Roman Republican Sieges

Roman Republican Sieges
Operations in
Gaul and Hispania

Edited by
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Cover: Reconstruction of the contrevallation defences in the plain, to the west of the *oppidum*. (artist: Jean-Pierre Adam)

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Contributors

Alan Wilkins read Classics at Cambridge University, specialising in ancient history and archaeology. He spent several years on excavations of Roman military and civilian sites, including being a field assistant to Sir Ian Richmond for 17 years. He was always interested in Greek and Roman technology, and after retiring from teaching Classics he turned to the subject of Greek and Roman artillery, following the tragic early death of his friend Eric Marsden. He has attempted to maintain the momentum of Eric's extensive research into the subject. In so doing, he has become the international authority on Roman artillery. His book, *Roman Imperial Artillery. Outranging the Enemies of the Empire* was republished in a revised edition in 2024 by Archaeopress. He is a Fellow of the Society of Antiquaries of London.

Ángel Morillo Cerdán has been Professor of Archaeology at Universidad Complutense de Madrid since 2017 and director of the Department of Prehistory, Ancient History and Archaeology since 2021. His work has embraced both civil and military Hispano-Roman archaeology, particularly Roman pottery, but he is best known for his many research programmes and excavations relating to Roman military archaeology in Hispania. This research encompasses much of the Iberian Peninsula, studying evidence of the Roman army's activities that resulted from the various wide-ranging wars that occurred on the peninsula during the late-Republican and Imperial periods. He has also conducted some more geographically concentrated studies such as the conquest and romanisation of northern Hispania, the battlefield of Pedrosillo and the camps of Léon, Astorga, Herrera de Pisuerga and Cáceres el Viejo. He is an acknowledged authority on the development and form of early Roman camps and military installations in Hispania. He has also been a significant influence on raising awareness of and encouraging much-needed research into the Roman army's presence on the Iberian Peninsula, an aspect largely ignored by scholars prior to about 2010.

Michel Reddé is Professor and Director of Studies emeritus at the École Pratique des Hautes Études, Université Paris Sciences et Lettres. He specialises in the Roman army and Gaul. His various research projects have included numerous excavations, most notably at Alesia, carried out in conjunction with a German team from the Römisch-Germanische Kommission (Frankfurt), the Flavian fortress at Mirebeau (Burgundy), the Julio-Claudian camps at Oedenburg (Alsace), the Khargeh oasis in Egypt and the caravan routes in the eastern Egyptian desert. He has also directed an extensive survey of Rome's campaigns in northern Gaul, funded by the European Research Council.

Mike Dobson is an Honorary Senior Research Fellow in the Department of Classics, Ancient History, Religion and Theology at the University of Exeter. He researches the history and archaeology of the Roman Republican army and its military installations. He is particularly interested in the activities of the Roman Republican army in Hispania, especially their campaigns against Numantia. A related aspect of this research is the German ancient historian and archaeologist Adolf Schulten, and his highly influential work at Numantia in the early twentieth century. More recently, he has also been exploring the environmental impacts of ancient armies – an aspect of the developing research theme of warfare ecology. He is a Fellow of the Society of Antiquaries of London.

Acknowledgements

Terms and Translations

Dimensions and Weights

All non-metric dimensions and weights are shown with their metric equivalents.

Dimensions stated in feet are Roman feet (0.296m). On a few occasions, the feet are Greek/Hellenistic (0.355m) or British/Imperial (0.305m), and this will be made clear.

Dates

All dates are BC/BCE, unless stated otherwise.

Translations

English translations, including the chapters by Michel Reddé and Ángel Morillo Cerdán, are by the editor unless stated otherwise. Alan Wilkins translated the Latin and Greek sources quoted in his chapter.

Abbreviations of classical sources

References to classical literary sources use the *Oxford Classical Dictionary* system of abbreviations – <https://oxfordre.com/classics/page/3993> (accessed January 2025).

