

WHICH WAY TO THE BATHS? THE INTEGRATION AND URBAN CONTEXTS OF ROMAN BATHS

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Lay Abstract

This dissertation examines the placement of Roman-style baths in provincial communities to investigate the factors that influenced the integration of these bathing facilities into pre-established urban landscapes. A total of one hundred settlements across eleven provinces are studied in order to identify the factors that influenced the placement and integration of these non-local building types and how these factors varied between regions. In addition, focused case studies on Roman-style baths in Britain and Greece are used to explore how pre-existing bathing culture impacted the adoption of Roman public baths. This dissertation represents the first transregional study of the placement of Roman-style baths and contributes to a growing trend of scholarship that highlights the agency of local communities in the adoption of the Roman cultural practice of public bathing.

Abstract

This dissertation interrogates the agency of provincial communities in the Roman Empire to shape their urban environments though the integration of non-local building types, specifically Roman-style baths. By applying an urban-studies approach to the examination of these technologically complex and socially significant building types, this study intervenes in the traditional study of Roman baths, which have primarily studied these facilities in isolation or focused exclusively on their design and layout. Instead, this dissertation explores the placement of Roman-style baths in provincial settlements, the urban contexts of their integration, and the influence that pre-existing baths and bathing culture had on the construction of Roman-style baths.

Recognizing that provincial communities made deliberate choices regarding the location of Roman-style baths in their pre-existing urban framework, this dissertation explores the factors that helped dictate the placement of these bathing facilities. Rather than focus on a single region of the Roman world, this dissertation studies the placement of baths in one hundred settlements across eleven provinces that stretch from the Britannia in the west and Asia in the East. This transregional study presents a balance between exploring empire-wide trends and local practices concerning the urban context of Roman baths, as well as the relationship between the two and reveals the widespread preference for placing Roman baths in high-traffic locations, where access and visibility would be greatest. This dissertation ends with a focused examination of baths in Roman Greece and Britain to investigate how pre-existing bathing culture influenced the integration of Roman-style baths in these regions and how the preferred high-traffic locations

were adapted by the local communities to accommodate these facilities. These case studies highlight the preference for these provincial communities to construct their baths afresh in new locations that best suited local needs and expectations.

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Introduction

Bathing is often a mundane, quotidian task necessary for personal hygiene, but it is one which is regularly transformed by communities, both ancient and modern, into a social activity imbued with cultural meaning. Urbanized groups across the world and throughout history have practiced communal, public bathing in distinct buildings, which are recognized as carrying particular cultural and conceptual values tied to their layouts and the practices that took place within. Take for example, the multi-functional but traditionally medicinal *jjimjilbang* of South Korea, the social and therapeutic Islamic and contemporary *hammams* of Turkey, and the luxuriously adorned and multifaceted baths of the Roman world. In the case of Roman baths, the near-universal appearance and popularity of these facilities in the provinces of the Roman Empire has sometimes been seen as a marker of "Roman" culture, and their construction in newly conquered regions as a sign of acculturative "Romanization." This view, however, ignores the regional variation in the construction and design of Roman baths in the provinces, denies the material agency of the baths themselves, and assumes a passive acceptance of these facilities by the local peoples.

This dissertation takes an urban-studies approach to the archaeology of Roman baths and bathing, joining a growing number of bath studies that challenge the dominant paradigm surrounding the reception and impact of this "Roman" architectural form and social practice in

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¹ Pearson 2020.

the provinces.² More specifically, I examine these facilities in their full urban context, a shift away from previous bath studies that tended to focus on the identification, dating, and architectural typification of these structures (e.g., *thermae* vs. *balneae*; row types vs. hall types vs. axial types, etc.).³ While this earlier scholarship was transformative for the study of baths, rarely did it explore how these facilities related to surrounding structures or the influences affecting the placement of baths in the urban environment. Roman baths were rarely built in isolation, and local inhabitants made deliberate choices when integrating baths into their preestablished urban framework. Moreover, for many baths, we do not know what was underneath, that is, what pre-existing structures were removed to make room for the new baths and how this changed the urban landscape. This gap in our knowledge obscures the agency of the local community in reshaping their urban framework (through the expropriation of land, for example) and by extension, their daily lives.

This project seeks to fill this gap, by exploring how the adoption, adaption, and integration of Roman bath buildings by provincial inhabitants changed the urban fabric of their communities in localized ways. This transregional study analyzes the urban context of Roman baths from across a large section of the Roman Empire (Italia, Tarraconensis, Lusitania, Baetica, and Britannia in the Roman West as well as Achaea, Macedonia, Epirus, Crete, Asia, and Lycia and Pamphylia in the Roman East). In doing so, it aims to understand how settlement history and culture affected the ways in which local communities integrated new architectural forms into the urban fabric of their cities and towns. Approaching provincial Roman baths in this way not only allows us to move beyond such monolithic views of "Roman baths and bathing," but to restore

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² See DeLaine 1988; Fagan 2001; 2002; Maréchal 2012; and most recently Harvey 2020 for other new approaches to the study of Roman baths.

³ See Maréchal 2012 for a summary of these previous approaches to Roman baths and bathing, but also Farrington 1995; Nielsen 1993a and b; Yegül 1992 and Krencker et al. 1929.

agency to local communities and recognize the changes to social practice and to the experience of urban space driven by the Roman baths.

There are three main questions that this dissertation seeks to answer. First, were there preferred urban locations for bath buildings and were these preferences regional or empire wide? Second, how were Roman baths integrated into pre-existing urban frameworks and what were the circumstances surrounding the insertion of these new architectural forms? Thirdly, in areas where a public bathing culture was already established, what did the integration of the new, Roman baths mean for the pre-existing public baths and bathing culture? I answer these questions in four chapters.

In her 2013 book chapter "Urban Context of Greek Public Baths," Monika Trümper presented the results of a survey of the intra- and extramural locations of seventy-five Greek public baths from across the Greek world. Previously, no similar project has been attempted for Roman public baths on a regional scale. In hopes of addressing this gap, the first two chapters of this dissertation present the results of a survey of the urban locations of public bathing institutions in 92 towns and cities across the Roman Empire. The aim of these two chapters is four-fold: 1) to identify the preferred urban locations for Roman public baths (dating between 200 BCE to 400 CE)⁵ and the frequency with which these locations were chosen; 2) to establish whether the preferences showed variation because of regionality, previous pre-existing settlement history, or status, 3) to determine how much practical considerations are reflected in bath location choice and 4) reveal whether those responsible for building and locating the Roman

⁴ Trümper defines public baths as "publicly accessible, independent buildings that are not part of a larger ensemble [...] and provide bathing facilities for more than one person" (Trümper 2013b: 35).

