rome, whose order was thought to be superior to subsequent ones.<sup>24</sup> Montano Barbarano may well have discussed with his cousin Giulio the idea of decorating his *palazzo* with the feats of Scipio, especially given that Giulio had expressed his love of Livy several times in the *Promptuarium*.<sup>25</sup> In the sixteenth century, the work of the 'professional' scholars took place in a general climate of enthusiasm for reexploring ancient Roman history. The aristocracy, but also other social classes, baptised their children with the names of illustrious ancient men and women – Silla, Leonida, Scipione, Zenobia, Porcia, Deidamia – much more often than in any other Veneto city at the time. They also had themselves portrayed dressed up as ancient Romans on the façades of their palaces. This was the case with Iseppo and Leonida Porto<sup>26</sup> and the patron of the Palazzo Garzadori<sup>27</sup> while the members of the Accademia Olimpica had statues of themselves in Roman garb set on the stage of the theatre whose construction they had helped finance. Others may simply have been totally engrossed with the ancient world, as Fabio Monza was with the battle between the Jews and Romans described by Giuseppe Flavio, one of the sources cited by Palladio in the *Commentaries*: '11 March 1586. I did not leave home as I was inadvertently detained in reading Gioseffo's *de bello judaico*'.<sup>28</sup>

But the interest was not confined to wars in books. A cursory glance at the short biographies of illustrious citizens published in Book ii of Giacomo Marzari's *Historia di Vicenza* reveals how members of the Vicentine aristocratic houses were engaged in the quest for glory on the battlefield in the Italian Wars, in the service of the Pope, Spain or France. Of the seven sons of Leonardo da Porto, the author of *De Sestertio*, at least three became professional soldiers: the firstborn Giovanni fought at Vienna, in France and in Piedmont; Lodovico was also at Vienna, and then followed Charles v to Tunis, and eventually died in Piedmont at the age of 20, 'slain by an arquebus shot to the immense grief of the whole Imperial Army'; Pietro, who served under Guidobaldo della Rovere, fought the Turks, defended Cuneo when besieged by the French and also died in battle.<sup>29</sup>

## **Caesar's Commentaries, 1975**

In 1575 the Venetian publisher Pietro de' Franceschi printed a book entitled *Commentari di Caio Giulio Cesare, con le figure in rame de gli alloggiamenti, de' fatti d'arme, delle circonvallationi delle città e di molte altre cose notabili descritte in essi, fatte da Andrea Palladio per facilitare a chi legge la cognition dell'historia* ('Commentaries by Caius Julius Caesar, with copper figures of the encampments, battles, circumvallations of cities and many other notable things described in them, made by Andrea Palladio to facilitate the reader's understanding of history').<sup>30</sup> Pietro was the brother of and heir to Domenico, who had published *I Quattro Libri dell'Architettura* in 1570.<sup>31</sup> Palladio only personally applied for the copyright for the edition, however, in the last months of 1574. In the text he referred to the 'expense, vigils ... and labour' that he had invested in making the drawings and in writing the introductory texts.<sup>32</sup> They were to form the core of the publishing operation. To an Italian translation published a decade earlier, and therefore free of copyright, Palladio added a lengthy study on the Roman army as an introduction and 42 etchings, which were inserted between the pages of the text. He took special care over linking up the words and images: on the upper left margin of each plate is one or more letters of the alphabet, also found at the *incipit* of the text beside the relevant passage. On the back of each etching, a legend lists the key places featured in the image and repeats the page number of the illustrated passages. Of the 42 plates, two show 'archaeological' maps of Spain and France at the time of Caesar. Five provide more specific explanations: the Roman encampment (+), the deployment of the legion and of the phalanx (2), Caesar's bridge over the Rhine (K), a section of 'French-style' walls, woven with trunks and plugged with stones (P), and a close-up view of the double trenches of Caesar's fortified camp at Alesia (V). The other 35 plates all feature battles and sieges, at times with several plates in sequence, as in the two stages of the battle of the river Axona (F and G) or the three stages of the siege of Alesia (T, X and Y). In other cases, such as the plate on the Battle of Bibrax (C), three successive stages of the battle are set side by side in the same picture. In two cases the images focuses on views of the city: Brundisium (BB) and, especially, Alexandria (GG). The fact that it was Palladio who applied for the copyright of fifteen years implies he played an active role in the overall publishing project and also that he made a joint investment with the publisher.<sup>33</sup> The work is revolutionary in terms of the way it presents readers with an ancient text previously only basically enjoyed in written form. In 1513, in editing the publication of Caesar's *Commentaries* for Aldo Manuzio, the Veronese architect Fra Giovanni Giocondo had included six images in the text: a map of France, the sieges of Alesia, Uxellodunum, Avaricum, and Massilia (Marseilles) and a reconstruction of the bridge over the Rhine.<sup>34</sup> Inspired by Fra Giocondo, Palladio not only increased the number of plates six-fold but

thanks to the vividness of the etchings, the bird's-eye view perspectives and the decision to include double page illustrations rather than insert them in the text, readers could enjoy the series of Caesar's deeds and the theatres of war in a way which today we might call 'cinematographic', and which was truly unprecedented at the time. Jacopo Strada's version of Caesar's *Commentaries* was published in Frankfurt in 1575 and, therefore, around the same time as Palladio's work. It thus enables us to make a useful comparison between two editorial approaches which, however, reveals the superiority of Palladio's work.<sup>35</sup> Strada's son, Ottavio, was of a completely different opinion. As Fiore mentions in his essay in this book, in 1574 Ottavio wrote to his father: 'I know ours will be finer than that of Palladio: we may still be able to obtain a better market than his.' Strada's *Commentaries* followed the conventional method for illustrated books of inserting the images within the written page. Palladio tried out a new method in the *Commentaries*, whereby the pictures are like a parallel text interlocking with the text of the ancient writer. Strada's book had to be read, whereas Palladio's work could be viewed.

### **The Purloined Plates**

Given they were reprinted in 1598 and 1619, the *Commentaries* of 1575 must have been something of a publishing success, also because Palladio immediately began work on a new venture, an illustrated edition of Polybius' *Histories*.<sup>36</sup> But his death in August 1580 halted the production process and the work disappeared without trace, giving rise to an intriguing, paradoxical story that lasted over four centuries. The tale of the rediscovery of Palladio's Polybius begins in 1977, when the great historian John Hale mentioned finding in the British Library in London an unusual copy of *Polibio storico greco. Dell'Imprese de' Greci, de gli Asiatici, de' Romani, et d'altri*, published in Venice in 1564. Unlike all the known copies of this work, in this exemplar someone had inserted 43 etchings and six sheets with a manuscript introduction. On the *retro* of 35 of the 43 etchings, there were handwritten legends referring to letters of the alphabet found in the images, plus a brief comment on the scene depicted. Although Hale did not identify Palladio's hand anywhere in the manuscript, he realised that it was his unpublished illustrated edition of Polybius. This was a brilliant piece of guesswork by the historian, who, alluding to Edgar Allan Poe's *The Purloined Letter*, observed that the lost Palladian materials were actually in the most obvious place – inside an edition of Polybius – and that's why they had been overlooked for such a long time.<sup>37</sup> In fact the story of how this edition of Polybius arrived at the British library is so unusual that perhaps alongside Poe, we should also ask for help from one of Jorge Luis Borges' librarians. The news of the existence

of a work by Palladio on Polybius had become public in 1749, when the Vicentine Count Giovanni Montenari published the *Vita di Andrea Palladio scritta da Paolo Gualdo* ('Life of Andrea Palladio written by Paolo Gualdo') in the second edition of his book on the Teatro Olimpico in Vicenza.<sup>38</sup> Apart from Vasari's 'life' of Palladio of 1568 and Marzari's brief 'medallion' of 1594, Gualdo's work was thus the earliest known biography of the architect. As a Vicentine, Gualdo (1553-1621) had very probably met Palladio and is known to have been a friend of Palladio's professional heir, Vincenzo Scamozzi. Drafted in 1616, Gualdo's text remained in manuscript form and in the early eighteenth century it was owned by the erudite Venetian Apostolo Zeno, who had kindly allowed it to be published by Montenari. In the biography, after praising Palladio's edition of Caesar's *Commentaries*, Gualdo adds:

He [Palladio] similarly did some very worthy work on Polybius, dedicating it to Francesco, Grand Duke of Tuscany, who showed he was very fond of it.<sup>39</sup>

Awareness about the existence of Palladio's Polybius grew a few years later, not so much due to Gualdo's biography as to a summary of it which Apostolo Zeno included in his *Annotazioni alla Biblioteca dell'Eloquenza italiana* by Giusto Fontanini. The book with the annotations was published posthumously in 1753, three years after Zeno's death. In his commentary under the entry on the *Quattro Libri*, Zeno had written:

He also worked on and wrote about Polybius, and his work, which I believe to be unpublished, was well received by the Grand Duke Francesco de' Medici, to whom it was dedicated.

This text prompted Francesco Algarotti to publicly regret the loss of Palladio's Polybius:

How I wish that Signor Temanza, with all the diligence he brings to bear on scholarship, could have rediscovered what Palladio wrote on Polybius: our very learned Zeno mentions this work in his *Annotazioni alla Biblioteca del Fontanini*.<sup>41</sup>

In 1762, this information was also provided by Temanza in his life of Palladio, without, however, adding any fresh clues.<sup>42</sup> I have pedantically listed these texts because the surprising thing is that the greatly sought-after 'wanted person' – Palladio's Polybius – was actually in Venice itself at the time. Indeed, the book was preserved in the library of the art collector and dealer Consul Joseph Smith, who was not only a potential 'witness' well known to all the 'investigators' but also a founding father of eighteenth-century Palladianism. As Stephen Parkin recounts in detail in this book, the Polybius had actually been in the Smith collection at least since 1751, and only arrived in London in 1762-1763, when the collection was sold to George iii. Smith was clearly unaware that he owned the unpublished Palladian work, which is somewhat baffling to say the least, given the visual affinities between the Polybius plates and those in Caesar and the fact that the link between the two works is also stressed in the manuscript introduction to the Polybius:



Having dwelt at length in Caesar's Commentaries upon the Roman way of drilling soldiers, and how their armies were positioned and ordered in battles and combats, and having representing in drawings all those circumvallations, orders, armies and all those deeds achieved and described after Caesar himself, I now believe that it would be pointless to repeat similar things, so I will move on to another matter...