Introduction

Mike Dobson

> The terror of our Roman name means that all will know that the exhaustion of a long siege or a bitterly harsh winter cannot dislodge a Roman army from any city it has surrounded. Only victory ends the army's fight, and it will make war more by perseverance than speed. Such perseverance is necessary in every kind of warfare, but especially when conducting sieges, for the fortifications and natural defences of many cities make them impregnable, so only time itself can defeat them through hunger and thirst.[1]

That may have been the Roman theory about conducting sieges, presented by Livy within the long speech of Appius Claudius Crassus in the context of besieging Veii, but as will be seen, Roman Republican sieges did not always work out that way.

There have been numerous publications in recent years about Roman sieges and siegecraft. The books about Roman practices often take an overview of the whole Roman period. Discussions of their sieges and methods can also form chapters in books about Greek and Roman sieges, those generally covering sieges of the ancient world or both that and later periods. The Roman army's methods of taking cities, by relatively quick assault or by lengthier and more-involved siege, and their often brutal way of enacting their victory, are frequently touched upon in one or more chapters in books about the Roman army and its methods of warfare. There has also been a wide range of books and articles about or mentioning specific aspects of Roman sieges or of particular Roman hostilities of this type, which are also sometimes included within discussions of Greek or other siege practices in the ancient world.[2]

This volume differs from previous siege-related publications in that it focusses on sieges and siege-related matters in just Gaul and Hispania during the late-Roman Republic. This period was chosen and not one starting earlier, as it benefits from when classical literary sources start to become more reliable and informative. Since, however, many authors of such sources followed the Hellenistic tradition of 'tragic history', their writing could still be subject to elaboration, exaggeration, transposing material from one event to another and plain invention. Such practices were generally acceptable at the time, but Polybius (*c*. 200–*c*. 118), who is now generally regarded as one of the more reliable classical literary sources for the late Republic, took exception to it as he followed the alternative 'pragmatic' approach to history, as illustrated in his digression on the method of writing history, and appropriately for this book, even singles out sieges:

> historians [...] feel obliged to exaggerate minor things, to embellish and elaborate brief facts and to change rather incidental, unimportant episodes into very significant events and actions, giving accounts of major engagements and pitched battles where in reality there were only ten or so infantry casualties and even fewer cavalry. As for sieges, descriptions of places and so on, it would

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[1] Livy 5.6.8–9.
[2] To cite these in a footnote would produce an impractically long note and also duplicate many of the citations in the chapters that follow. Instead, a sample of the siege-related publications is included within the overall bibliography at the end of this volume.

be difficult to put into words how they manage to extrapolate so much from essentially hardly any actual information. [...] When such writers describe the sieges of Phanote, Coronea, or [...], for example, they believe their audience wants to read about all the strategies and tactics, all the daring actions and all the other features of the sieges, describing at length the capture of Tarentum, the sieges of Corinth, Sardis, [...], adding their own invention. Yet they are so disparaging of me when I simply provide a true and unvarnished account of such things.[3]

The issue of late-Republican sources being adversely affected by questionable accuracy and lack of detail consequently still remains, and with some being more dependable and detailed than others. The sources could also potentially have simply handled sieges in a formulaic, standardised manner, as a literary trope, or be influenced by rhetorical structure and factors.[4] Even eyewitnesses of sieges may have been influenced by such literary influences in their accounts,[5] which could in turn have formed distorted sources for subsequent narratives. This type of 'literary influence' affects not only siege accounts, but battle narratives in general, not just ancient ones but shapes modern ones too – 'the rhetoric of battle history' as John Keegan calls it.[6] Further, an author's objectivity may be coloured by deliberate bias relating to their intended purpose for or intended message behind their text, e.g. the well-known commentaries of Caesar.[7] Added to this, a source may be founded on material which itself may have all or some of the very same failings. Using these supposedly 'more reliable' late-Republican sources consequently has its challenges, as will become apparent in the following chapters.

The late-Republic also has the advantage of there being a significantly increasing amount of archaeological evidence for sieges and general Roman military activity for this period. This is a straightforward reflection of the huge increase over the past twenty years in the amount of research and the number of researchers studying the Republican Roman army. Much of the recent development in knowledge about Roman Republican sieges, and military activity in general, has occurred in France and the Iberian Peninsula, which is why this volume concentrates on these two areas. It also provides an opportunity to present much of the evidence and discussion in English for the first time, with the intention of making such significant developments accessible to a wider readership.