⁵ This excludes any baths which fall rurally located baths (e.g., those at waystations), military baths, those at extraurban sanctuaries, or spas like Baiae.

baths share a preference for the same high-traffic locations that Trümper identified for the earlier Greek baths. Chapter One covers Roman baths in the Western Empire: Italia (Italy), Tarraconensis, Lusitania, Baetica (Spain and Portugal), as well as Britannia (Britain), while Chapter Two covers parts of the eastern empire: Achaea, Macedonia, Epirus, and Crete (Greece and southern Albania), and Asia and Lycia and Pamphylia (western Turkey). These areas were chosen as case studies to provide a manageable yet transregional overview of bath placement and to investigate how different factors affected the construction of these facilities: Italy, as the origin of Roman bathhouses, Greece and Turkey where Greek urbanization and public bathing already had a firm hold, and Spain/Portugal and Britain in the West where public warm-water bathing was not practiced to the same degree as in the Hellenized East before the introduction of military baths. The towns and cities chosen for study have a wide range of settlement history, from ex novo Roman colonia like Italica and Valencia in Spain to those with significant pre-Roman urban settlement like most of the cities survey from Greece and Turkey. This variety in settlement history was a deliberate choice to investigate if and how it affected bath placement and how the baths were integrated into pre-existing urban landscapes. The survey is not, however, comprehensive: only those public baths for which there is sufficient information published about surrounding urban architecture were included in this study.

Building from these survey results, the third and fourth chapters seek to determine how Roman baths were physically integrated into provincial urban space; that is, how the favoured bath locations identified in the first two chapters were obtained and adapted by the local communities to accommodate the construction of these often-monumental bathing structures.

⁶ Because of space constraints, the northern provinces, the eastern provinces (aside from Asia and Lycia and Pamphylia), and North Africa were not included in the survey.

Specifically, these chapters investigate how Roman public baths were integrated into cities and towns in Greece (Chapter Three) and Roman Britain (Chapter Four), each of which had a pre-existing public bathing culture and permanent public bathing establishments: Greek for the former and Roman military for the latter. Each chapter asks the questions: what were the circumstances surrounding the integration of public, Roman-style baths? Were the pre-existing baths converted into the new Roman ones or did those responsible for erecting the Roman-style baths start afresh and look to new locations?

It is challenging to find detailed data on baths in their full urban context; rarely do published excavation materials reveal what lay beneath the baths or how their relationship to the surrounding architecture and urban topography changed over time. Therefore, Greece and Britain were chosen as the case studies for the third and fourth chapters as the type of information needed about the construction (and destruction) surrounding the bath-building process was more readily available for baths excavated in these regions.

Before turning to the results of the survey of the urban locations of public baths, several preliminary questions must be answered about these baths and the conditions for their inclusion in the surveys in the first two chapters. These include: What constitutes a "public" bath in the Roman world and what were the criteria used to distinguish public from private baths in the archaeological record and for inclusion in the survey? And finally, how was the location of a public bath chosen (and who was responsible) and by extension what were the considerations and concerns that influenced bath placement?

Public vs Private Baths

Greek baths, although publicly accessibly, appear to have been largely privately owned. This prevalence of private ownership is likely because, during the Classical and Hellenistic periods (unlike theatres, gymnasia, and *bouleteria*), the Greek bathhouse was not part of a *poleis*' standard building program. Thus, it largely fell to private individuals to finance, locate, and erect the publicly accessible bathing facilities. By the Roman Imperial period, however, this had largely changed, and public baths, along with the forum, Roman-style temples, theatres, and to a lesser extent circuses and amphitheatres, were now part of the infrastructure of a Roman city.

Most broadly, Roman baths have been defined in modern scholarship as "public" when they were open to all,⁸ and used indiscriminately by a city's populace and visitors, not just a specific subset or paying clientele.⁹ This fairly broad definition can include both *publica* baths (those owned by the Roman state or a city), and privately owned *meritoria* baths.¹⁰

In his 1999 paper "Interpreting the evidence: did slaves bathe at the baths," Garrett Fagan estimated that empire-wide, the number of known "public" (both *publica* and *meritoria*) baths neared one thousand.¹¹ This number has surely grown in the intervening years and is too vast a quantity to be covered in this survey. Therefore, it was the *publica* (or as DeLaine has termed

⁷ Trümper 2013b: 36. For example, according to an honorary decree erected in his honour, Uliades from Mylasa was responsible for identifying a suitable location for the city's new baths (Blümel 1987/1988: inscription 101, from Trümper 2013b: n. 12 and 13).

⁸ There is some question about who should be included in the category of "all." Garrett Fagan has demonstrated that while some baths did admit slaves as customers, it is unclear from the literary and epigraphic sources how prevalent this practice was in the Roman world (Fagan 2002; 1999).

⁹ Fagan (2001: 5); DeLaine (1999a: 67-68); Nielsen (1993a: 3, 119) and Yegül (1992: 42) have all defined Roman public baths in this way. Monika Trümper similarly designates Greek public baths as those which were "publicly accessible, independent buildings...for more than one person," even if privately owned (2013b: 35, 36).

¹⁰ Fagan 2002: 193; Nielsen 1993a: 3, 119-120, 122-125.

¹¹ Fagan 1999. At Ostia alone, for example, at least 30 small baths were incorporated into the dense fabric of the city and Rome is thought to have had over 800 "non imperial" baths (*balnea*) in the city alone, though not all are extant (Fagan 2002: 357). See also Fragments 25 and 33 of the Forma Urbis for the appearance of small *balnea* in Rome (Yegül 1992: 66).

them, "public-sector") baths, 12 (i.e., those which were publicly owned and accessible) 13 on which I chose to focus for my survey, excluding all domestic baths as well as the privately owned smaller *meritoria* Roman baths that were intended for a specific clientele, whether it be for members of *collegia*, or a particular paying subset of the population. This decision was made because, although *meritoria* baths could at times be used by the public, ¹⁴ they were not part of a city's official building program in the same way as the publicly owned baths. Therefore, the placement of these smaller, private baths in a city or town was presumably less likely dictated by any official preference or pattern, but by the availability of space (for example, a plot of land which was already owned by the person who commissioned it)¹⁵ and by their owner's desire for customers. Regrettably, the secure identification of such "public sector" baths for inclusion in my survey proved difficult, largely because the distinction between public and private ownership is not always clear in the archaeological or epigraphic record. Yegül has asserted that the thermae, which he and Nielsen define as larger bath complexes occupying one or more insulae and having a symmetrical plan and palaestra (typified by the imperial thermae of Rome), were "almost without exception" owned by the city or state. Balnea, smaller baths, typically without a palaestra, asymmetrical in plan, and occupying only part of an *insula*, meanwhile were privately owned. 16 This association of thermae with the publica or "public sector" baths and balnea with the *meritoria* or "private sector" ones provides a helpful tool for identifying public ownership;

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¹² DeLaine 1999a: 67-68.