Arguably Smith and his friends must have thought that the unpublished Palladian work was a manuscript and did not expect a printed text, but in any case, the Polybius' 'bad luck' did not stop here. At the end of the eighteenth century, the Royal Librarian Frederick Augusta Barnard identified Palladio's authorship of the volume and included it as such in the printed author catalogue in the King's Library. But this information was omitted in the subsequent general catalogue, and the volume remained anonymous until Hale's discovery. Even more further surprising developments were to ensue. In the meantime, while Palladio's Polybius was engulfed in a sea of papers in the King's Library, new clues came to light in Vicenza. In 1845 Antonio Magrini definitively demonstrated the existence of the Polybius. He published a document of 1588 in which Silla, Andrea's lastborn son, gave a proxy to his brother Marcantonio so that he could proceed with the sale or hire 'of the *designa in ramo* [probably copper printing plates], figured and set by the said Excellent Signor Andrea on the History of Polybius'.<sup>43</sup> Together with this document, Magrini published a letter of 18 January 1579 [Venetian Calendar = 1580],<sup>44</sup> in which Palladio thanked the Grand Duke of Tuscany for having agreed to give his patronage to the book of Polybius. But here, too, there is nothing straightforward. In fact the letter itself bears the date 1569 and it is not clear what Palladio is thanking the Grand Duke for. This was no obstacle to Magrini, who cleverly solved the puzzle and highlighted the various links between Palladio and the Medici: his admission to the Accademia Fiorentina del Disegno (created by Cosimo himself ) in 1566; the dedication to Cosimo in the last volumes of Trissino's *L'Italia liberata da' Goti*; and the marriage of Cosimo's son, Francesco de Medici, to Bianca Cappello, the niece of Giovanni Grimani for whom Palladio had designed the façade of San Francesco della Vigna.<sup>45</sup> In 1977, as we have seen, John Hale identified the copy of Polybius thanks to his knowledge of all the key elements. But then nine years later there was another surprising twist to the story. The Florentine antique bookseller Gonnelli put up for sale a copy of Polybius of 1564. This book contained the same 43 plates and the same manuscript introduction as the London edition, plus a dedicatory letter by Palladio to the Grand Duke of Tuscany, Francesco de Medici, dated 15 September 1579.<sup>46</sup> What then was this copy? The main difference between the two copies is that the Florentine version is written wholly by one hand – identified by the Florentine antiquarian as that of Silla Palladio – and that there are legends on all 43 plates. Lionello Puppi, who examined the copy

before it was sold to a private collector, was also persuaded that the manuscript parts were autograph Silla Palladio. On the basis of the fact this exemplar was more complete and of the 'extraordinary freshness' of the etchings, he then suggested it was the original mock-up of the edition and that the London exemplar was thus a 'copy arguably made for precautionary reasons at the end of the sixteenth century or in the early seventeenth century'.<sup>47</sup> In keeping with the intriguing nature of the story, another twist came during the preparatory studies for the Palladio exhibition of 2008. On checking the British Library Polybius again, something which had previously eluded everyone's attention came to light: i.e. the volume contains 29 autograph interventions by Palladio. In the legend of the etching inserted between folios 200 and 201 he corrects the copyist's mistake of 'Asdrubale' (Hasdrubal) to 'Anibale' (Hannibal) and on the top margin of 28 of the 43 plates he indicates the pages in which the plates are to be inserted, starting from the first, to be added after 'carte 13', up to the last which was to go after 'carte 537'.<sup>48</sup> On comparing the Florentine and London exemplars, we note firstly that although both have the same 43 plates, the quality of printing is poorer in the London exemplar, not so much in terms of the vividness of the images as the care taken over them: the plates are placed irregularly on the sheet and have some lacunae and abrasions. Secondly, in the English exemplar the 28 plates with Palladio's indications of where they are to be positioned have legends written by a sixteenth-century hand, which we will call 'A', while of the remaining fifteen, six have legends written by another uniform hand, 'B', one by the same hand as the Introduction, 'C', and eight plates have no handwritten additions. Moreover, as regards the positioning of the illustrations in the body of the book, only 36 of the Florentine plates are inserted in the same position as in the English edition in which they all relate logically to the text. Of the seven in different places, one is brought forward by nine pages, five are placed two pages later and the last is in a completely different position, over 400 pages later (despite the fact that the British Library exemplar has Palladio's indications for their position; see the *Comparison* in the Appendix). The language of the legends and the short summaries is slightly different in the two exemplars. In the Florentine exemplar all the corrections made on the London manuscript have been added, some dialect turns of phrase have been eliminated and on the whole greater care seems to have been taken over the written language. The most plausible hypothesis is, therefore, that the English exemplar was the working copy used personally by Palladio to edit the work. The Florentine manuscript, on the other hand, appears to be a 'fair copy'. But why was it made? Given the mistakes in the positions of various etchings, it could hardly have been used for editing purposes. Lionello Puppi suggested that Palladio may have sent it to Francesco i with a member of the Venetian

delegation, which went to Florence for the wedding of the Grand Duke and Bianca Cappello in autumn 1579.<sup>49</sup> More recently Amedeo Belluzzi has corroborated this idea by suggesting that Palladio himself was a member of the delegation.<sup>50</sup> The idea of the fair copy is very attractive, but it fails to explain why a certain embarrassment comes through in Palladio's reply in the letter to the Grand Duke published by Magrini. It is as if he was in difficulty for not having completed the work, whereas the Florentine exemplar is basically complete.<sup>51</sup> One possible answer is that Palladio was worried about the printing schedule: although the text was ready in terms of its contents, it would have to be typeset again to add the cross references to the images. In the case of the *Commentaries* of 1575, they are found both in the margin of the illustrated passages and in the body text at the *incipit*.

In any case we must conclude that not even the English exemplar can be considered the final stage of the mock-up, given that the position of the insertions often differ in the two editions and the fact that the texts for as many as fifteen legends are missing. Moreover, in the English copy different kinds of paper are used. As Sara Mazzarino remarks in the Appendix to this book, at least seven illustrations with no additions by Palladio were printed on heavier paper and may have come from a different print run. Very recently new elements have emerged with the rediscovery of a third copy of Palladio's Polybius among the Rare Books of the New York Public Library.<sup>52</sup> This copy was acquired in 1785 by John Peachey, later Lord Selsey, a collector and connoisseur of Italian art who, in an annotation on the volume, reveals he was aware of Palladio's authorship of the engravings:

'This book is very scarce. Cost nine pounds AD 1785; only one copy known, that is in the King's Library; its value arises from Palladio's prints.'

In this copy there are only 40 etchings (plate numbers 3, 8 and 41 are missing compared to the British Library copy), all printed on very thick paper, similar to the heavier paper identified by Mazzarino in the British Library copy. None of the etchings have Palladio's autograph additions, although all do have the hand-written indication of the precise position in a copy of the 1564 Polybius. The plates have been inserted inaccurately, however, with several misinterpretations of the hand-written indications, almost as if they had been added some time after the etchings had been printed. As we mentioned, in 1588 the copper printing plates for the etchings were probably still in the hands of Palladio's sons. Thirty years later, in July 1618, the French scientist Nicholas-Claude Fabri de Peiresc (1580-1637) made a surprising request to the Paduan antiquarian scholar Lorenzo Pignoria (1571- 1631).<sup>53</sup> In a long letter discussing books, drawings and antiquities, he asks his friend to send him the recently published new editions with commentaries of *Immagini degli Dei* by Cartari (Padua 1615) and *Emblemi* by

Alciato (Padua 1618), together with a copy of Alvise Cornaro's, *Discorsi* (Rome 1616), Caesar's *Commentaries* and a work by Palladio on Polybius:

I beg you to put in unbound copies of your Cartaro and your Emblemi by Alciato and one of Luiggi Cornaro il vecchio with Palladio on Caesar and on Polybius.<sup>54</sup>

In the letter Peiresc often refers to their mutual friend Paolo Gualdo, who was well acquainted with Palladio's Polybius and must certainly have informed the two antiquarians about it.<sup>55</sup> Given the context of the letter, Peiresc could hardly have been inquiring about the copper plates, but was more likely referring to a specimen copy, or to a new reprint of the etchings. We know very little of the details of the production process of the second edition of Caesar's *Commentaries* of 1598, or the third, which was printed in 1619, the year after Peiresc's letter. Given that all the books requested by the Frenchman from his Paduan friend were new publications dating from 1615 to 1618, Peiresc might have had an inkling that a new edition of the two Palladian works on warfare was in the offing. But this later only turned out to be the previously published text, reprinted in Venice by Niccolò Misserini.

### **Andrea Palladio's *Polybius***

Palladio conceived of the illustrated Polybius as a continuation of the *Commentaries* of 1575 – a second volume in an ideal series. The two works share the same editorial logic, with an 'atlas' of images inserted between the pages of the text, and the same effective number of plates and method of drawing and etching them. The link between the two works is underscored in the manuscript introduction to the Polybius, where Palladio says that he wishes 'to move on to another matter' after the experience of the *Commentaries*, and in fact he goes on to deal with the cavalry. This decision was justified by the deeds of Hannibal, whose cavalry was his best arm. Palladio dedicates the first illustration to this subject, providing an image of the techniques of deploying the horses *a giughi* ['yoked' in rows], in *versi* [vertical lines] and other possible variations. In this case the image is one of the few illustrations which are purely explicative, and Palladio uses a set of symbols of small toy soldiers on horseback, inspired by Robortello's edition of Aelian (1552); Palladio was very familiar with this work, to which we will return later. At the beginning of the book of the *Commentaries*, Palladio had added his own long study entitled *Delle legioni, dell'armi e dell'ordinanze de Romani* ('Of the legions, the arms and the orders of the Romans'). In this study, in addition to Vegetius, Josephus Flavius, Aelian and Caesar, he often cites Polybius, referring to passages from Book vi on the composition and weapons of the army and Book xvii which narrates how the Roman legion was confronted by the Macedonian phalanx.<sup>56</sup> The latter subject was depicted on the

plate marked '2'. Similarly, the plate on the castrametation, marked '+', was based on Book vi of Polybius. Palladio does not use the first plate again in the Polybius, but has no hesitation in using the second copper plate, on which the '+' sign of the *Commentaries* survives. On these grounds we can say that 42 plates were specifically made for Polybius, which is exactly the same number as the plates in Caesar. One interesting novelty is found on Plates 2 and 4 in the British Library Polybius,<sup>57</sup> which are dedicated to the Roman quinquereme, as Palladio anticipates in his introduction:

because it seems that until now the form of the Quinquereme has not been shown according to the ways of the ancients, I similarly wished to set it out in drawing, again according to my opinion, but always submitting to better judgement, by exhorting anyone who so wishes to complete that which I may have omitted, and so make the truth known.