To put this siege discussion into context, the nature of the late-Republican Roman army that undertook these operations and its form of encampments, the art of *castrametation*, are presented in Chapter One by the volume's editor. To add further context, this is followed by Alan Wilkins' chapter on the technical aspects of the artillery used in sieges.

Caesar's siege operations in Gaul were presented by him in a manner that arguably made them appear unusual and inventive, with the underlying intention of emphasising his brilliance as a military commander. Michel Reddé demonstrates in Chapter Three, however, that Hellenistic siege practices and the evidence of the form of the various sieges in Gaul indicate that Caesar's and Rome's siege practices in general, including in Hispania, were based heavily upon significantly older and well-established Hellenistic processes and so Caesar's were consequently essentially 'nothing new'. For this reason also, the chapter about Gaul is presented before that of Hispania, as although this presents the two regions out

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[3] Polyb. 29.12.2–9.
[4] Roth 2006, 49.
[5] Paul 1982, 149; Roth 2006, 49.
[6] Keegan 1976, 36; 27–46.
[7] See Chapter Three.

of chronological order as regards Rome's expansion, the Hellenistic discussion 'sets the scene' of Roman siege practices and means that the examples in both Hispania and Gaul can be viewed in an informed context, with the Hellenistic-based common links and similarities of actions taken by commanders in both regions being apparent. In effect, the Hellenistic discussion naturally continues the previous two chapters which discuss the theory and 'tools of the siege trade' – the army and artillery.

There is a risk that any book about sieges can make the associated fieldworks appear in isolation and 'operation-specific' to particular sieges. Most of the structures were instead simply adaptations or straightforward implementations of the fortifications that lay within the normal repertoire used by the Roman army of this period; in just the same way as the artillery and weaponry presented by Alan Wilkins were used in all types of conflicts. To illustrate this, Ángel Morillo's discussion in Chapter Four about Hispania not only looks at the evidence of Republican sieges there, but also includes the currently known range of military installations in the Iberian Peninsula. This includes the relatively recent burgeoning in the number of known camps from this period, the 'active' fieldworks used on battlefields and the more 'passive' garrison installations, with some of the recently identified forms of these passive installations seeming to us today to have a blurred distinction between military and civil use.

It is also important to consider this range of installations because many of them could at some point have formed vital elements in supply chains to adequately provision sieges, as well as campaign operations in general.[8] For example, it is estimated that an army was unlikely to be able to carry more than two weeks' of grain with it.[9] In short, without installations creating a supply chain, conducting sieges could have been a risky challenge and may easily fail. This occurred, for example, at the Roman siege of Pallantia (Palencia, Spain) in 137,[10] where famine caused casualties amongst both men and animals, and forced the Romans to withdraw, even leaving their sick and wounded behind.[11] A measure taken to try and avoid this is illustrated by towns near to Capua being fortified to act as secure granaries so that troops could have food over winter and the siege of that city could be undertaken in 212–211.[12] Even road-building, as during the Jewish Wars, could prove a necessary preparatory step to ensure transport of siege supplies.[13] Conversely, a siege could be used to defeat an enemy to ensure supply lines that would allow wider campaigning; this was one of the reasons requiring the removal of Vercingetorix in Gaul.[14]

Temporary marching camps could potentially have performed roles in this siege supply chain (and generally for campaign supply chains) once the initial occupying force had moved on, as defensible staging posts and storage depots for supplies or temporary accommodation for support personnel, craftsmen (perhaps with specialist siege-related skills) etc moving up to the siege location. This may account for why the defences of not all camps were demolished, as the camps were envisaged to have further use.[15] The more 'permanent' winter camps could also have performed similar functions, as well as being used for collecting and fabricating equipment, for later dispatch to the front via the network of the former marching camps etc. A complex, tiered supply system can be envisaged, with tactical supplies being