¹³ Although not necessarily entirely publicly funded. There are some examples of privately funded public baths including those at Bull Regia in Tunisia where a member of the consular Memmi family, Julia Memmia, funded the baths (Yegül 1992: 44) and the Forum baths at Pompeii, possibly funded by M. Gavius Maximus (Meiggs 1973: 415).

¹⁴ Nielsen 1993a: 1.

¹⁵ For example, Cornelius Fronto probably already had a plot available for his baths that he wished to build in Rome (Aul. Gell. *N.A.* 19.10-15; Nielsen 1993a: 121).

¹⁶ Yegül 1992: 3, 43. This division of the *thermae* and *balnea* by public and private ownership is echoed by Nielsen 1993a: 3, 120. Both *thermae* and *balnea* could be publicly accessible.

however, there are some issues that must be considered. There are exceptions to his observation that *thermae* are publicly and *balnea* privately owned. For example, the public baths at Wroxeter, Britain appear to have had a basilica hall rather than an open-air palaestra. Also complicating identification is the fact that many baths have not been fully excavated or published and so identifying them as *thermae* or *balnea* based on the presence or absence of a palaestra or symmetrical layout is not possible.

Inscriptions and literary sources may be helpful in such instances; however, caution is once again necessary as there does not appear to have been any set rules for the use of the terms *thermae* and *balnea* in antiquity, with some apparent confusion evident in both the ancient literary and epigraphic sources.¹⁷ For example, while Dio Cassius calls the Baths of Agrippa in Rome both *thermae* and *balaneion*, Martial consistently refers to small baths as *balneum* and *balnea* (plural), and the larger ones as *thermae*.¹⁸ In a letter to Trajan, Pliny speaks about a *balineum* which the people of Prusa (Bursa, Turkey) wished to restore.¹⁹ In his reply, Trajan mentions that public finances may be used, but that no extra taxes should be levied.²⁰ In both letters, despite the use of the term *balineum* to describe the baths of Prusa, Pliny's involvement and the mentioned of public finances by the emperor seems to suggest public ownership of these baths. There is also an issue of funding: while there is evidence of privately funded public-sector baths.²¹ some dedicated bath buildings appear in the legal sources to have been leased to the

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¹⁷ Yegül 1992: 43.

¹⁸ Dio Cassius *Ρωμαϊκὴ Τστορία* 54.29.4; 66.25, 1; Martial *Epigrammata* 1.23; 3.25; 5,70; 11,47; 3.25. Varro, when discussing the use of the singular and plural forms of *balneum*, suggests that the plural, *balneae*, was used for public baths, while the singular form, *balneum*, was for private (*De Lingua Latina* 9.68 from Yegül 1992: 432, n. 96). ¹⁹ Pliny *Epistulae* 10.23 from Yegül 1992: 43; Yegül 1992: 431, n. 95. In some inscriptions (e.g., *CIL* X, 36; XI, 1421; XV, 2112) the public baths are called *balineae publicae* (Yegül 1992: 431 (n. 95), 432 (n. 96). There does appear to have been some sort of distinction: an inscription from the Severan period, from Lanuvium records that the city "buil[t] *thermae* to replace the *balneae* which were very old and had gone out of use" (*CIL* X, 2102 = *ILS* 5685 from Yegül 1992: 43).

²⁰ Pliny *Epistulae* 10.24.

²¹ See footnote 13.

city's *aediles* indicating that they technically were privately rather than publicly owned and erected even if controlled by the city officials.²²

With these issues in mind, aside from the bath's layout, a combination of four other criteria was employed when identifying baths for inclusion in the survey: the bath's identification as public in the published secondary sources, the bath's spatial associations, and size.²³ Balnaea were usually "small establishments, privately owned and fitting into available city lots as best they could (often sharing walls with other structures)."24 While this is certainly often true, larger public-sector baths also often shared their *insula* with other buildings, notably renting out their street frontages to tabernae and other types of shops. Therefore, only baths within a *mansio*, or that were a connected to an identified clubhouse, apartment complex, or other domestic scape, or had a similar special connections to private or religious establishments have been excluded from the study. Finally, the baths identified by Nielsen as thermae have an average size of around 1000 m². Therefore, those baths around this size or larger (where no other criteria suggest private ownership and use) were assumed to have been public and have been included.²⁵ Not all of these criteria were available for every bathing facility and thus there are likely some of the privately owned/meritoria baths included in the survey and some publica baths missing.

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²² Laurence 2006: 140.

²³ Inscriptions, while theoretically useful in trying to identify ownership, did not prove to be very effective tool when trying to identify baths as private or public. Few of the baths used in this survey have accompanying inscriptions and those that are available are often quite fragmentary and do not provide clear information about the relationship between bath ownership, patronage, and clientele. See footnote 13 for examples of inscriptions that may tie public baths to private funding.

²⁴ Yegül 1992: 43. Such baths were often found in densely populated or commercial districts occupied by warehouses and workshops (Yegül 1992: 66).

²⁵ There are, however, some exceptions. For example, some of the baths identified in Roman Britain as public are smaller than 1000m² (e.g., the baths at Silchester are 690 sq.m. – Nielsen 1993b: 19) as these towns' population levels may not have required larger baths.

How was the location of a public bath chosen and who was responsible?

As previously mentioned, the erection of Roman baths was part of the civic planning of a Roman town or city. It is important to note, however, that Roman civic planning does not altogether accord with our modern conception where city planners not only lay out the street patterns, but also organize the use of space within the town. ²⁶ Once an architect and his urban surveyors had decided on the urban layout of the new or remodeled Roman city, the public buildings, including baths, were then inserted piecemeal into this plan, often over a significant period of time.²⁷ There are few exceptions of a street grid being changed to accommodate the erection of a building, ²⁸ public or private, and while there has been some discussion within the scholarship of so-called "reserved plots" for public buildings, this is usually in the context of Greek cities or Roman fortress layout.²⁹ There is still little solid evidence to suggest that specific areas were left open in anticipation of the erection of a specific type of public building in a Roman context.³⁰ Roman town planners, as Laurence has noted, were concerned with the city's street layout rather than zoning or the exact placement of the civic institutions, such as the baths.³¹ Who then was responsible? Likely the same individuals charged with securing the funds necessary for the construction of the public baths, the local magistrate(s)³² or council (ordo).³³

²⁶ Laurence 2006: 12; Laurence 2014: 26-27.