The reconstruction follows Polybius' text, which carefully describes the *corvus* invented by the Romans to grapple Carthaginian ships (i, 22)<sup>58</sup> and illustrates the battle of Cape Ecnomus (Plate 6). Palladio's caution in announcing his reconstruction of the quinquereme is very understandable. In fact he was taking part in a long-standing debate, which had involved historians and architects, such as Giuliano and Antonio da Sangallo.<sup>59</sup>

The first practical result of this interest had been seen in Venice: in May 1529, a quinquereme by the Humanist Vettor Fausto won a race against a narrow galley in the Bacino di San Marco.<sup>60</sup> A Greek teacher at the Scuola di San Marco, Fausto had built the prototype on the basis of his antiquarian studies. This was not the triumph of an isolated intellectual, but of a group of Venetian scholars and politicians convinced that knowledge of the excellent examples of the past would enable them to win the challenges of the present. They celebrated Fausto's success as a collective victory, and this comes through in a letter from Pietro Bembo to Andrea Navagero:

One can now also convince the uneducated that men of letters know how to do more than read or write, after Fausto... having never tried his hand at making galleys or ships or other forms of vessels, has now been seen making the Cinquereme as his first work, which was no longer not only so far from the customs but also the memory of men that no one could even have imagined how it should have been made... I say therefore that all men of letters must be greatly obliged to him. Because they can no longer be told, as they used to be in the past, 'go and stay in your study and in your letters', when discussing other things than books and inkpots, wherever they are.<sup>61</sup>

The letter is dated 1529, and thus belongs to Palladian prehistory. But the men close to Fausto, from Bembo to Navagero, and Giovan Giacomo Leonardi, belonged to a circle of which Giangiorgio Trissino was also a very active member, as well as men at arms like Mario

Savorgnan or Valerio Chiericati, who looked for practical ways of applying the ancient orders to modern warfare.<sup>62</sup> Palladio's intellectual formation took place in this kind of milieu (also found elsewhere in Italy, as described by Verrier),<sup>63</sup> first in Vicenza, and then in Venice, and the illustrated editions of Caesar and Polybius were deeply influenced by his educational background. In his Polybius, Palladio presents two variations of the quinquereme. In Plate 2 he draws a plan of the deck and a section, which presupposes all the rowlocks were aligned on the same level. In Plate 4 he shows a view of the side of the ship and a section of another version, with the rowlocks arranged on five different levels. The technique of representation is very precise, producing a thoroughgoing ship design, comparable to the drawings of Alessandro Picheroni, the author of a manuscript *Disegni di architettura navale*, in the Biblioteca Marciana, which Ennio Concina considers to be the first naval designs in the strict sense in the European Renaissance.<sup>64</sup> Palladio mentions having discussed with Picheroni the subject of wooden bridges with no piers in the water and the architect was also well known for the care he took over the carpentry of the complex roofs for his buildings.<sup>65</sup> Evidence of his interest in naval carpentry is found in a letter of 31 July 1560, now in Budapest, in which he agrees to survey the large floating structure created to salvage a galleon which had sunk just outside the port of Malamocco.<sup>66</sup> Daniele Barbaro also mentions Picheroni in the second edition of his Vitruvius (Venice 1567), in which includes a drawing of a fortified city by Picheroni to replace Palladio's illustration of 1556.<sup>67</sup> We must remember that in *De architectura* Vitruvius also deals with shipbuilding. In Book i, in explaining the concept of symmetry, he refers to the diameter of pillars in temples, and the space between two rowlocks on ships.<sup>68</sup> In Book x Vitruvius also dwells on ships while discussing siege machinery and raising devices. Many intellectuals tried out their architectural learning in these passages, from Giocondo to Philandrier, Rusconi and Barbaro.<sup>69</sup> Jacopo Contarini – Palladio lived in his house in Venice – owned a manuscript dated before 1570, entitled *Arte de far vasselli* ('The art of making vessels'). This book including a description of the quadrireme, another of Fausto's inventions. Moreover, as *provveditore* (superintendent) at the Arsenale shipyards, Contarini corresponded with Galileo on the subject of the driving power of oars.<sup>70</sup> The ensuing 39 illustrations, on the other hand, are all 'stills' from Polybius' narrative. With the effectiveness of an atlas, they represent the sequence of war events which led to the Roman conquest of the Mediterranean dominion in the period from 220 to 146 BC. The theatres for the battles moved from Italy to Spain, Greece and as far as Asia Minor. Palladio's readers were thus able to see the reconstructions of cities that had been wiped out or greatly modified by time, like Thebes in Greece, New Carthage in Spain or Seleucia Pieria in Asia Minor, and also less exotic places,

like Taranto or Agrigento. Palladio chose the bird's-eye view for all the plates, which enabled him to describe the landscape and also to create compelling images. The cities can be understood in terms of their layout and geographical context, while the description of individual buildings is only sketchy. Palladio examines sites with the eyes of a military man, taking into account the orography and the defensive or offensive potential of each site, rather than with the gaze of a traveller interested in architecture or natural beauty spots. For the Italian cities – but also for those in Morea (Peloponnese) – Palladio could very likely have turned to printed images in atlases. Or, through his powerful friends, like Marcantonio Barbaro or Giacomo Contarini, he may have had access to the detailed manuscript equivalent of Google Earth housed in the reserved archives of the Venetian Republic, which held the maps and reports made by ambassadors, soldiers or travellers. A drawing of the Lisbon area during the siege of 1580 provides a good example of the kind of sources Palladio could have had access to: it was sent by Stefano Angarano, the son of Giacomo, dedicatee of the *Quattro Libri*, to Giacomo Contarini, begging him to show it to Palladio, who was living in Contarini's house at the time.<sup>71</sup> On comparing Palladio's images with contemporary cartography, one does not have the impression he took special care over the geographical context. The most faithful image is arguably that of Brundisium (included in the *Commentaries*), while the site of Tarentum is generic, and those of Lilybaeum (Marsala) and Trapani even more so. Palladio renders the features of the site (a rushing river difficult to ford, a steep hill that must be gone round or a slope slowing down the cavalry), at times also indicating the orientation in terms of the principal winds since it was useful in describing the military operations. He basically begins from Polybius' text and this often leads to varying results. Thus in the case of Thebes, when the description is minimal, the image is generic. In the case of Psophis (Plate 30), the result is slightly more accurate:

On its western side there descends a violent torrent, which, impassable for the greater part of the winter, prevents the citadel from being reached on that side... On the eastern side of the town flows the Erymanthus, a large and rapid river of which many fables are told by poets and historians. The said torrent falls into the Erymanthus to the south of the city, so that the third side is also very secure. Three sides of the city are thus surrounded and protected by the rivers, while on the fourth rises a steep hill: in addition to this, every part is enclosed by large excellently made walls.<sup>72</sup>

The descriptions of New Carthage (Plate 37)<sup>73</sup> and Seleucia (Plate 33) are much more effective. For the latter Palladio invents a system of stairways up from the markets to the acropolis based on the model of those at the Temple of Fortuna Primigenia at Palestrina:

The situation of Seleucia and the nature of its surroundings are as follows. It lies on the sea between Cilicia and Phoenicia, and below it is a hill called Coryphaeum, washed on its western side by the waters of the sea separating Cyprus from Phoenicia, but overlooking with its eastern slopes the territories of Antioch and Seleucia. Seleucia lies on its southern slope, separated from it by a deep ravine with no roads. The town descends to the sea and is surrounded on several sides by cliffs and precipitous rocks. Beneath the side overlooking the sea lie the markets and a suburb defended by very strong walls. The whole of the main city is similarly fortified by very secure walls. Beyond this, it is very well equipped with ships and all kinds of machinery. On the side looking to the sea there is only one entrance and a very steep one made by hand. Stairs are thus required for its ascent. Not far from the town, the river Orontes enters the sea.<sup>74</sup>

Agrigentum (Plate 5) is a special case because, although the image refers to the siege by Lucius Postumius and Quintus Mamilius described in Book i (Chapters 17- 19), Palladio takes the description of the city and its context from Book ix (Chapter 27):

It [Agrigentum] stands at a distance of eighteen stades from the sea, so that everyone enjoys its benefits. Because of the natural site and constructed parts, the walls are excellently fortified. The wall partly by nature and partly through construction is thus set on a steep ridge of rock. It is also surrounded by rivers, because on the southern side there flows a river with the same name as the town and along the west and south-west sides flows a river called the Hypsas. The citadel overlooking the town is south-east from it, being surrounded on its outer side by an impassable ravine and having on its inner side only one approach to the town. On its summit stand the temples of Athena and Zeus Atabyrius, as in Rhodes.<sup>75</sup>

Battles in the field account for the majority of the images. The principal subjects are the deeds of Hannibal, which feature in as many as fifteen plates, and of Scipio, which are described in four plates, while in the image of Zama, the armies of the two bitter enemies are both depicted. Two plates feature the battle of Cannae: the first shows the deployment of both sides in the field and the second is devoted to Hannibal's successful stratagem of luring the Romans into a pocket created by the apparent yielding of the Carthaginian line. In short, the illustrator's hand is always guided by the ancient text. Moreover, like Caesar, Polybius had personally visited many of the places described and for Palladio he has the value of a primary source. This idea is stressed in the introduction, as Palladio describes his efforts to represent faithfully Polybius' words by:

going to great lengths to preserve all the sayings and words of this divine Historian [Polybius] so admirable in describing all the battles and all the sites of the cities,



mountains and rivers, having wished, as he himself says, to see all those places and also to speak of them with those men who were present during Hannibal's crossing of Italy.

In rendering cities and places transformed over the centuries, Palladio reconstructed the original buildings on the basis of the ruins, just as he had done in his drawings of the Roman baths.<sup>76</sup> I feel a very telling comparison can be made between three views of Alexandria published in the same year (1575): the pedantic image in Jacopo Strada's *Commentaries*, the sixteenth-century city and its ruins portrayed by Braun and Hogenberg in *Civitates Orbis Terrarum*, and the powerful view of the city at the time of Cleopatra invented by Palladio. Clearly Palladio does not simply take on the secondary role of the illustrator, but makes an academic contribution as a philologist. This was nothing new for an architect like Palladio, who in the late 1530s had worked on representing Vitruvius' words in images: 'I have described it as best I could understand it' is what he wrote alongside his reconstruction of Vitruvius' Monopteral Temple in a drawing from his early years.<sup>77</sup> What basically emerges in the Polybius plates is an 'antiquarian geography': the reconstruction of the scenes of the past. Palladio uses the tools and, when possible, the information from a particularly lively cartographic culture in Venice, but generates 'paper cities', close to Pirro Ligorio's reconstructions of ancient Rome, made also on the basis of antique coins, or the those of ancient Jerusalem.<sup>78</sup>

### **Palladio and the Narrative of Battles**

Before the editions of Caesar and Polybius, no Italian illustrated text on war had ever used a kind of image which was both 'hot', i.e. dramatic for the reader, and 'cold' in terms of the effective hard facts. Palladio never shows the clashing of massed armies and the heroic deeds of the commanders, who are never recognisable in the images. In this sense his views are diametrically opposed to the 'painting of deeds', also when we consider the grandiose paintings celebrating Antiquity, such as Altdorfer's Battle of Issus or Burgkmair's Battle of Cannae.<sup>79</sup> His choice of a specific viewpoint provides the best way of seeing the deployments of troops in the field and the orography of the site, which is of crucial importance in winning battles. Palladio shows us the architecture of the battle, almost its 'anatomy', we might say, alluding to the figures that Andreas Vesalius set in a landscape. This is an entirely different approach compared to that of the images of ancient battles which figurative artists were painting on the walls and ceilings of Palladian buildings, like the Battle of Zama (cf. Plate 42 in Polybius) or the attack on the Carthaginian encampment (cf. Plate 40) painted by Andrea Vicentino in the *salone* of the Palazzo Barbaran from 1580 to 1583.<sup>80</sup>

Palladio's 'film stills' for Caesar and Polybius, however, are also equally remote from traditional illustrations in books on war which, from Machiavelli on, represented military events with

symbols and diagrams, following the model of Aelian's text.<sup>81</sup> The figures illustrating Machiavelli's *Arte della Guerra* (Florence 1521) make use of a complex set of symbols, while a book published just before the Palladian revolution – *Il Soldato* by Domenico Mora (Venice 1570) – describes the battle of Pharsalus between Pompey and Caesar in such an abstract way that the page is more like a computer programmer's diagram. The illustration on the same subject in Caesar's *Commentaries* is quite the opposite of this kind of image. Where did Palladio learn to narrate battles in this way? There are several sources, but yet again the original model must be sought in his education alongside Giangiorgio Trissino. Palladio explains how he was introduced to the subject of the ancient militia in the preface to Caesar's *Commentaries*:

I learned the rudiments from signor Gio. Giorgio Trissino, a very learned gentleman, who to the many disciplines he had mastered had also added a perfect knowledge of this [discipline], as can be clearly seen in his *Italia liberata*.