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[8] Donahue and Brice 2023b; Erdkamp 1998; Merrow *et al.* 2020; Roth 1995; Stallibrass and Thomas 2008.
[9] Merrow *et al.* 2020, 61.
[10] See Chapter Four for a discussion of the archaeological evidence for the various sieges at this *oppidum.*
[11] App. *Hisp.* 82.
[12] Livy 25.20.3; Davies 2006, 36.
[13] Davies 2006, 36.
[14] Campbell 2006, 36; Le Bohec 2020; Merrow *et al.* 2020, 108–110.
[15] Merrow *et al.* 2020, 79.

carried and foraged by the 'mobile' army, but tactical-operational and operational supplies, including bulky items, siege equipment, new weapons etc being called up as military circumstances unfolded and transported to where the army was operating, through the network of rear bases and depots.[16] Emerging evidence of a variety of types of installation in north-eastern Spain has led to the proposal of just such a network in this region.[17] Tactical supply bases would have been created very close behind the main, operational army, perhaps in a recently vacated marching camp.[18] This type of base has been proposed for one or more of the camps at Renieblas, which is an ideal location to support nearby assault and siege operations against Numantia (Soria, Spain),[19] and being about 6km to the east of the *oppidum* were safely distant from the immediate fighting (Figures 0.1, 0.2). There is also a recently discovered type of 'military-related' settlement in Spain, which is being suggested as functioning as logistics centres.[20]

Books about sieges have been criticised for being too focussed on the technical, engineering and earthwork elements of siege operations and forget or play down the human and psychology aspects of both the troops involved and the besieged. Josh Levithan makes this point and his publications about especially the motivation and morale of siege troops help redress discussion of these particular aspects.[21] Similarly, Gwyn Davies and Łukasz Różycki help raise awareness of the psychology and symbolism relating to ancient sieges.[22]

Relating to the human aspects of sieges, it was not, as might be expected, only the besieged who suffered, but both the besieged and the besieging forces were likely to have to endure similar physical and mental suffering; there was, for example, always the worry that a besieging army would succumb to as much starvation as the besieged.[23] For both sides, sieges were likely to be drawn-out affairs, with most casualties probably not being from combat but from the severe impact on health caused by such static warfare, with potentially high death rates from sickness (often dysentery) and disease, and very high mortality rates indeed inside a besieged city if epidemics broke out there.[24] This applied to sieges irrespective of whether they were conducted by Romans and of their period, ancient or modern. Examples include: an epidemic killed thousands of the besieged during the Spartan siege of Athens-Piraeus in 87–86;[25] during the American Civil War, besieged residents said the horrors of death and suffering meant they could even 'taste' the siege;[26] and the immensity of death and suffering at Leningrad during the Second World War was horrendous, and the siege would probably now be regarded as a scene of war crimes. In Republican Roman contexts, such 'non-combat suffering' and significant sickness occurred, for example, among the besieging armies at Numantia in 153 and again in 141,[27] Agrigentum (Agrigento, Sicily) in 262[28] and Pallantia (Palencia, Spain) in 136.[29]

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[16] Merrow *et al.* 2020, 60–73.
[17] Carreras and Morais 2010; Ñaco del Hoyo and Principal Ponce 2020; Ñaco del Hoyo *et al.* 2024.
[18] Merrow *et al.* 2020, 62.
[19] Jiménez *et al.* 2018, 123; see Chapter Four.
[20] See Chapter Four.
[21] Levithan 2013; 2020; Roth 2014.
[22] Davies 2001; 2021; Różycki 2018.
[23] Merrow *et al.* 2020, 110.
[24] Donahue 2023a, 290–305; Raaflaub 2014, 38.
[25] Thuc. 2.47–2.54; Raaflaub 2014, 38.
[26] Smith 2015.
[27] App. *Hisp.* 47, 78; see Chapters Four and Five.
[28] Polyb. 1.19; Campbell 2006, 97.
[29] App. *Hisp.* 82–83, Campbell 2006, 122.