²⁷ Take for example Wroxeter, where it took the town about 30 years to finish building its public baths (de la Bédoyère 2013: 145; White and Barker 1998: 89; Barker et al. 1997: 18, 50; Webster 1993: 51) or Thessaloniki where clear evidence of large-scale construction activity of Roman building types, including baths, only comes from the Antonine and Severan periods (Vitti 1996: 61-62).

²⁸ The Forum Baths (I.XII.6) at Ostia are one such exception (Mar 1991: 102; Stöger 2011: 13).

²⁹ The possibility of reserved plots has been raised for the fort at Caerleon, where an armourer's shop was levelled to make way for the stone baths (Boon 1972: 30).

³⁰ There was, however, an initial delimitation of public and private land within the city (Mar et al. 2012: 85).

³¹ Laurence 1994: 12.

³² Trümper 2013b: 36; Fagan 2002: 139-140; Nielsen 1993a: 1; Duncan-Jones 1985; 1974.

³³ The *ordo decurionum* (Bidwell 1980: 56). This would have included auctioning out contracts to *redemptores* for the design and building of the baths (Gutiérrez Garcia and Vinci 2018: 272).

Funding the construction of baths

The building of baths could only begin once the *ordo decurionum* had secured funding, whether public or private.³⁴ Beginning with Nero, baths could be funded by the emperor, who might provide money from his personal *fiscus* for a bath, which then often bore his name;³⁵ this was common practice in Rome, and also occasionally seen in the provinces.³⁶ Inscriptions indicate, however, that it was much more common for the cities and towns in Italy and the provinces to fund their own public baths,³⁷ although they could be periodically aided by the financial contributions of private individuals.³⁸ For example, at Bull Regia in Tunisia, a member of the consular Memmi family, Julia Memmia, donated private funds for the construction of a public bathing complex in the town.³⁹ Similarly, at Ostia, the Forum Baths were a gift of a

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³⁴ Mar et al. 2012: 85.

³⁵ Nielsen 1993a: 119; Yegül 1992: 43.

³⁶ At Rome: The Baths of Nero, Titus, Trajan, Caracalla, Diocletian and Constantine. Italy: Bononia (Augustus and Gaius Caligula? – CIL XI.720 = ILS 5674 = Fagan 2002, n. 1); Cadyanda (built with the money Vespasian "saved for the city" ICR III n. 507); Cyrene (Trajan – AE 1960.198 = Fagan 2002, n. 4, and possibly later Hadrian – AE1928.2 = Fagan 2002, n. 5). Ostia, The Baths of Neptune (Antoninus Pius – CIL XIV.98 = ILS 334 = Fagan 2002, n. 6); Tarquinii (Antoninus Pius – CIL XI.3363 = Fagan 2002, n. 7); Spoletium (Constantine and Julian – CIL XI.4781 = ILS 739 = Fagan 2002, n. 16); Regium Julium (Valens, Gratian, and Valentinian – AE 1913.227 = Fagan 2002, n. 18). Gaul: Narbo (Antoninus Pius – CIL XII.4342 = ILS 5685 = Fagan 2002, n. 8); Forum Claudii Ceutronum Axima (M. Aurelius and L. Verus – CIL XII.107 = ILS 5868 = Fagan 2002, n. 9); Remi (Constantine – CIL XIII.3255 = ILS 703 = Fagan 2002, n. 15). North Africa: Lepcis Magna, The Baths of Severus. Asia Minor: Sardis, the large bath-gymnasium complex (built using relief funds given by Tiberius after the earthquake of 17 CE for the purpose - Tacitus Annales 2.47); Nicomedia (Diocletian - CIL III.324 = ILS 613). There are some examples of baths dedicated in an emperor's honour, but not actually a benefaction of the state (e.g., the Antonine Baths at Carthage were paid for by the city) (Nielsen 1993a: 119). Very occasionally, Roman state officials (praefects praetorio, governors, legatus Augusti, and curatores rei publica) were responsible for the construction of baths in their province of service, although only two inscriptions record the official as responsible for the initial construction (M. Gavius Maximus, praefectus praetorio at Ostia – AE 22 1984.150 = Cicerchia and Marinucci 1992 11.216-19, n. C 106 = Fagan 2002, no 22) and M. Nonius Arrius Mucianus, consul, curator and patronus rei publicae at Verona -CIL V.3342 = ILS 1148 = Fagan 2002, n. 23). This rarity is perhaps the result of the brevity of their stay and lack of local connections (Fagan 2002: 140).

³⁷ Duncan-Jones 1974; 1985; Fagan 2002: 142.

³⁸ Yegül 1992: 43-44, esp. n. 101. This was the norm in Republican Rome, where before the Baths of Agrippa, bath building was strictly a private endeavour (Fagan 2002: 107). As Fagan notes, these private individuals were often also local magistrates, and often the only way of differentiating between the two in the inscriptions is the presence or absence of offices/honorary titles, or some mention of the source of the funds (*ob honorem*, *pro honore*, or *summa honorariae* vs. *sua pecunia*) (Fagan 2002: 142, 167). However, even this is not entirely fool proof as there seems to have been some expectation of the use of the official's own funds (*munera*) to benefit the community while holding office (Fagan 2002: 167).

³⁹ There is a statue base dedicated to the consul found inside the staircase entrance of the baths (Yegül 1992: 44).

private donor.⁴⁰ Although prestige and status were always a common motive for private bath benefaction,⁴¹ lack of public funds for such constructions may also have occasionally been a factor.⁴² Indeed, this seems to have been the case at Thugga, where Roman civic institutions (and the associated *summa honoraria*/town funds) were largely lacking until the third century CE, and private benefactions were overwhelmingly responsible for the erection of public buildings, possibly including the city's second set of baths, the so-called "Licinian Baths," built to celebrate Thugga's new colonial status granted by Gallienus.⁴³ Pliny, in one of his letters to Trajan concerning the baths of Prusa, speaks of collecting money from private individuals to finance the erect a new set of baths to replace some that had become dilapidated.⁴⁴

Where public funds were available for the erection of a public bath, they were commonly taken by a local magistrate or council (*ordo*) from the city *aerarium*, which was financed through taxes (trade, money changing, sales, etc.), shop rents, and land or urban property revenue, ⁴⁵ or from the *summa honoraria* of public officials. ⁴⁶ Duncan-Jones has stressed the importance of the *summa honoraria*, arguing that in some cases they was the most important single source of public building funds. ⁴⁷ This was certainly the case at Claudiopolis, in the province of Bithynia-Pontus, where Pliny the Younger mentions in a letter to Trajan that *summa honoraria* funds were

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⁴⁰ A partial inscription from a fourth century CE reconstruction includes *-mis Gavi Ma-* which Meiggs (1973: 415) suggests (expanded to '*thermis Gavi Maximi*') may give the Bath's original name and benefactor, one M. Gavius Maximus, the praetorian perfect of Antoninus Pius. See also Bloch 1953: 415-416.