Trissino's hefty neo-Homeric poem, *L'Italia liberata da' Goti*, had a very long gestation period. Palladio personally brought back some freshly printed copies from Rome to Vicenza in July 1547, to deliver them to Ciro Trissino, Giangiorgio's son.<sup>82</sup> As John Hale remarks, Trissino's description of General Belisarius' battles against the Goths are based on a profound knowledge of the ancient tacticians' texts.<sup>83</sup> In Book vi, for example, the officer Paulo illustrates to General Belisarius his troops' skills in manoeuvring, and his description is in fact a transposition of Aelian's *Tactics*:

They know how to form and change each phalanx, / they can make it oblique, transverse or straight, / they can make it into a wedge, into a rostrum, or inflected at the front / or behind or in a plinth or wholly inflected or curved; / and similarly the horsemen know how to form / into a square, rhombus, pendulum or egg.<sup>84</sup>

Similarly, the description of how General Belisarius organises his army, with the the various units, the hierarchy and weapons, comes straight from the pages of Polybius (vi, Chapters 21-25).<sup>85</sup> One passage in Book xii of *L'Italia liberata* presents in dramatic form a formation described by Aelian:

Here the excellent captain halted, / and made all the Roman horsemen / immediately form a rhombus; / and he positioned himself at the top / in front of all the others, and on the right / he placed Aquilinus, and he placed on the left / Constantius and at the rear Trajan, / who looked to the city of Rome. / The Goths, who saw that order, / held their reins in hand; so that Gradivus, / who had assumed the semblance of Haldibald, / said this to Prince Fabalt: / Fabalt, go to Vitiges, and tell him / to come here to the rear and bring all the infantry; / tell him to make them into two phalanxes / that turn all the fronts against each other, / and that the space between one and another / is wide at the beginning and

narrow at the end / in the shape of a tailor's scissors / so that we can slay all / those horsemen ordered in a rhombus. / Gradivus said this; and the good Fabalt / did not hear those words in vain, / but went running towards the crowd / that had just crossed the bridge / and gave this embassy to his king, / who, on hearing it, called Serestes, / Rubicon and Wallia, his sergeants / and trusty heralds, and told them to quickly / put their men in formation / according to what the good Fabalt had said; / but they knew not how, they were ill versed / in the orders and the art of war: / so Gradivus, who realised this, / quickly set off to that place / and there he divided all the squadrons / and then ordered them in *giughi* and *versi* / in the twofold phalanx antistomus.<sup>86</sup>

The 'Phalanx duplaris amphistomus, oiceps nuncupatur' comes straight from a page of Aelian.<sup>87</sup> Trissino thus give the ancient writer's text a narrative form, and the capacity to 'narrate' battles through images and not only diagrams is one of the new features of Palladio's Caesar and his Polybius. In 1552 a sophisticated double edition of Aelian (the original Greek with a Latin translation) was published in Venice, based on the manuscript in the Biblioteca Marciana, which had been studied by Trissino. The editor of the work, was Francesco Robortello (1516-1567), a Humanist from Udine and a member of the same Classicist circles frequented by the Vicentine aristocrat.<sup>88</sup> For the first time the battalions of the letters of the alphabet found in earlier editions were replaced by groups of small figures of armies, making it possible to recognise the roles and weapons immediately: in the image of the 'twofold phalanx antistomus' we seem to see the battle described in *L'Italia liberata*. The Greek edition of Aelian of 1552 is dedicated to Mario Savorgnan (1513-1574), a distant relative and a very close friend of Giangiorgio Trissino.<sup>89</sup> The dedication does not seem to be the result of a generic *captatio benevolentiae*, but of a publishing policy, given that three years earlier Savorgnan was also the dedicatee of a selection of 'military' fragments from Polybius' *Histories*, taken from Book vi, Book x on Scipio's skills as a commander, and Book xvii on the comparison of Macedonian phalanxes and those of the Roman legions.<sup>90</sup> A professional soldier and son of one of the heroes of the War of the League of Cambrai, the young Savorgnan had won the affection of Pietro Bembo who, seeing him as a potential husband for his daughter Elena, provides a flattering portrait: 'The most virtuous young man ever in our nobility, learned in Latin and Greek, as handsome as a flower, thoughtful and wellmannered, who has seen a great deal of the world, wise, polite, and in short, capable of pleasing every King.'<sup>91</sup> Savorgnan was to spend most of his life working on a book on the great battles past and present, which was published posthumously in 1599 with the title *Arte militare terrestre e maritima*.<sup>92</sup> The work is divided into four books: the first describes the preparations for war, the second encampments, the third battles in the open field and the fourth fortresses and sieges, including Belisarius' defence of

Rome, which is also described in Trissino's *L'Italia liberata*.<sup>93</sup> A new feature in publishing terms was that the work had a series of 23 illustrations, all on double pages, and in three cases set in a sequence of pairs to illustrate the stages in the battles of Pharsalus, Cannae and Trebbia (these battles were also included by Palladio in the *Commentaries* and in the *Histories*.<sup>94</sup> In the preface, Savorgnan stresses the importance of illustrations as an aid to understanding the text:

Because the writings per se are not adequate and powerful enough to make an impression on our spirits, because they leave the statements and things heard static and almost sculpted, it will not be thankless nor useless also to set them before our eyes by means of signs and paintings, which by almost becoming part of the company of the body's feelings convey them with greater power to the spirit and to the mind.<sup>95</sup>

Palladio expresses the same concept in the dedication to Giacomo Boncompagni in Caesar's *Commentaries*, stressing that the importance of the drawings, since 'submitting to the sense [of sight] that which the mind alone had understood, greatly facilitates the understanding of the Commentaries'. In the dedicatory letter to Polybius he also remarks that he had illustrated 'military deeds on land, sieges of cities, naval battles and the like, which to be easily intelligible lend themselves to being represented in drawing', thus appealing to the 'sense of the eyes' as the best way to the mind (almost paraphrasing Savorgnan). Hale suggested that Savorgnan's approach was the outcome of discussions in intellectual circles which included Trissino, and possibly also the young Palladio.<sup>96</sup> Moreover, it is also worth noting that in Baldassar Castiglione's *Cortegiano*, the Veronese noble Ludovico di Canossa considered drawing and painting to be among the requisite skills for a gentleman. His explanation is particularly relevant for our purposes when he says that from painting

great benefits can be had, and especially during war, from drawing towns, sites, rivers, bridges, forts, fortresses and similar things; for although they may be preserved by memory, which however is very difficult, [as such] they cannot be shown to others.<sup>97</sup>

Mario Savorgnan's work as man of letters and historian was certainly a model for Palladio; although his book was not a direct source, Palladio must have seen it taking shape. Given the close links with Trissino, he may have had access to the materials before printing or even have discussed them with the author. Although we have no documented evidence of this, we do know Savorgnan's materials circulated in manuscript form. In 1562 he sent a copy to Alvise Cornaro: 'And in exchange for the treatises you have sent me, I am sending you some parallels of military actions'.<sup>98</sup> Like Palladio's illustrations, the images in *Arte militare terrestre e maritima* are bird's-eye views, and the book also shares the idea of linking up a sequence of several plates to convey the dynamics of the various stages in battles. There is a considerable difference, however, in terms of visual impact between Palladio's 'stills' of battles and

Savorgnan's images, which remained threedimensional diagrams with explanatory captions set inside the image. The poorer quality of Savorgnan's images can be seen in the plate illustrating the siege of the fort of Tarentum, and the plate of the Battle of Cannae, in which the close-up views do not allow readers to grasp the details of the geographical context. The care taken by Palladio over the orographic context in his images and their visual effectiveness may have come from a different world than the military book tradition: i.e. the market for prints, which had grown rapidly in the 1560s and '70s in Venice. Large numbers of engravings of battles figure prominently in the catalogues of sixteenth-century printers.<sup>99</sup> As Woodward has pointed out, they are the principal products which the print seller Furfante attempts to hawk to his customers in Aretino's *Cortigiana*:

Furfante: fine stories, stories, stories, the Turkish war in Hungary, the sermons of Fra Martino, the Council, stories, stories, the affairs of England, the pomp of the Pope and of the Emperor, the circumcision of the Voivode, the sack of Rome, the siege of Florence, the skirmish of Marseilles with the outcome, stories, stories...<sup>100</sup>

Prints on the subject of war often featured celebrated events of the recent past, but also ongoing conflicts. In this case they were produced in great haste, as on the occasion of the Battle of Lepanto in 1571. At times the printing plates were modified and updated to follow the stages in the conflict, as with the siege of Malta in 1565, when the prints were published in sequence only a month after the events narrated.<sup>101</sup> The key features of these products meant for a wider public were good storytelling and geographical vividness. One of the most significant forerunners of Palladio's etchings was the woodcut *Siege of a City* by Dürer (1527), which although much earlier than Palladio's productions became the model for subsequent images.<sup>102</sup> Unlike Altdorfer's paintings, made two years later, Dürer does not show the heroic deeds of the commanders, but an anonymous army moving across the countryside – a battle 'with no heroes'. And it was this 'design' of the battle, seen as the representation of a functional but also emotionally powerful image set in the natural context that was to become one of the crucial features of prints of battles and also of Palladio's images. In 1561 Domenico de' Franceschi, who was to publish Palladio's *Quattro Libri* in 1570, printed a large woodcut in six sheets showing the Turkish and Christian armies at the gates of Vienna in 1532, but the effect is more didactic than captivating.<sup>103</sup> John Hale has demonstrated how Venice had an unrivalled output of military publications in Europe at the time. The publications ranged from books on fortifications and tactics to handbooks on duelling and military medicine.<sup>104</sup> But it was a book from outside Venice that Hale identified as a particularly important reference model for Palladio's editions: Leonhart Fronsperger's *Von Kayserlichem Kriegsrecht*, printed in Frankfurt in 1566.<sup>105</sup> It had double page illustrations, bird's eye views and the letters of the

alphabet used to indicate the key points in the images accompanied by a legend set outside the images themselves. The fact this book was from the German-speaking world would not have been an obstacle for Palladio, since it was used as a source for some frescoes in the Vicentine villa of Ippolito da Porto, a high-ranking officer who had served honourably with Charles v, winning distinction at the Battle of Mülberg in 1547. The artist for these frescoes from the early 1560s probably came from the workshop of Battista Zelotti, who had worked with Palladio for almost 30 years in villas and *palazzi* in the Veneto.<sup>106</sup>