Figure 0.1. The site of the Celtiberian city of Numantia on La Muela hill by the modern village of Garray, on the left, viewed from the siege camp of Dehesilla to the south-west of the city. The river Duero runs between the city and the camp, from left to right through the wooded valley (see Figure 4.11). (photo: author, 2016)

Figure 0.2. The location of the camps at Renieblas, on the nearby tree-covered La Gran Atalaya hill to the north-east of the village (see Figures 4.8, 4.12). (photo: author, 2016)

It goes without saying that sieges were unwanted by the cities themselves, but because of all the associated physical and time-demanding effort, combined with the dangers and risks associated with sieges, and with no guarantee of a successful outcome, they were understandably also generally undesired by troops and their commanders.[30] Caesar, though, curiously seemed not to share such feelings of avoidance, as he may have undertaken as many as 17 sieges with himself as commander, and several more by his forces under the command of his legates.[31] One of his considerations for using so many may have been that sieges were a very effective way of demonstrating power,[32] which in Caesar's case would be both his and Rome's.

The potential benefits and rewards of a successful siege could, though, have influenced taking the risks, expending the huge amount of physical effort and having the army tied down in one place for some time. Such effort should never be underestimated, due to a siege's demanding hard labour to construct and maintain fortifications, which would have taken significantly more effort than the relatively easy and quick-win, open-pitched battle. Also compared to a set-piece battle, a siege could result in significantly more casualties for the besieging force if the siege failed.[33] The prospect of such effort, and the associated dangers and potential casualty-rate when a siege was being envisaged could perhaps have been outweighed by the soldiers being swayed by commanders (and for the commander himself) to focus on the potential rewards and rich pickings of plundering the defeated city. The prospect of booty has always been welcomed by soldiers, but it has been claimed that the Romans were obsessed with it throughout the Republic, and the potential for booty and riches could even have been the aims of much of Roman warfare from the commanders downwards.[34] A consequence of this, and frequently mentioned in the sources, was the occurrence of mass violence and slaughter by Roman troops within defeated cities. This was no doubt fuelled by the release of 'blood-lust', revenge and frustration resulting from soldiers having to endure the highly unpleasant siege conditions, which could also have brought about the death of friends, and also the loss of comrades by the residents' hostilities during the siege.

The violence and usual associated widespread destruction and burning at the end of a siege were also used as a deliberate terror-weapon by commanders to encourage other neighbouring settlements not to resist.[35] Caesar, for example, openly justifies such acts for this end when storming Gomphi (Greece), which had unwisely changed allegiance to Pompey, as not only would it provide him with vital supplies, but usefully also 'strike terror into other cities with the example of this one'.[36] Such terror-tactics are also a likely reason behind the evidence of macabre executions of residents and widespread destruction by Pompeian troops after their siege of Valencia.[37] Conversely, a city may be spared indiscriminate violence, if it was felt that its survival had strategic value and the residents had been swayed to see Rome, or a particular side in a civil war, as being able to guarantee their security. Caesar did just this at Metropolis, which opened its gates once it learnt of Gomphi's fate, and sparing it had the highly beneficial result of the area providing him with much-needed wheat supplies.[38]

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[30] Donahue 2023a, 290–292; 296.
[31] Campbell 2019, 255 note 66, sieges listed at 256–263.
[32] Davies 2001, 69–72.
[33] Różycki 2018, 705.
[34] Helm and Roselaar 2023; Oakley 1993, 14; Smith 2006, 296.
[35] García Domínguez 2024, 126–132.
[36] Caes. *BCiv.* 3.80.6.
[37] See Chapter Four.
[38] García Domínguez 2024, 127–128.

Such 'human element' of both the attackers and defenders is touched upon in the chapters about Gaul and Hispania, and is expanded in the final chapter. This last chapter considers sieges within the aspect of 'warfare ecology', i.e. the changes to such basic things as the local smellscape as well as the severe environmental impact caused by a siege and the associated impacts on the health and well-being of both the besieging army and the besieged, and in the case of the latter, both during and after the siege.

Siege Terminology – Latin, Greek and Modern

As mentioned earlier, Michel Reddé's discussion of Hellenistic siegecraft shows that the late-Republican Roman armies modelled their own practices on the already long-established Greek form. There are interesting similarities and differences in the language of the two cultures to refer to sieges and siegeworks. Many of these terms are used in the following chapters, as well as the modern version of one of them to refer to an encircling blockade, so some context is provided here.