⁴¹ See Fagan 2002: 165-170 for full discussion of the motivations of local benefactors.

⁴² Fagan 2002: 170.

⁴³ It is unknown who paid for the erection of the baths (Duncan-Jones 1985: 31).

⁴⁴ Pliny *Epistulae* 10.23.

⁴⁵ Down 1988: 41; Duncan-Jones 1985: 29; Nielsen 1993a: 120. See Pliny *Epistulae* 10.24 and Historia Augusta *Vita Severi Alexandi* 24.6 for the use of taxes to fund baths.

⁴⁶ Nielsen 1993a: 120, esp. n. 6. The *summa honoraria* was a financial contribution made by civic magistrates upon entering office in the cities of the Roman Empire. Flamen paid 10 000 sesterces, while a *duoviri* paid 2 000 (Duncan-Jones 1985: 29).

⁴⁷ Duncan-Jones 1985: 29.

used to build new town baths, ⁴⁸ and at Lanuvium, Italy, where the public baths were renewed using the *summa honoraria*, levied from the priesthood. ⁴⁹

Location criteria

What criteria (if any) did the magistrates or council follow when choosing the location of a bath? Both Janet DeLaine and Monika Trümper have addressed the obstacles encountered when trying to discern the reasons behind bath placement in a city or town. Despite these difficulties many scholars, including Trümper herself, have suggested possible criteria for choosing bath locations. Fikret Yegül writes that "few rules governed the distribution of baths in the cities" and that their placement seems to have been determined "by pragmatic concerns rather than theoretical principles," like those discussed by Vitruvius. Trümper outlines more clearly what some of these pragmatic concerns must have been for those tasked with building baths, although her focus is on Greek baths in the Greek world. Presumably, however, Roman public officials were also faced with many of these same practical considerations. The main considerations highlighted by Trümper were: 22

a) Visibility and ease of access and the desire for paying customers. Although perhaps not as motivated by profit as private bath owners, not all public-sector baths were provided with endowments from emperors or other benefactors to cover maintenance and running costs.

Therefore, attracting bathers must still have been a concern for many and may lead them to choose high-traffic areas, a possibility that will be evaluated in the first and second chapters of this study.

⁴⁸ Pliny *Epistulae* 10.39.

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⁴⁹ Duncan-Jones 1985: 29; *ILS* 5686.

⁵⁰ See DeLaine 1999a and 1999b; Trümper 2013b: 37, 44.

⁵¹ Yegül 1992: 4; Vitruvius *De architectura* 10.5.

⁵² Trümper 2013b: 35.

b) Connections to specific buildings. The types of buildings and spaces to which baths tended to be spatial connected and the frequency with which they are spatial connected will also be considered in Chapters One and Two.

c) The access to fuel and water. The importance of exploiting "natural hydrography" in the choice bath site has been highlighted by Tim Williams, who goes so far as to suggest that "an adequate supply of water was more important in the choice of site than its location within a town."⁵³ The degree to which this is reflected in the location of baths in cities with natural water sources will also be evaluated in the first and second chapters of this dissertation.

I would add to this list two more considerations. First, the availability of space. Once the money for a bath had been procured, public officials could either make use of open public or expropriated land to build their baths.⁵⁴ But just how prevalent was this practice? Did town officials often commandeer or purchase privately-owned spaces for their baths, or did they tend to gravitate towards already open and available spaces? These questions will be considered in the third and fourth chapters. The second consideration is the presence of pre-existing bathing establishments (i.e., Greek-style and legionary baths) and related infrastructure, also to be considered in the third and fourth chapters of this dissertation.

Conclusions

As mentioned at the beginning of this introduction, the appearance of Roman architecture (including the ubiquitous bathhouse) in provincial urban spaces has been taken in the past as a sign of the top-down 'Romanization' of the provinces. This dissertation interrogates this

⁵³ Williams 1993: 29.

⁵⁴ Nielsen 1993a: 121.

perception of Roman acculturation by examining the circumstances surrounding the introduction of Roman-style baths to the provinces as well as the agency of local communities to influence the placement and construction of these facilities. It does so by identifying the factors that contributed to the choices made by local provincial communities when they decided to add a Roman bath to their urban landscape. The ubiquity and sheer number of Roman-style baths that existed and remain extant prevents a comprehensive survey of all known baths within the scope of this study, and thus eleven Roman provinces were chosen as case studies, beginning with those in the western Empire, Italia, Tarraconensis, Lusitania, Baetica, and Britainnia. These regions will be examined in Chapter One. Chapter Two will cover Achaea, Macedonia, Epirus, Crete and Cyrenaica as well as Asia, and Lycia and Pamphylia.

Chapter 1 The Location of Roman Public-Sector Baths in the Roman Provinces of Italia, Tarraconensis, Lusitania, Baetica, and Britannia

There are three main aims for this chapter. The first is to identify the urban locations for Roman public baths in the provinces of Italia (modern Italy); Tarraconensis, Lusitania, and Baetica (Spain and Portugal); and Britannia (Britain), including the frequency with which these different locations were chosen. This includes both the larger urban zone-type (e.g., commercial, residential, and suburban) and the specific buildings near which the baths are constructed (e.g., forum, harbour, stream, etc.). The second aim is to examine whether preference for certain locations showed regional variation; that is: did the frequently with which locations were chosen change from province to province, and if so, why or why not? The status of a city or town will also be considered as a possible factor influencing the placement of baths, along with its settlement history. For example, did *ex novo* communities (those built from the ground up) share the same bath placement as their re-developed counterparts? Finally, the chapter will explore the degree to which practical considerations (including the need for customers, water, and fuel, connections to specific buildings/areas, and the availability of space) are reflected in the locations chosen for Roman-style baths.⁵⁵

⁵⁵ The urban locations of Roman baths have not been studied in any systematic way. The closest example of such a study comes from Inge Nielsen who, in the geographical index of her book *Thermae et Balnea*, lists Roman cities and towns in which a bath was located near the forum, agora, or centre of town (Nielsen 1993a: 184-91). General mention of urban bath location has also been made by Janet DeLaine (1999b: 68) in her contribution to the edited volume *Roman Baths and Bathing*, "Benefactions and urban renewal: bath buildings in Roman Italy," where she identifies "forum baths" and lists examples of accordingly situated baths from Italy. DeLaine also noted in her earlier 1988 article "Recent Research on Roman Baths," that large public baths were usually found near the forum, though in this instance she does not indicate where in the Roman world this was the case (DeLaine 1988: 29). Garrett Fagan, has also referenced bath location stating that "[a]s a rule the location of the main bathhouses of a Roman community [was] often at gates or near the forum." (Fagan 2002: 208-209. See also page 61, n. 69).