### **‘Figure in ramo made by Palladio’**

In the frontispiece to the *Commentaries* we read that the book has ‘*figure in ramo* [images from copper plates]... *made by Andrea Palladio to help the reader understand history*’. Similarly in the application for the printing ‘privilege’ (copyright) for the edition he says: ‘I Andrea Palladio having with much expense and long vigils transformed into figures all the Romans’ military orders taken from the Commentaries of Julius Caesar’. The ‘vigils’ (and the ‘labours’ mentioned in the dedicatory letter in the Polybius) clearly refer to the time spent by Palladio in *personally* producing the images. Does this mean that Palladio made the drawings for the edition with his own hand? Of what we know of Palladio as a figurative artist, we can hardly attribute the drawings for the etchings to him. And yet Palladio claims to be the *author* of the two works: the *design* of the volumes, which began with well-defined editorial choices, can thus be attributed to him. Thanks to Giangiorgio Trissino, Palladio had grown up in the world of books, from the early guides to Rome of 1554, to Barbaro’s Vitruvius in 1556, and the *Quattro Libri* in 1570. In planning the editions of Caesar and Polybius, he astutely focused on two areas of the market, books on warfare and prints of battles, which, as we have seen, were particularly flourishing businesses in Venice in those decades. A fascinating study by David Woodward gives a good idea of the quantity of printing plates used to produce maps in Venice and Rome, thus highlighting how in the period 1560-1575 Venice was the leading international market, until business was brusquely interrupted by the plague.<sup>107</sup> In these years the printer Paolo Forlani began to bind prints in albums, produced according to customers’ specific requests. <sup>108</sup> What Palladio produced in his own editions were military ‘atlases’, in which the double-page images – no longer simply inserted between the columns of the text – created a continuous narrative. Working according to these editorial criteria, Palladio proceeded to design full-blown images. Firstly, he identified the passages to be illustrated by thoroughly examining the ancient writer’s text and grasping his spirit. This task was made even more complicated by the lack of significant previous illustrated editions of Caesar and Polybius. He

thus had to decide how to frame the images according to the information available in the text and possibly also from other sources. The apparent lack of uniformity in the style of the plates in Caesar, noted, for example, by Isermeyer and by Hale,<sup>109</sup> is not due to the involvement of several hands, but reflects the continual changes in viewpoint from one image to another as Palladio 'zooms' in and out from the action as dictated by the narrative and his information. We can imagine that at this stage Palladio made some simplified sketches. They would have the same kind of relationship to the final image as the 'mannequin' sketches of statues in his entirely autograph architectural drawings have to the highly polished final drawings made by artist friends for the designs to be presented to patrons. Especially in the edition of Caesar, these sketches may even have survived here and there. This would explain why in Plate xviii of the *Commentaries* Labienus' encampment is only a simple two-dimensional diagram. At the end of the 'design' process, a figurative artist would then transform Palladio's diagrams into the final images. We can surmise that this artist was from Zelotti's workshop, since the *maestro* himself would hardly have been called on for such ultimately straightforward work. The fact that Zelotti settled in Mantua after becoming the supervisor of the *fabbriche ducali* (ducal constructions) in 1575 and that he died in August 1578,<sup>110</sup> might explain the poorer graphic quality of the Polybius plates compared to those of the *Commentaries*. We cannot claim with any certainty that Palladio himself chose copper etching as the medium for reproduction, rather than woodcut, which was used for the *Quattro Libri*. As far as the Polybius is concerned, Palladio personally met the cost of the production of the copper plates, which were still owned by his heirs in 1588. But we do not know if he had a similar financial involvement in the edition of Caesar.<sup>111</sup> The editorial project involving a portfolio of independent double images outside the text certainly meant Palladio depended less on the printer. Domenico de Franceschi, the skilled xylographer and publisher of the *Quattro Libri*, had died not long after and copperplate etching was probably better suited to the format of the illustrations. Compared to engraving with the burin, etching is certainly faster and cheaper, especially considering that the plates of the *Commentaries* and the *Histories* were made in a single etching, i.e. with no more work being carried out after the first acid bath. The operation was further simplified by setting the caption outside the image in a legend on the retro of the sheet, which could be printed at a later stage. Moreover, the versatility and malleability of etching allowed Palladio to achieve those expressive effects required for his aim of providing a visual 'narrative'.<sup>112</sup> At least as far as the Polybius is concerned, it was almost certainly the printer who bore the costs for re-setting the text and printing.

## **Palladio and the Practice of the *Militia***

There is a link – at least in metaphorical terms – between architecture and organising troops. Like an army, builders must be co-ordinated. Large machines must be constructed and supplies procured. Yet in his last two publishing ventures, Palladio was far removed from the strictly professional field of architecture. Investing his own resources, he worked more as an intellectual-entrepreneur than as an architect. He was driven by a passion that dates from his early years and by an entrepreneurial spirit. They alone, however, do not fully explain his motivation; nor does a purely academic interest. In the ‘*Proemio*’ to the *Commentaries*, Palladio writes:

And although most of our principal Captains say that armies cannot be governed with the order and skill of the Ancients, which we would like for our artillery and arquebuses, at least in this they are mistaken, since they would operate much better with order than with confusion. They also say that the ancient orders are difficult and impossible to adapt to the customs of our times, but in this (as in other matters) they are again mistaken, because the ancient soldiers were peasants and craftsmen, for the most part uncouth and uneducated, and neither were their captains demigods, but men like us, and the manoeuvres are easy and clear to those who understand their principles. This having been clarified to me, since I found myself in the company of some gentlemen well versed in the affairs of war, I ordered (for their pleasure) some galley oarsmen and pioneers, who were here, to do all those manoeuvres and military drills that can be carried out, without creating any disorder or confusion whatsoever; thus, with less difficulty than many imagine, the Ancients’ orders and rules could be introduced to our armies.

In a passage made celebrated by Hale, Francesco Patrizi (1529-1597), an intellectual who published Polybius after Palladio (Patrizi had actually tried to beat him to it)<sup>113</sup> wrote:

The Vicentine Andrea Palladio, an architect by profession, and Valerio Chiericato who had never seen war in our day, but books by Aelian, and Leo and Caesar, were able to amaze those present. They saw the first disembark the crew and soldiers from a galley in marvellously good order. And [then] the second had 500 infantrymen do all of Aelian’s military drills in great order and with ease. And I was one of the spectators.<sup>114</sup>

The two quotes may refer to the same episode: a disembarkation of troops and their manoeuvres on land. Thanks to Patrizi, we know that Palladio was at the side of the cavalry colonel Valerio Chiericati (1528-1576).<sup>115</sup> A cousin of the Chiericati who owned a famous Palladian *palazzo*, Valerio is the prototype Vicentine aristocrat combining an interest in arms and letters in the Trissino mould. He was also a rustic poet celebrated in Giambattista Maganza’s *Rime* with the name Chiavellin, as well as being a founder of the Accademia Olimpica and its ‘principal’ in 1561-1562, and thus involved in promoting the production of



Trissino's *Sofonisba* directed by Palladio. At the same time he was a professional soldier and, like Mario Savorgnan, was convinced that the Venetian army should be reorganised also by studying the ancient tacticians. When, in 1573, he was sent by the Venetian Senate to Friuli to train the peasant territorial militia, he organised the ranks according to the model of the Roman legion and the Macedonian phalanx. Having studied Greek and Roman warfare, Chiericati wrote a 92-chapter treatise on the *Militia*. In this unpublished manuscript he adapted the ancient orders to contemporary practices, especially the use of firearms.<sup>116</sup> Palladio mentions him in the *Commentaries* as a 'great knight, an ancient example of ancient valour', and in the *Histories*, as the example of a commander who more than any other had put into practice the lessons of the ancient Greeks and Romans. Chiericati died on Crete in 1576. He had been sent there to organise the Venetian troops in October 1574 (thus providing us with a terminus ante quem for the manoeuvres with Palladio). In the passage quoted above, Francesco Patrizi stressed that the manoeuvres directed by Palladio and Chiericati, did not follow the contemporary practice of warfare, but were entirely inspired by ancient treatises. Matteo Bandello describes a similar episode in the prologue to his *Novella* xl, in which he mocks Machiavelli's failed attempt to put his own theoretical principles on the 'orders' into practice in the field. The day was peremptorily saved by the expert Giovanni delle Bande Nere:

That day Messer Niccolò keep us waiting in the sun for over two hours to order three thousand infantry according to the formation he had written, but he never managed to order them. Yet he spoke so well and clearly and showed with his words what seemed to be extraordinarily easy, that I, who know nothing about it, believed on hearing his explanations and talk that I could have ordered the infantry... But you [Giovanni delle Bande Nere], on seeing that Messer Niccolò was not about to solve the problem so quickly, said to me: Bandello, I am going to get us all out of this bother so we can go and dine. And having said this to Macchiavelli, who withdrew to let you do it, in a wink with the aid of drums you ordered those men in various ways and forms to the admiration of all those who were there.<sup>117</sup>

In the episode retold by Patrizi, however, the soldier and the scholar successfully jointly organised the manoeuvres.<sup>118</sup> In Chapter 68 of *Militia*, Chiericati actually meticulously criticises Machiavelli's theories on the military techniques of the ancient Roman armies, citing Livy and Vegetius, and accuses the Florentine of being unrealistic and unable to adapt what he had read in books to the changes in contemporary warfare and the use of firearms, the theme mentioned in Palladio's '*Proemio*' from which we quoted earlier. Just as Palladio had turned in the practice of architecture to the examples of ancient Rome as a model for constructing buildings in his own time, so too he made available his knowledge of the military 'orders' of

Caesar, Hannibal and Scipio as a source from which to pursue contemporary practice. He did so – again as in his architecture – without neglecting the experience of his own age, whether the source was Della Valle’s text or the unfolding of real military campaigns on which he was kept up to date by friends like Stefano Angarano. ‘Defending the dominions and cities is what is most important.’ In his *Preface* to the *Commentaries*, Palladio thus reveals a civil commitment driving his interest in warfare. For Leon Battista Alberti, it is one of the architect’s major duties. Palladio may have read Alberti’s striking words on the subject in his preface to *De Re Aedificatoria*, in the ‘Florentine’ translation by his friend Cosimo Bartoli, published in Venice:

And if you were to examine the expeditions that have been undertaken, you might well find that most victories were won more through the art and skills of the architects, than through the conduct or fortune of the commanders; and that the enemy was more often overcome and conquered by the architect’s wit, without the commander’s arms, than by the commander’s arms without the architect’s wit, And what is of great importance is that the architect conquers with a few men, and without the loss of troops.<sup>119</sup>

In this book Claudio Povolo discusses in depth how in the Veneto society in the second half of the sixteenth century, but also elsewhere, the idea of nobility of conduct began to emerge alongside the concept of nobility of blood. Social progress was thus made possible – to use Cesare Campana’s words – through ‘virtuous actions aimed at public utility’.