Greek and Latin both have the equivalent of the noun 'siege'. Greek has *poliorkia* (πολῐορκία). Latin is more precise, differentiating between a siege that was a blockade, *obsidio*, and a siege that consisted of encamping at a city and taking it by assault, *oppugnatio*.[39] Both Greek and Latin also have verbs to describe the construction of siegeworks around a settlement. Greek uses *periteichízein* (περιτειχίζειν) meaning to surround with a wall or fortifications. Latin has *circumvallare* or *circummunire*, the former meaning to surround with a rampart (*vallum*)[40] and the latter meaning to surround with a wall or fortifications (*munire* relates to *moenia*, meaning literally 'to wall').[41] Livy also uses *circumsedeo* and *circumdare* to give weight to the notion that a city was surrounded.[42] Because of the relationship of the term *agger* to that of *vallum*, the former representing more the collecting of material to construct the latter and not the completed structure itself, as sometimes suggested,[43] it is consequently not surprising that *agger* does not occur in combination with *circum* to form a word to describe the creation of siegeworks surrounding a city; there is a seldom-used verb *circumaggerare* and also *circa aggere*, but not in military contexts.[44]

Although a ditch was usually dug both to provide material for the all-important rampart and to add an extra element of defence, it is perhaps significant that there is no Latin verb meaning to encircle a city with a ditch, i.e. a combination of *circum* and *fossa*, but only verbs referring to encirclement by the upstanding fortifications, i.e. by some form of rampart (*circumvallare*) or the sense of walling around (*circummunire*); there is the verb *circumfodere*, meaning to ditch around, but there are very few examples of its use and none in classical Latin.[45] This absence suggests that for the Romans, the significant feature which represented 'siege' was not ditches, but what was created standing on the ground. This perhaps relates to ditches not always being created in siege contexts, for example if ground conditions prevented them or topography rendered them superfluous or at least partially, whereas material could always by piled up to form a rampart. Hence, ramparts were universal if an encircling blockade was used to defeat a

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[39] Roth 2006, 56.
[40] Discussed in detail in Chapter One.
[41] Lewis and Short 1879, 339, 1176; see *Thesaurus linguae Latinae* (*TLL*) 3.1156, 3.1177 for numerous references for *circumvallare* and *circummunire*: <https://thesaurus.badw.de/en/tll-digital/tll-open-access.html> (accessed November 2024).
[42] Roth 2006, 56, note 74.
[43] See Chapter One.
[44] *TLL* 3.1079, 3.1119.
[45] *TLL* 3.1146.

city, and these features could reliably and conveniently be referred to by classical authors when describing a siege that involved some form of blockade.

Despite the relative commonplace of sieges, and both Greek and Roman readers would readily know exactly what a siege entailed (possibly even from first-hand experience on one or both sides of the operation) only Greek has a specific noun for the siegeworks themselves: *periteichismos* (περιτειχισμός), meaning a surrounding wall or fortification. Roman authors instead used a phrase or a general word for fortifications for such siege installations, often in combination with the name of the place being besieged or generic terms such as 'city', 'that place' etc. Examples include: *fossa et vallo saeptum tenet* (surrounded by a ditch and rampart);[46] *munimentum* (fortification);[47] *munitio* (fortification);[48] *obsidione et oppugnationibus* (by siege and assault);[49] *opera* (works);[50] *operibus ac machinis* (by works and siege devices/engines);[51] *operibus munitionibusque* (by works and fortifications).[52] There are curiously only two occurrences of anything approaching a noun equivalent to the Greek practice, both using *circummunitio* and both in contexts relating to Caesar:

> *Id ne fieri posset obsidione atque oppidi circummunitione fiebat* (It was not possible to do this because of the siege and the encirclement of the city)[53]

> *pares autem ex celeri festinatione circummunitiones iugo derigunt* (our men, however, equally hurried to quickly create encircling investments along the ridge)[54]