Methodology

To achieve the aims of this study, a survey of the urban location of public baths in sixtythree Roman cities and towns from Italy, Spain and Portugal, and Britain was conducted,
drawing largely on published site plans and excavation reports for the relevant data. These
specific provinces were chosen as case studies, because of their varying urban settlement
histories and exposure to pre-Roman communal bathing establishments. Italy was the obvious
place to start, as Roman-style baths originated here, but this region was also familiar with Greekstyle baths and bathing culture. In contrast, the regions of Spain and Portugal as well as in
Britain had no pre-Roman familiarity with hot-water public baths and bathing.

The towns and cities in the regions surveyed had varied settlement histories (from *ex novo* foundations to very well-established cities) and statuses (including the seats of the governor, *coloniae*, *municipa*, *civitas/conventus* capitals, and towns without any known official title). In Spain and Portugal specifically, fewer cities and towns with no status or *conventus* status were included in the survey than *coloniae* and *municipia* because far fewer of these types of settlements had the necessary information about bath location available. Colonies and municipia here are far more commonly and fully excavated and published.⁵⁶

The results of the survey will be presented by region, beginning with Italy, then Spain and Portugal, and then finally Britain. Within the discussion of each region, the cities and towns have been categorized by their legal status, and discussion will move from the seats of the governor, to *coloniae*, to *municipia*, to *civitas* or *conventus* capitals, and end with the places with no known status (as applicable). This organization was chosen to accommodate a discussion of

⁵⁶ This is also generally true for Italy, although to a lesser degree. In Roman Britain, the most commonly excavated site type included in this survey is the *civitas* capital.

status as a possible factor contributing to bath placement. Within each civic category, the sites are organized by region were applicable (Augustus' regions in Italy; provinces in what is now Spain and Portugal) and then alphabetically within each region. The urban situation of each bath is described with as much detail as possible, including all nearby buildings, streets, urban spaces, and natural features in the vicinity of the public bathhouse(s). This means that in some instances baths have been associated with multiple buildings or spaces in the final concluding sections of each chapter and have been counted more than once in the final tally. When there is some question as to whether the structure identified as a bath is in fact a bath, or when there is some debate about whether the bath was public or private, or when the surrounding buildings have not been concretely identified, the urban location of the structure will still be described in as much detail as possible. This was done to give as full a picture as possible of the potential baths in each town. Such buildings, however, will not be included in the final count (given in Appendix I).

There is a particular difficulty which must be addressed in relation to the extant evidence, namely what constitutes nearness to a particular monument or urban space. ⁵⁷ Approximate measurements in metres have been provided where available, ⁵⁸ and these represent the shortest distance between the bathing facility and the topographical feature or structure(s) surrounding it. Of course, "nearness" cannot always be expressed with absolute measurements, and thus when these are not available, the individual urban context of each site⁵⁹ (including *insulae*, roadways, etc.) is employed when describing the distance of a bath from another urban structure. Moreover, many baths are excavated in isolation, with little known about the structures which surround

⁵⁷ These obstacles were also identified by Monika Trümper in her study of the urban context of seventy-five Greek public baths (2013b: 37, 44).

All measurements were calculated using a combination of published site plans and excavation reports.

⁵⁹ As suggested by Trümper (2013b: 44).

them. This makes it difficult to determine local distribution patterns⁶⁰ and thus only those sites (and baths) have been chosen where some information is known about the surrounding urban context and structures beyond the bath's location in the city.

Even where exact measurements have been provided, it is important to remember that distances are relative; how do we compare nearness in a small little Romano-British city like *Venta Icenorum* (Caistor St Edmund), where 200 m is over half the length of the town, with huge imperial cities like Ephesus where 200 m is the length of a one structure (i.e., the Portico of Verulanus)? The solution adopted here was to consider distances between buildings in relation to the overall size of the towns. While this method presents a degree of subjectivity, especially when dealing with cities and towns which have not been fully excavated and therefore do not have clearly define urban borders, it allows for a more localized sense of "nearness" when determining the proximity of a bath to its surrounding urban landscape and better reflects the local realities of the individual sites.

This survey includes baths from one hundred cities and towns from across the Roman Empire. As it is not feasible to include a site plan for each, I have included a representative sample below (one from each of the five modern regions included in the survey) to demonstrate relative distances between baths and their surrounding architecture (Figures 1-5).

⁶⁰ Once again Monika Trümper has identified the same problem (2013b: 37).

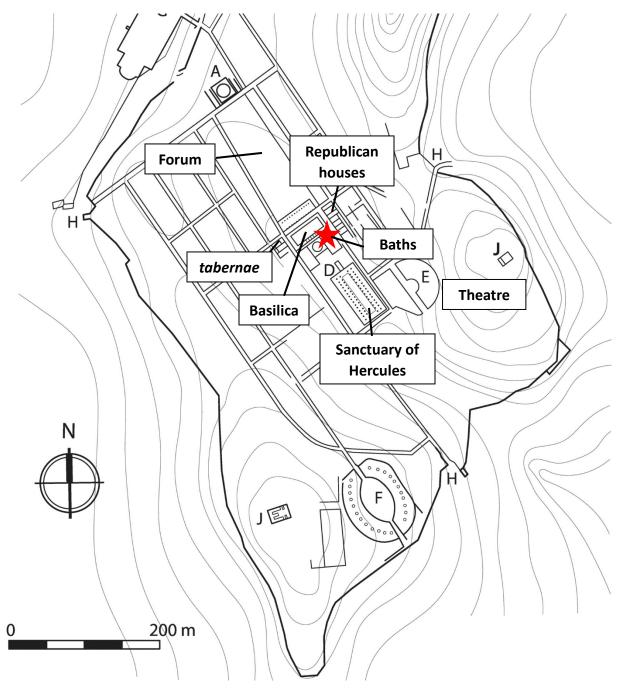


Figure 1: Site plan of Alba Fucens, Italy with baths and surrounding architecture labelled (after Yegül and Favro 2019: fig. 1.32).