In a dispute between a craftsman and the Vicentine noble Claudio Muzani in Vicenza in May 1571, the latter refused to pay the costs for the design of some work on his country villa, arguing that:

we are not in the habit in this country of paying others than Palladio for designs, because the truth is that all the designs of any importance made by other people in the Vicenza area refer to the said Palladio.<sup>120</sup>

This claim was promptly rebutted by the craftsman, but it is a telling indication of the prestige of the man perceived as the city architect, or the architect of the *res publica*, to continue with Povolo’s words, and also those of Palladio himself in Book ii of the *Quattro Libri*.<sup>121</sup> In 1580 Palladio revived an ancient tradition to build a theatre for the Accademia Olimpica, the association bringing together the Vicentine cultural élite. Significantly, the Accademia had accepted him as a member, despite the fact he was not a noble, right from its foundation in 1556. In the same years Palladio reconstructed the battles of the ancient world, and discussed strategy with military aristocrats. Theatre, architecture and militia. Giangiorgio Trissino’s teaching had completed the transformation of *Mastro Andrea* into *Messer Andrea Palladio*: the skilful master stonemason had become an architect and a ‘virtuous’ intellectual.

- <sup>1</sup> G. Beltramini, *Palladio privato*, Venice 2008, pp. 7-19. <sup>2</sup> *Primo dialogo. Parlamento di Ruzante che iera vegnù da Campo*, in Ruzante, *Teatro*, edited by L. Zorzi, Turin 1967, pp. 513-543.
- <sup>3</sup> G. Beltramini and E. Demo, 'Nuovi documenti e notizie riguardanti Andrea Palladio, la sua famiglia e il suo lavoro', in *Annali di architettura*, 20 (2008), pp. 129-131.
- <sup>4</sup> A. Palladio, 'Proemio', in *I Commentari di C. Giulio Cesare*, Venice 1575.
- <sup>5</sup> J. R. Hale, 'To fortify or not fortify? Machiavelli's contribution to a Renaissance controversy', in *Essays in Honour of John Humphreys Whitfield*, edited by H.C. Davis et al., London 1975, pp. 99-119.
- <sup>6</sup> L.B. Alberti, *De Re Aedificatoria*, iv, 3.
- <sup>7</sup> A campaign to survey the Vicentine defences in 1544 and an arbitration on the fortresses of Chioggia and the Lido in 1574-1575: L. Puppi and D. Battilotti, *Andrea Palladio*, Milan 1999, pp. 261, 453, 503. <sup>8</sup> Vitruvio, *I dieci libri dell'architettura tradotti e commentati da Daniele Barbaro*, Venice 1556 (henceforth Vitruvio, Barbaro edn, 1556), fols 38v-39r.
- <sup>9</sup> A. Palladio, *I Quattro Libri dell'Architettura*, Venice 1570, iii, pp. 12-14.
- <sup>10</sup> H. Burns, "'Da naturale inclinazione guidato": il primo decennio di attività di Palladio architetto', in *Storia dell'architettura italiana. Il primo Cinquecento*, edited by A. Bruschi, Milan 2003, pp. 377-378.
- <sup>11</sup> H. Burns, *Andrea Palladio 1508-1580. The Portico and the Farmyard*, exhibition catalogue, London 1975, p. 44.
- <sup>12</sup> J. Hale, 'A Humanistic Visual Aid. The Military Diagram in the Renaissance', in *Renaissance Studies*, 2, 2 (October 1988), pp. 282, 290.
- <sup>13</sup> J. Hale, 'Andrea Palladio, Polybius and Julius Caesar', in *Journal of the Warburg and Courtauld Institutes*, 40, 1977, p. 244.
- <sup>14</sup> G. Beltramini, 'Studies of military formations', in *Palladio*, edited by G. Beltramini and H. Burns, London 2008 (henceforth *Palladio 2008*), pp. 350-351.
- <sup>15</sup> Palladio could consult the text in a Latin edition and in partial Italian translations, such as *Libro della militia de romani et del modo dell'accampare tratto dall'Historia di Polibio*, n. p. (Venice?) 1536. On Polybius' reception in the Renaissance, see A. Momigliano, 'Polybius' Reappearance in Western Europe', in *Polybe: Entretiens sur l'Antiquité Classique*, xx, Geneva 1974, pp. 347-372.
- <sup>16</sup> G. Beltramini, 'Ancient battles', in *Palladio 2008*, pp. 342-355, and 'Palladio e l'architettura della battaglia: le edizioni illustrate di Cesare e Polibio', in *Palladio 1508-2008. Il simposio del cinquecentenario*, Venice 2008 (henceforth *Simposio 2008*), pp. 217-229, especially p. 220.
- <sup>17</sup> S. Serlio, *Architettura civile*, edited by F.P. Fiore, Milan 1994, p. 551.
- <sup>18</sup> G. Beltramini, 'Andrea Palladio (?). Castrametatione di Belisario', in *Andrea Palladio e la villa veneta da Petrarca a Carlo Scarpa*, edited by G. Beltramini and H. Burns, Venice 2005, pp. 295-296; Beltramini, 'Palladio e l'architettura della battaglia...', p. 220, note 23.
- <sup>19</sup> A. Palladio, *L'antichità di Roma. 1567*, Milan 2006, p. 50. Palladio only devotes a few lines to the subject: 'Of the Roman army on land and at sea and their ensigns. The Romans (as Appian writes) had at the time of the emperors two hundred thousand foot soldiers and forty thousand horsemen, three hundred elephants, two thousand carriages and more for the needs of 300 thousand armed men. The navy had two thousand ships and 1500 galleys with from two to five [rows of ] oars. They had many military ensigns, but the proper Roman one was the eagle.'
- <sup>20</sup> G. Zorzi, *Le ville e i teatri di Andrea Palladio*, Venice 1969, pp. 269-270, 275; H. Burns, *Il giuoco del palazzo, ovvero Palladio in piazza*, Venice 2003, pp. 65-70.
- <sup>21</sup> *Discorso del S. Guglielmo Choul gentilhuomo lionese*, Padua 1558. The story of Sophonisba was the subject of a fresco by Giovanni Antonio Fasolo in the second half of the 1560s in the Villa Caldogno, designed by Palladio: *Gli affreschi nelle ville venete. Il Cinquecento*, edited by G. Pavanello and V. Mancini, Venice 2008, pp. 189-192.<sup>22</sup> *Leonardi de Portis iurisconsulti Vicentini De sestertio pecuniis ponderibus et mensuris antiquis libri duo*, Venice circa 1520.
- <sup>23</sup> H. Burns, 'Valerio Belli vicentino', in *Valerio Belli Vicentino 1468c.-1546. Scultore della luce*, edited by H. Burns, M. Collareta and D. Gasparotto, Vicenza 2000, p. 27.

- <sup>24</sup> G. Barbarano, *Promptuarium rerum quam plurimum in re praesertim Romana*, Venice 1567.
- <sup>25</sup> H. Burns, 'Prefazione', in *Guida a palazzo Barbaran da Porto*, edited by G. Beltramini, Vicenza 2000, p. 7.
- <sup>26</sup> G. Beltramini, 'Palazzo Porto', in *Palladio 2008*, p. 74.
- <sup>27</sup> H. Burns, 'Studies of the Roman theatre as described by Vitruvio and other sketches', in *Palladio 2008*, p. 252.
- <sup>28</sup> *Cronaca di Fabio Monza*, edited by L. Puppi, Vicenza 1988, p. 14.
- <sup>29</sup> G. Marzari, *La Historia di Vicenza*, Vicenza, Giorgio Greco, 1604, pp. 164-167. I am indebted to Claudio Povoletto for having reminded me of this passage.
- <sup>30</sup> T. Temanza, *Vita di Andrea Palladio Vicentino*, Venice 1762, p. lxi, no. 33; A. Magrini, *Memorie intorno la vita e le opere di Andrea Palladio*, Padua 1845, *appendice* pp. 29-43, *annotazioni*, pp. xlvii-xlix, no. 65; Burns, *Andrea Palladio 1508-1580. The Portico and the Farmyard...*, p. 110; Hale, 'Andrea Palladio, Polybius and Julius Caesar', pp. 240-255; C.A. Isermeyer, 'I Commentari di G. Cesare nell'edizione palladiana del 1575 e i suoi precedenti', in *Bollettino cisaap*, xxi (1979), pp. 253-271; *Testimonianze veneziane di interesse palladiano. Mostra documentaria*, edited by M.F. Tiepolo, Venice 1980, pp. 71-72; L. Puppi, 'Palladio e l'arte della guerra', in *Contributi su Andrea Palladio nel quarto centenario della morte (1580-1980)*, Venice 1982, pp. 11-32; L. Puppi, *Andrea Palladio. Scritti sull'architettura (1554-1579)*, Vicenza 1988, pp. 175-196; Puppi and Battilotti, *Andrea Palladio*, pp. 523-526.
- <sup>31</sup> G. Bacci, "'Arte veramente rara, stupenda e miracolosa": i Quattro Libri di Andrea Palladio e il contesto editoriale-figurativo', in *Simposio 2008*, pp. 202-207, especially pp. 204-206.
- <sup>32</sup> *Testimonianze veneziane di interesse palladiano. Mostra documentaria...*, pp. 71-72; Bacci, "'Arte veramente rara, stupenda e miracolosa"...', p. 206, note 25.
- <sup>33</sup> C. Witcombe, *Copyright in the Renaissance. Prints and the Privilegio in Sixteenth-Century Venice and Rome*, Leiden 2004, pp. 252-283, especially pp. 264-265.
- <sup>34</sup> Gaius Iulius Caesar, *Commentariorum de bello Gallico libri 8. De bello civili Pompeiano libri 4. De bello Alexandrino liber 1. De bello Africano liber 1. De bello Hispaniensi liber 1. Pictura totius Galliae, diuisae in partes tres, secundum C. Caesaris commentarios. Venetijs, in aedibus Aldi, et Andreae soceri, 1513 mense aprili*. G. Beltramini and P. Gros, 'Il ponte di Cesare sul Reno', in *John Soane e i ponti in legno svizzeri. Architettura e cultura tecnica da Palladio ai Grubenmann*, edited by A. Maggi and N. Navone, Mendrisio 2002, pp. 178-179; P.N. Pagliara, 'Giocondo Giovanni', in *Dizionario Biografico degli Italiani*, vol. 56, Rome 2001, pp. 326-338, especially p. 336.
- <sup>35</sup> *C. Iulij Caesaris Rerum gestarum commentarij 14 [...] Cum doctiss. annotationibus: Henrici Glareani, Fuluij Vrsini Romani, Francisci Hotomani, I. C. Aldi Manutij, P. F. ex musæo & impensis Iacobi Stradae Mantuani, S. C. M. antiquarij, & ciuis Romani*. Frankfurt 1575; D.J. Jansen, 'L'édition des Commentaires de César par Jacopo Strada', in *Sebastiano Serlio à Lyon. Architecture et imprimerie*, edited by S. Deswarte-Rosa, i, Lyon 2004, pp. 189-191.
- <sup>36</sup> *I commentari di C. Giulio Cesare, con le figure in rame de gli alloggiamenti, de' fatti d'arme, delle circonuallationi delle città, & di molte altre cose notabili descritte in essi. Fatte da Andrea Palladio per facilitare a chi legge, la cognition dell'istoria*. In Venetia: appresso Girolamo Foglietti, al segno della Regina, 1598; *Commentari di C. Giulio Cesare. Con le figure in rame, di Andrea Palladio. Le quali rappresentano à gl'occhi di chi legge, accampamenti, ordinanze, & incontri di esserciti, città, fiumi, siti de paesi, & altre cose notabili contenute*
- <sup>37</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', pp. 248-254.
- <sup>38</sup> G. Montenari, *Del teatro Olimpico di Andrea Palladio in Vicenza*, 2nd edn, Padua 1749, pp. vii-xii.
- <sup>39</sup> Montenari, *Del teatro Olimpico...*, p. x.
- <sup>40</sup> G. Fontanini, *Biblioteca dell'eloquenza italiana con le annotazioni del signor Apostolo Zeno*, ii, Venice 1753, pp. 398-399 and especially p. 398.
- <sup>41</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 240. Algarotti deals with Palladio's studies in the second edition of *Lettere militari* (the first edition had been printed in Venice by Antonio Zatta in 1759): *Lettere militari. Seconda edizione corretta e molto accresciuta dall'autore*, printed by Giambattista Novelli, Venice 1762. In this book, as well as republishing the twenty letters making up the first edition, Algarotti added a separate section with its own title – *Lettere sopra vari punti spettanti a cose di guerra* ('Letters on various points pertaining to the affairs of war') – and renumbered the pages from 1 to 88. From page 33 to page 41 of this second section we find the *Lettera al signor abate Gasparo Patriarchi a Venezia. Sopra gli studi militari fatti da*