Modern terminology for siegeworks has origins in the usage of French military theorists. They used *circonvallation* and *contrevallation* to describe the two lines of siege fortifications commonly used in the fifteenth and sixteenth centuries.[55] During the mid-nineteenth century, Napoléon III added confusion by using *contrevallation* for single lines of siegeworks, and when there were two lines he used *contrevallation* for the inner and *circonvallation* for the outer, as at Alesia. The German ancient historian and archaeologist Adolf Schulten (1870–1960), who rose to fame and became highly influential mainly because of his excavations in the early years of the twentieth century at Numantia (Figures 0.3, 0.4),[56] had (characteristic) strong alternative views and said Napoléon was quite wrong.[57] Schulten concluded from the classical literary sources that the verb *circumvallare* was the most common Latin term used to refer to the process of besieging by an encirclement. Hence, he said the associated noun *circumvallatio* should, as 'circumvallation', be the correct modern term for a single line of siegeworks and when there was a second, outer line, this should be called 'contravallation'.[58] He noted that this had already been so rightly

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[46] Cic. *Att.* 9.12.
[47] Livy 24.36.9.
[48] *BHisp.* 6; Caes. *BGall.* 7.69, 7.72, 7.78, 8.11, 8.37; Sall. *Hist.* 4. 56; Suet. *Iul.* 68.
[49] Caes. *BCiv.* 3.9.5.
[50] *BAlex.* 1; Caes. *BAfr.* 43, 80; Caes. *BGall.* 2.12, 3.12, 8.40, 8.41; Livy 25.22.11, 25.11.10, 31.46.11–14, 34.29.11, 34.34.4, 36.25.4, 36.22.7 (and seemingly Livy's favourite term to use); Nep. *Milt.* 1.7.3–4; see Roth 2006 for a discussion of how Livy narrates sieges.
[51] Livy 36.10.7.
[52] Cic. *Phil.* 13.20.
[53] Caes. *BCiv.* 1.19.5.
[54] *BHisp.* 38.6.
[55] Campbell 2006, 193.
[56] See Chapter Four.
[57] Campbell 2006, 193; Dobson 2008, 46; Schulten 1905, 72–73; 1927, 15–16.
[58] Schulten 1905, 72 note 1; 1927, 15–16; Schulten's German version of the terms is conveniently the same in English, with the minor exception that contravallation begins with 'K' in German.

Figure 0.3. A seated Adolf Schulten at his excavations of the camps at Castillejo, Numantia, during a visit by the family of the local aristocrat Aurelio González de Gregorio and all being amused by the family's dog. One of Schulten's assistants, Harald Hofmann, is second from right. Photograph taken in 1906 or 1907. (photo: Junta de Castilla y León, AHPSo 3.296)

pointed out by the French military engineer Albert de Rochas d'Aiglun;[59] about 15 years after Napoléon's publications. The logic behind such usage and Schulten's significant academic influence resulted in his view being adopted internationally by scholars. Although Napoléon's use of the terminology is counter-intuitive, it is traditionally adhered to for Alesia, but usually only for that site. Gwyn Davis is an exception, defining the words in the same way as Napoléon and using them thus throughout his relatively recent book on Roman siegeworks;[60] he corrects this (though not stated as such) in a subsequent publication, but a few sentences later adopts the Napoléonic (Anglicized) usage of contravallation for Alesia, without explanation and so arguably misleads the reader.[61]

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[59] Rochas d'Aiglun 1881, 6: '*Dans un siège, les assiégeants isolent la place de l'extérieur à l'aide de* lignes de circonvallation; *ils se défendent eux-mêmes contre les entreprises d'une armée venant au secours de la place par des* lignes de contrevallation'. Schulten 1905, 72, note 1.
[60] Davies 2006, 63; also noted by Campbell in his review of Davies (Campbell 2007, note 6).
[61] Davies 2009, 703.