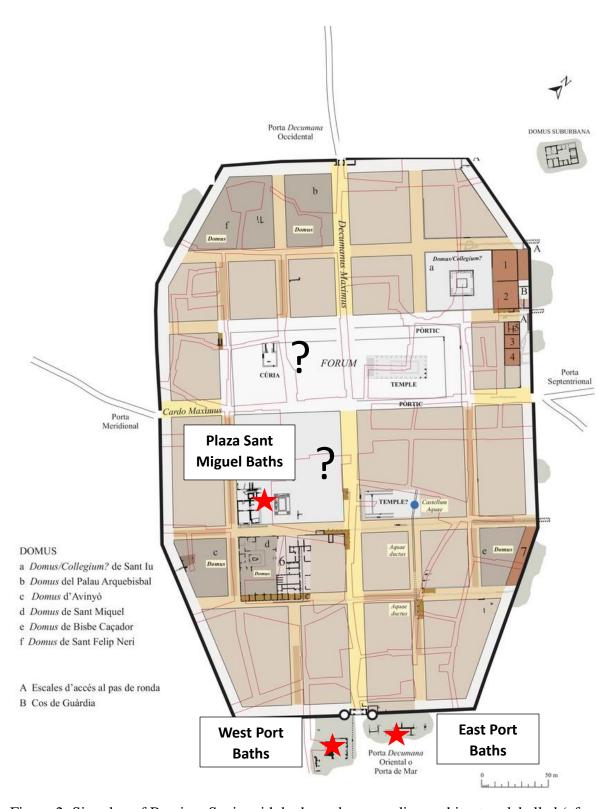


Figure 2: Site plan of Barcino, Spain with baths and surrounding architecture labelled (after Beltrán de Heredia 2015: fig. 1).

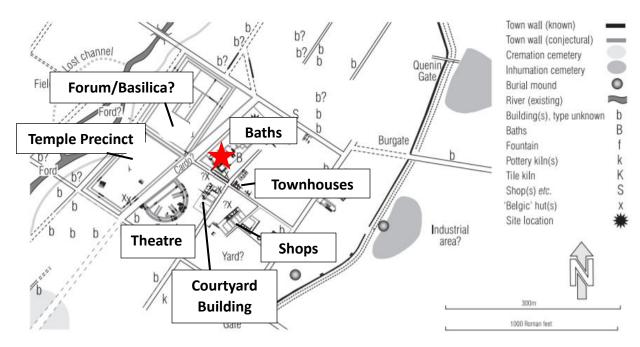


Figure 3: Site plan of Canterbury, Britain with baths and surrounding architecture labelled (after Helm et al. 2010: 26).

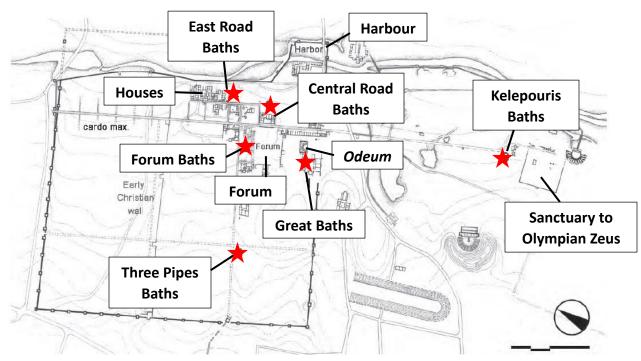


Figure 4: Site plan of Dion, Greece with baths and surrounding architecture labelled (after Oulkeroglou 2017 2017: fig. 1).

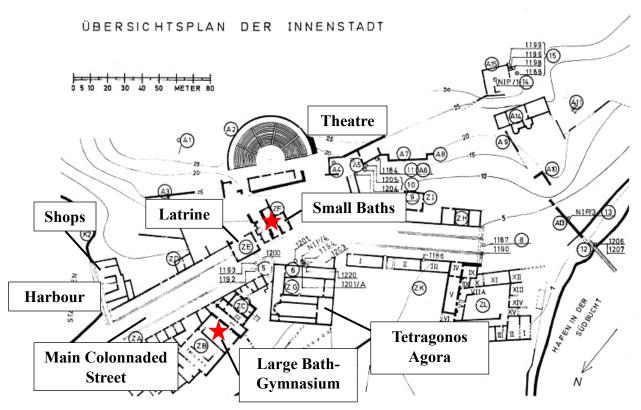


Figure 5: Site plan of Phaselis, Turkey with baths and surrounding architecture labelled (after Schafer 1981: plate 39).

ITALIA (Italy)

The first area of the empire to be surveyed is the region of Italia, modern day Italy. The twenty-four cities included in the survey come from a number of Augustus' *regiones*, from *Transpadana* (*regio* XI) in the north to *Lucania and Brutium* (*regio* III) in the south (Figure 6). They include both *ex novo* foundations like Ostia and pre-existing urban settlements including Pompeii and Cumae.

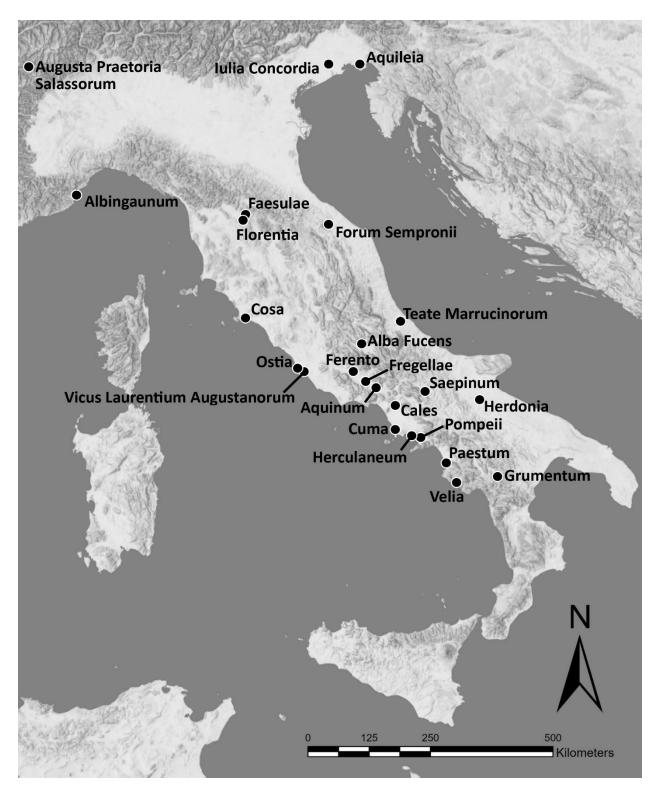


Figure 6: Map of Italy showing sites included in survey.

The increased Roman presence across the peninsula resulted in a number of Italy's preexisting urban settlements undergoing not only changes in status and occupants, but also in their
urban structure. Some, which sided with Rome in its various wars, were granted varying degrees
of Roman rights, with Cales, Capua, Herculaneum, and Herdonia being granted full *municipium*status as a reward for their loyalty. These cities, while escaping the retributive destruction
experienced by some of their non-loyal contemporaries, still often implemented re-formations of
their city layout, including the introduction of axial orthogonal grid planning (where it did not
already exist) and monumental Roman-style architecture, including, most importantly for our
purposes, Roman baths. Those cities which did not support Rome, faced a number of
consequences. Some, such as Praeneste, were completely destroyed and re-built, while others,
including Paestum and Pompeii in Campania, experienced urban extension and re-planning,
being re-founded as colonies.⁶¹

As with all the provinces included in this dissertation, the Roman baths of Italy were often excavated incompletely and in isolation. The reasons for this are varied and include the presence of modern buildings overlaying these areas and the traditional focus of publications on bath architecture and type rather than spatial relationships (both landscape and chronologically). Therefore, only cities for which there was some information about the surrounding urban landscape (often in the form of a published city plan) were included in this survey.