*Andrea Palladio* ('Letter to Abbot Gaspare Patriarch of Venice. On the military studies undertaken by Andrea Palladio') dated 'Bologna 4 September 1759'. In 1764 the letter was republished in the fourth volume of the *Opere del conte Algarotti*, Livorno 1764. Entitled *Opere Militari*, this volume was divided into two separate sections: 'The Military Science of the Florentine Secretary' and 'Military Discourses' in which the fourth 'discourse' is *Sopra gli studi fatti da Andrea Palladio nelle cose militari* ('On the studies undertaken by Andrea Palladio on military affairs'), pp. 164-169. I am indebted to Stephen Parkin for having clarified the history of the edition.<sup>42</sup> Temanza, *Vita di Andrea Palladio Vicentino*, p. lxii. <sup>43</sup> Magrini, *Memorie intorno la vita e le opere di Andrea Palladio*, pp. 118-121, especially note 68.

<sup>44</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 251.

<sup>45</sup> Magrini remarks that the title *Serenissimo Gran Duca*, used at the beginning of the letter, was only granted by Pius v to Cosimo de Medici on 28 August 1569 and that Francesco only officially succeeded his father Cosimo in 1574. Moreover, the letter was preserved in the correspondence to Francesco containing all the letters from 1579-1580. The fact that Gualdo also claims that the Polybius was dedicated to Francesco de Medici, corroborates the suggestion that he date was a copyist's mistake. Magrini, *Memorie intorno la vita e le opere di Andrea Palladio*, pp. 120-121.

<sup>46</sup> *Bollettino Libreria L. Gonnelli e figli*, s. iv, no. 29, Winter 1986-1987, no. 191, pp. 37-38.

<sup>47</sup> Puppi, *Andrea Palladio. Scritti sull'architettura...*, p. 182; Puppi and Battilotti, *Andrea Palladio*, pp. 526-528.

<sup>48</sup> G. Beltramini, 'Mock-up of an illustrated Italian edition of Polybius' *Histories*', in *Palladio 2008*, pp. 353-355, and 'Palladio e l'architettura della battaglia...', pp. 217-219.

<sup>49</sup> Puppi, *Andrea Palladio. Scritti sull'architettura...*, p. 183.

<sup>50</sup> A. Belluzzi, 'Palladio e la cultura artistica fiorentina', in *Simposio 2008*, pp. 100-104, especially pp. 101-102.

<sup>51</sup> See documents in the Appendix.

<sup>52</sup> Guido Beltramini, 'Una copia delle "Storie" di Polibio illustrate da Andrea Palladio nella New York Public Library', in *Saggi di letteratura architettonica, da Vitruvio a Winckelmann*, iii, edited by H. Burns, Florence 2009, forthcoming.

<sup>53</sup> C. Rizza, *Peiresc e l'Italia*, Turin 1965, p. 54; Puppi, 'Palladio e l'arte della guerra', p. 19.

<sup>54</sup> *Peiresc to Lorenzo Pignoria*, 25 July 1618, in Archives et musées de Carpentras, *Bibliothèque Inguimbertaine*, ms 1875, fols 350 to 353r, especially fol. 353r.

<sup>55</sup> M. Pupillo, 'Per un riesame del collezionismo di Paolo Gualdo', in *Venezia arti*, 12 (1998), pp. 27-36; M. Pupillo, 'Di nuovo intorno al cardinale Ottavio Paravicino, a monsignor Paolo Gualdo e a Michelangelo da Caravaggio: una lettera ritrovata', in *Arte Veneta*, 54 (1999), pp. 164-169; C. Volpi, 'Lorenzo Pignoria e i suoi corrispondenti', in *Nouvelles de la république des lettres*, 12 (1992), 2, pp. 71-127.

<sup>56</sup> Palladio also described two episodes which were to be illustrated in the subsequent edition of Polybius: Xanthippus's victory over Attilius Regulus (Plate 8) and Hamilcar Barca's victory over Spendius (Plate 14).

<sup>57</sup> The plates are numbered according to their current position in the English exemplar, but there is no reason they should not have been consecutive, as in the Florentine exemplar.

<sup>58</sup> Polybius, *Dell'impresae de' Greci, de' Asiatici, de' Romani et d'altri*, edited by Lodovico Domenichi, Venice 1564 (henceforth Polibio, Domenichi edn, 1564), p. 18.

<sup>59</sup> E. Concina, *Navis. L'umanesimo sul mare (1470-1740)*, Turin 1990, figs 15 and 41.

<sup>60</sup> Concina, *Navis...*, pp. 55-59; F. Piovan, 'Fausto, Vittore', in *Dizionario Biografico degli Italiani*, vol. 45, Rome 1995, pp. 398-401.

<sup>61</sup> P. Bembo, *Lettere*, edited by E. Travi, iii, Bologna 1992, pp. 45-47; Concina, *Navis...*, p. 84.

<sup>62</sup> On Savorgnan and Chiericati, see the following pages; as regards Leonardi, orator in Venice for Francesco Maria della Rovere, Duke of Urbino from 1528, he also signed Giangiorgio Trissino's will of 1543, and Daniele Barbaro gave a preview of the contents of his treatise on military architecture in the edition of Vitruvius (1556): V. Mandelli, 'Leonardi, Giovan Giacomo', in *Dizionario Biografico degli Italiani*, vol. 64, Rome 2005, pp. 411-413.

<sup>63</sup> Frédérique Verrier, *Les armes de Minerve. L'Humanisme militaire dans l'Italie du xvie siècle*, Paris 1997

<sup>64</sup> Concina, *Navis...*, pp. 149-150.

<sup>65</sup> Palladio, *I Quattro Libri dell'Architettura*, iii, p. 16: 'There is no example of this type [of wooden bridge] in Italy, but during discussions on the subject with Alessandro Picheroni of Mirandola, he told me he had seen one in Germany.' On Palladio and

carpentry, see M. Piana, 'Cantiere e costruzione', in *Palladio 2008*, p. 320.

<sup>66</sup> A. Zador, 'La penetrazione delle forme palladiane in Ungheria', in *Bollettino cisaap*, viii (1966), part ii, pp. 134-150, especially p. 141; Puppi and Battilotti, *Andrea Palladio*, p. 332; Concina, *Navis...*, pp. 125-126. The document is in the Central State Archives, Budapest, Cameral Archives, col. Lymbus, series iii, folder 18, fol. 597: 'My Illustrious Sir, having been to see the construction made to raise the galleon, which will soon be ready, next Monday the water will be baled out, and since your Lordship told me you did not wish to come to see the operation in this heat, I am sending you a drawing of the side and the head, in which one can see how the beams are bound, with the measurements of the widths, lengths, and heights...'

<sup>67</sup> Vitruvio, *Barbaro* edn, 1556, pp. 51-53.

<sup>68</sup> Vitruvio, *De Architectura*, edited by P. Gros, Turin 1997, pp. 28-29.

<sup>69</sup> Concina, *Navis...*, pp. 170-172.

<sup>70</sup> Concina, *Navis...*, pp. 102 and 153-155.

<sup>71</sup> G. Zorzi, *Le opere pubbliche e i palazzi privati di Andrea Palladio*, Venice 1965, p. 133; G. Beltramini, 'Stefano Angarano. Mappa con le postazioni delle truppe intorno a Lisbona', in *Palladio 2008*, p. 355; Beltramini, in *Simposio 2008*, pp. 266 and 228.

<sup>72</sup> Polibio, *Domenichi* edn, 1564, p. 246.

<sup>73</sup> Beltramini, 'Palladio e l'architettura della battaglia...', p. 219.

<sup>74</sup> Polibio, *Domenichi* edn, 1564, pp. 292-293.

<sup>75</sup> Polibio, *Domenichi* edn, 1564, pp. 392-393.

<sup>76</sup> H. Burns, 'Models to follow: studying and restoring the ruins', in *Palladio 2008*, pp. 286-299.

<sup>77</sup> H. Burns, 'Plan and elevation of the Vitruvian monopteral temple', in *Palladio 2008*, p. 284.

<sup>78</sup> H. Burns, 'Pirro Ligorio's Reconstruction of Ancient Rome: the *Anteiquae Urbis Imago* del 1561', in *Pirro Ligorio Artist and Antiquarian*, edited by R. Gaston, Milan 1988, pp. 19-92. André Corboz attributes a plan of the Iroquoian township of Hochelaga to Andrea Palladio. The plan appears in the third volume of *Delle Navigazioni et Viaggi* by Giovanni Battista Ramusio, published in Venice in 1556; A. Corboz, 'La pianta di Hochelaga (1556) come opera di Andrea Palladio', in *Bollettino cisaap*, xx (1978), pp. 145-155; A. Corboz, 'Una città sognata. (Daniele Barbaro, Andrea Palladio e la pianta di Hochelaga, oggi Montreal)', in *Palladio e Venezia*, edited by L. Puppi, Florence 1982, pp. 81-87.

<sup>79</sup> *Alte Pinakothek Munich. Inventory Catalogue. Explanatory Notes on the Works Exhibited*, Munich 1986, pp. 41 and 95.

<sup>80</sup> M. Binotto, 'Il salone dei Cesari', in *Guida a palazzo Barbaran da Porto*, edited by G. Beltramini, Vicenza 2000, pp. 53-55; J. Kliemann, *Gesta dipinte: la grande decorazione nelle dimore italiane dal Quattrocento al Seicento*, Cinisello Balsamo 1993.

<sup>81</sup> Hale, 'A Humanistic Visual Aid...', pp. 284-298.

<sup>82</sup> B. Morsolin, *Giangiorgio Trissino: monografia d'un gentiluomo letterato nel secolo xvi*, Florence 1894, p. 280.

<sup>83</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 244.

<sup>84</sup> G. Trissino, *L'Italia liberata da' Goti*, Venice 1835, Book vi, p. 84.

<sup>85</sup> Trissino, *L'Italia liberata...*, Book ii, p. 29.

<sup>86</sup> Trissino, *L'Italia liberata...*, Book xii, p. 199.