Figure 0.4. Schulten's excavations at the camp of Peña Redonda, Numantia, looking towards the hill of Numantia itself, where the modern siege memorials and the Spanish excavation commission's hut to their right can be seen in the centre of the dark skyline of the hill. This and the previous illustration show the more unusual excavation practice of Schulten, of uncovering most of a building rather than just chasing its walls (see Figure 1.9). The identity of the seated man is uncertain. (photo: Schulten 1927, Tafel 10.2)

Schulten also made a useful analogy to explain the classical usage of *bracchium* (arm) to refer to lengths of siegeworks.[62] For him, the siege camps placed around a besieged city were the heads and the *bracchia*, were the out-stretched arms of the enveloping siege curtain.[63] They could equally be envisaged as arms extending across the ground to provide protective field fortifications prior to an engagement.[64]

Philo

Alan Wilkins and Michel Reddé both refer in their chapters to an ancient treatise written by Philo. This author, known as *Philo* in Latin and *Philon* (Φίλων) in Greek, is usually referred to as *Philo of Byzantium*, but

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[62] *BHisp.* 6; *BAfr.* 56 in the context of preparing to storm a city; Livy 38.5.8.
[63] Schulten 1927, 16.
[64] *BAfr.* 38, 49, 51; *BHisp.* 5; and see discussion of Pedrosillo battle site, Chapter Four.

is also known as *Philo Mechanicus* (Philo the Engineer). Since he is mentioned in two chapters, and he may not be as well-known as other classical authors, some context is provided here.

Almost nothing is known about Philo's life, but it is generally agreed that he was active in Alexandria in the second half of the third century.[65] His importance to siege studies is that he wrote a Greek treatise about engineering and mechanics, regarded as being called *Mechanike Syntaxis* (Μηχανικὴ Σύνταξις). It originally consisted of nine books. Most of these no longer survive, but several appropriate to sieges do, though in varied forms of completeness:[66]

> *Belopoiika* (Βελοποιικά) – artillery

> *Paraskeuastika* (Παρασκευαστικά) – fortifying cities against sieges, siege-preparations

> *Poliorketika* (Πολιορκητικά) – conducting sieges, siege-craft

Numerous editions and translations have been published.[67] The versions used in this volume are those by: Yvon Garlan (*Poliorketika* – with French translation);[68] Eric Marsden (*Belopoiika* – with English translation);[69] and David Whitehead (*Paraskeuastika* and *Poliorketika* – with English translation).[70]

'Hyginus'

A frequently used classical literary source for Roman camps is often referred to as 'Hyginus' or 'Pseudo-Hyginus'. The title page and beginning of the text are missing from the earliest surviving, Arcerianus manuscript, so both the work's title and author are lacking.[71] The attribution to an author with the name of Hyginus largely stems from a scribe's addition to his copy of the early manuscript, which seeks to link the text to Hyginus Gromaticus.[72] Two authors with the name of Hyginus are known, but textural comparisons between their works and this military tract show that it cannot be attributed to either of them.[73] Its authorship remains unknown.[74] It would consequently be misleading to continue to refer to the work by any reference to 'Hyginus'.

The work's commonly used title of *De Munitionibus Castrorum* (Fortifying Camps), such as in the 'classic' 1887 edition of Alfred von Domaszewski and subsequently by others,[75] was created by a sixteenth century copyist.[76] Since, as Grillone points out,[77] the text is more about measuring out a camp than fortifying one, Grillone's title of *De Metatione Castrorum* will be used for the frequent mentions of this text in this volume.

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[65] Marsden 1971, 6–9; Schiefsky 2015, 616; Whitehead 2016, 21–22.
[66] Garlan 1974, 281–285; Marsden 1971, 156; Whitehead 2016, 20–21.
[67] Conveniently listed in Marsden 1971, 156 note 1 and Whitehead 2016, 15–16.
[68] Garlan 1974, with an extensive siege and fortification bibliography, xvii–xxii.
[69] Marsden 1971.
[70] Whitehead 2016, with thorough bibliography, 439–445.
[71] Campbell 2018, 1–2; Lenoir 1979, vii–xxiii.
[72] Lenoir 1979, vii.
[73] Lenoir 1979, vii–viii.
[74] Campbell 2018, 1; Frere 1980, note 2; Lenoir 1979, vii–viii.
[75] Campbell 2018; Gilliver 1993b; Lenoir 1979; von Domaszewski 1887.
[76] Lenoir 1979, viii.
[77] Grillone 1977, viii–ix.