<sup>87</sup> The text was available in Latin even before Robortello's edition, for example, in: *Fl. Vegetii Renati viri illustris De re militari libri quatuor. Sexti Iulii Frontini viri consularis de Strategematis libri totidem. Aeliani de insuendis aciebus liber vnus. Modesti de vocabulis rei militaris liber vnus. Item picturae bellicae 120 passim Vegetio adiectae. Collata sunt omnia ad antiquos codices, maxime Budaei, quod testabitur Aelianus*, Paris 1535.

<sup>88</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 244.

<sup>89</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', pp. 244-245.

<sup>90</sup> *Polybius. Quinque fragmenta decerpta ex ejus historiarum libris quadraginta. Raphael Cyllenius vertebat*, Venice 1549.

<sup>91</sup> This is what Bembo wrote to Girolamo Quirini in 1542: P. Bembo, *Lettere*, edited by E. Travi, iv, Bologna 1993, pp. 437-438. On Savorgnan, see L. Casella, 'Modelli ideali, cultura militare e dimensione politica. Intorno ad aristocrazia di governo e nobiltà di terraferma a Venezia fra Cinque e Seicento', in *Annali di storia moderna e contemporanea*, 7 (2001), pp. 355-374; L. Casella, *I Savorgnan: la famiglia e le opportunità del potere (secc. xv-xviii)*, Rome 2003.

<sup>92</sup> *Arte militare terrestre e marittima; secondo la ragione, e l'uso de piu valorosi capitani antichi, e moderni. Già descritta, e divisa*

*in quattro libri dall'illustrissimo signor Mario Savorgnano conte di Belgrado... Et hora ridotta alla sua integrita, & politezza da Cesare Campana, da esso data in luce*, In Venetia, appresso gli haeredi di Francesco de' Franceschi, 1599. The volume was republished by Sebastiano Combi in Venice in 1616; Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 252.

<sup>93</sup> Savornan, *Arte militare terrestre e maritima...*, iv, 243-246.

<sup>94</sup> The subjects of the plates are: Roman encampment (pp. 69-79); Roman quarters of two consuls and four legions (pp. 77-78); Siege of Alesia (pp. 83-84); Encampment of Francesco Maria Duke of Urbino at Cassano (pp. 89-90); Battle between Caesar and the Nervi (pp. 95-96); Battle of Cannae (pp. 141-142, 143-144); Battle of Ravenna (pp. 151-152); Battle of the Trebbia (pp. 157-158; pp. 159-160); Battle of the Cerisola (pp. 165-166); Battle of Trasimeno (pp. 169-170); Battle of Cadore (pp. 173-174); Battle between Alexander and Darius at Arbella (pp. 185-186); Battle between the Emperor Otto of Brunswick and King Philip of France at Bovino (pp. 187-188); Battle of Pharsalus (pp. 191-192, 193-194); Corbana's Persian army defeated by the Christian army at Antioch in mlxviii (pp. 197-198); Battle of Zama (pp. 201-202); Battle of the King of France at Oudenarde (pp. 205-206); Battle of Agnadello (pp. 209-210); Battle of Prospero Colonna at La Bicocca (pp. 213-214); Siege of Tarentum (pp. 253-254).

<sup>95</sup> 'Proemio', in Savornan, *Arte militare terrestre e maritima...*

<sup>96</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 252

<sup>97</sup> B. Castiglione, *Il libro del Cortegiano*, Turin 1998, p. 103: the passage is mentioned in D. Woodward, *Map as Prints in the Italian Renaissance. Makers, Distributors & Consumers*, London 1995, p. 20.

<sup>98</sup> E. Lippi, *Cornariana. Studi su Alvise Cornaro*, Padua 1983, p. 170. *Del governo della sua famiglia. Lettera di Mario Savorgnano a Luigi Cornaro, 8 febbraio 1562*, published for the Trento-Cavalli wedding, Udine 1863. The link between Savornan and Cornaro probably goes back to Savornan's father, Girolamo, who according to Vasari was a patron of Cornaro's friend Falconetto: 'he [Falconetto] made the model of a superb *palazzo* for Signor Girolamo Savorgnano in his formidable castle of Usopo in Friuli, which then had all the foundations laid and was raised above the ground; but when the gentleman died, it remained in that condition without further progress being made: had the building been completed, it would have been splendid'. G. Vasari, *Le vite de' più eccellenti pittori, scultori e architettori*, Florence 1568, iv, p. 592.

<sup>99</sup> F. Borroni Salvadori, *Carte, piante e stampe storiche delle raccolte lafreriane della biblioteca nazionale di Firenze*, Rome 1980.

<sup>100</sup> P. Aretino, *La Cortigiana*, Act i, Scene iv. Woodward, *Map as Prints in the Italian Renaissance...*, p. 93.

<sup>101</sup> Woodward, *Map as Prints in the Italian Renaissance...*, pp. 93-102; M. Infelise, *Prima dei giornali. Alle origini della pubblica informazione (secoli xvi e xvii)*, Rome-Bari 2002.

<sup>102</sup> Isermeyer, 'I Commentari di G. Cesare...', p. 268. On the engraving see G.M. Fara, *Albrecht Dürer. Originali, copie, derivazioni*, Florence 2007, pp. 366-368.

<sup>103</sup> J.D. Passavant, *Le Peintre-Graveur*, vi, Leipzig 1804, p. 241, no. 91a. A cartouche in the top left margin of the sheet has the following inscription: 'Domenico de' Franceschi to his readers. Having published a year ago the plate of a Turkish army, which, in my opinion, was appreciated by many, and spurred on by the conviction of some friends, I similarly wished to publish the same plate of the Christian army, and accompanying it with the Turkish one, place Vienna between them, almost to emulate those two very great armies that were at Vienna in the year 1532. Thus you can mainly see, between the Christian and Turkish armies, a very fine shelter made by the Christians, and beyond a well-ordered half circle of artillery, admirable with its clay gabions, which made a great bulwark for the army. At its sides are the sappers, and in the said half circle the vanguard of the German infantry, behind which comes a square squadron of Spanish infantrymen, on whose right wing is the German cavalry and on the left the Italian, whose cavalry is no wider than five soldiers for each row. They are separated by the same space from the Spanish infantry and behind this left wing, very far from the camp, is the Saxon infantry and three very large squadrons of men at arms lined up pair by pair. Of these squadrons the one at the centre is Spanish, in which is the person of the very illustrious Emperor Charles v; the righthand side one is that of the Italian men at arms and that on the left the Germans; behind them are the Emperor's mules, that is his carriages and riches, next is the horse-drawn artillery, guarded on one side by Italian infantry and on the other by the Bohemian cavalry, behind which follows the rearguard of the German infantry with the munitions, with on the right wing a band of Flemish horses and on the left a squad of infantry, which guards the munitions and the carriages of supplies following the camp. Beyond this are some Turkish prisoners, as can be seen in various places. Valeté.

Of Venetia, 1 January 1560. [Printed] in Venice by Domenico di Franceschi 1561.' The right-hand side of the image comes from a print by Sebastiano de Valentinis of 1558: cf. M. Bury, *The Print in Italy, 1560-1620*, London 2001, p. 188; Bacci, "Arte veramente rara, stupenda e miracolosa"..., p. 204. <sup>104</sup>J. Hale, 'Industria del libro e cultura militare a Venezia nel Rinascimento', in *Storia della cultura veneta*, 3/ii, 1980, pp. 243-288.

<sup>105</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 248; the book is available in an anastatic edition: L. Fronsperger, *Von Kayserlichem Kriegsrechten*, Graz 1970.

<sup>106</sup> Beltramini, 'Ancient battles', pp. 344-345; Beltramini, 'Palladio e l'architettura della battaglia...', p. 225.

<sup>107</sup> Woodward, *Map as Prints in the Italian Renaissance...*, p. 4.

<sup>108</sup> Woodward, *Map as Prints in the Italian Renaissance...*, pp. 87-89.

<sup>109</sup> Isermeyer, 'I Commentari di G. Cesare...', p. 267; Hale, 'Andrea Palladio, Polybius and Julius Caesar', pp. 250-251.

<sup>110</sup> K. Brugnolo Meloncelli, *Battista Zelotti*, Milan 1992, pp. 22-23.

<sup>111</sup> Magrini, *Memorie intorno la vita e le opere di Andrea Palladio*, p. 121, note 68.

<sup>112</sup> On the use of etching for geographical prints, see Woodward, *Map as Prints in the Italian Renaissance...*, pp. 30-32.

<sup>113</sup> C. Marciani, 'Un filosofo del Rinascimento editore-libraio: Francesco Patrizio e l'incisore Giovanni Franco di Cherso', in *La Bibliofilia*, lxxii-lxxiii (1970-1971), pp. 177-198; C. Marciani, 'Ancora su Francesco Patrizio e Giovanni Franco', in *La Bibliofilia*, lxxii-lxxiii (1970-1971), pp. 303-313; Beltramini, 'Palladio e l'architettura della battaglia...', pp. 217-229.

<sup>114</sup> Hale, 'Andrea Palladio, Polybius and Julius Caesar', p. 244; Verrier, *Les armes de Minerve...*, p. 97; *De paralleli militari di Francesco Patrizi. Parte ii. Della militia riformata*, Rome 1595, p. 149. The first part of the work had been published the previous year by Luigi Zannetti (Rome 1594) and in the dedicatory letter to Giacomo Boncompagni, Patrizi lists some of the scholars whom he had favoured, including Palladio, who had dedicated his *Commentaries* to Patrizi.

<sup>115</sup> L. Puppi, 'Chiericati, Valerio', in *Dizionario Biografico degli Italiani*, vol. 24 (1980), pp. 693-696.

<sup>116</sup> M. Mallett and J.R. Hale, *The Military Organization of a Renaissance State. Venice c. 1400-1617*, Cambridge 1984; L. Pezzolo, 'L'archibugio e l'aratro. Considerazioni e problemi per una storia delle milizie rurali venete nei secoli xvi e xvii', *Studi Veneziani*, n.s. vii (1983), pp. 59-80; L. Pezzolo, 'Le "arme proprie" in Italia nel Cinque e Seicento: problemi di ricerca', in *Saggi di storia economica. Studi in memoria di Amelio Tagliaferri*, edited by T. Fanfani, Pisa 1998, pp. 55-72.

<sup>117</sup> M. Bandello, *La prima parte de le novelle*, edited by D. Maestri, Alessandria 1992, pp. 365-366.

<sup>118</sup> For Francesco Patrizi's point of view, see Verrier, *Les armes de Minerve...*, pp. 97-98.

<sup>119</sup> *L'architettura di Leonbatista Alberti, tradotta in lingua fiorentina da Cosimo Bartoli*, Francesco de' Franceschi, Venice 1565, *Proemio*, p. 6.

<sup>120</sup> Beltramini-Demo, 'Nuovi documenti e notizie riguardanti Andrea Palladio...', p. 134.

<sup>121</sup> 'Houses in cities are splendid and convenient for the gentleman, since he has to live in them throughout the period required for the administration of the Republic and the management of his own affairs', Palladio, *I Quattro Libri dell'Architettura*, ii, p. 45. I am indebted to Elena Svalduz for having brought this passage to my attention.