In a study of Roman baths in their urban context, one might expect Rome to be the point of origin. However, despite the fact that the baths in the capital clearly had an influence on bath construction in the surrounding area, as Fagan has noted, in terms of bath benefaction, Rome was

⁶¹ Paestum, a Latin colony, was established by the Romans in 273 as punishment for Paestum's allegiance to Phyrrus during his war with Rome (280-275 BCE) and settled with Latin colonists. This type of colony was used by the Romans across the peninsula, and includes Alba Fucens, Cales, and Cosa.

a special case and therefore should not be used as a model for the rest of the empire. As Laurence has pointed out, Rome experienced more of an organic than planned growth and displays none of the characteristics that have come to be identified as typical of Roman urban planning. Therefore, Rome has not been included in the survey below, which instead focuses on cities and towns from a variety of different statuses and *regiones* on the Italian peninsula. These towns are organized, first by town type (i.e., *coloniae*, *municipium*, no known status), then by *regio* (moving from north to south), and then alphabetically within each region.

Coloniae

Augusta Praetoria Salassorum, Transpadana – regio XI (modern Aosta)

Located at the foot of the Alps in Northern Italy, the Augustan colony of *Augusta*Praetoria Salassorum has two known Roman-style baths: the first century CE Forum Baths and the second century Grand Baths.⁶⁴ The Forum Baths take up the eastern half of *insula* 21, and are separated from the Forum *insula* by a lesser *cardo* (approximately 90 m east of the forum proper).⁶⁵ The Grand Baths are in *insula* 34 at the southwest corner of the intersection of the cardo maximus and decumanus maximus.⁶⁶ Across the intersection is the southwest corner of the forum and one *insula* to the west is the western city gate.⁶⁷

⁶² Fagan 2002: 128.

⁶³ Laurence et al. 2011: 14. This includes orthogonal design and axial planning. See also Sewell 2010; Laurence et al. 2011; Laurence 1994; and Castagnoli 1971).

⁶⁴ Armirotto et al. 2019: 92, 94; 2017: 114; Framarin 2004: 47.

⁶⁵ Armirotto et al. 2019: 82, 91; 2018: 192; 2017: 114. Measurement taken from Armirotto et al. 2019: fig. 3.

⁶⁶ Armirotto et al. 2019: fig. 3; Armirotto et al. 2018: 191; Framarin 2004: 46.

⁶⁷ The Grand Baths are 140 m east the West Gate (Armirotto et al. 2019: fig. 3).

Cosa, Etruria – regio VII

The Latin colony of Cosa, located on the Tuscan coast, 140 km northwest of Rome, has one known public bath. Originally built in the early Augustan age and rebuilt again post-Hadrian,⁶⁸ these baths are located 15 m (one *insula*) west of the forum.⁶⁹ The baths were likely fed by a large (initially Republican) cistern that sat at the west corner of the forum and across the *cardo maximus* (Street 'O') from the baths.⁷⁰ The *insulae* surrounding the baths are thought to be filled with houses, although only those to the west have been excavated.⁷¹ The baths sit at the intersection of two important streets, Street O to their east (onto which the baths opened)⁷² and the Street '5' to the south.⁷³

Florentia, Etruria – *regio* VII (modern Florence)

The earliest extant bath at the colony of Florence,⁷⁴ located in north-central Italy (modern Tuscany), dates to the first century CE.⁷⁵ It is located west of the forum, in the *insula* behind the capitol (which separates it from the forum), with its south side facing onto the *decumanus* maximus.⁷⁶ The second set of baths belongs to the late first to early second century CE⁷⁷ and was established outside the Roman city walls,⁷⁸ immediately west of the south city gate, at the junction where the city wall meets the *cardo maximus*, which upon leaving the town, leads to the

⁶⁸ De Giorgi 2019: 115, 117, 118, 120. Smith et al. (2015: 18) suggest a Hadrianic or Antonine date for the bath's second phase.

⁶⁹ Measurement taken from De Giorgi 2018: fig. 2.

⁷⁰ De Giorgi 2019: 117, fig. 1; Scott et al. 2015: 19; Brown et al. 1993: 236.

⁷¹ De Giorgi 2019: fig.3.

⁷² De Giorgi 2019: 118.

⁷³ De Giorgi 2019: fig. 1, fig. 3. These are both important streets leading to one of the city's main gates and may have been the *cardo maximus* and *decumanus maximus* respectively.

⁷⁴ Called Florentina during the Roman period. The colony was founded between 30 and 15 BCE but underwent a reconstruction at the end of the first to beginning of the second century CE (Scampoli 2010: 9, 12; Maetzke 1941: 25).

⁷⁵ Scampoli 2010: 24; Ciampoltrini 1995: 436.

⁷⁶ Scampoli 2010: 24; fig. 4; Ciampoltrini 1995: 435.

⁷⁷ Scampoli 2010: 24; Maetzke 1941: 65.

⁷⁸ Known as the *Terme di Por Santa Maria* or *del Capaccio*.

port.⁷⁹ The *castellum aquae* that fed these baths leaned up against them at the western tower of the south gate.⁸⁰ The latest (Hadrianic in date),⁸¹ and potentially largest of the three Florence public baths,⁸² the *Terme di piazza Signolia*, is in the south-eastern quarter of the town, near a lesser southern gate (the Gold Gate), and the town's theatre.⁸³

Aquileia, Venetia and Histria – regio X

The fourth century Great Baths of Aquileia, ⁸⁴ an important colony located about 10 km inland from the Adriatic, on the Natiso River near the northeast border of Italy, are found in the town's southwestern sector, an area filled with many monumental structures related to leisure and entertainment. The baths lie directly across the street from and 25 m northwest of the Julio-Claudian amphitheatre, and 430 m southeast of the Tetrarchic circus. Approximately, 90 m to the northeast is the city theatre. The *insula* within which the baths sit borders the late Antique western city wall, and a late antique gate allowing visitors to enter the city through the Necropolis stands about 90 m to the southwest of the baths. ⁸⁵

⁷⁹ Scampoli 2010: 24; fig. 4.

⁸⁰ Scampoli 2010: 24.

⁸¹ Scampoli 2010: 25.

⁸² Estimated to be approximately 5,600 m², only 2100 m² of the structure has been excavated (Scampoli 2010: 25).

⁸³ Scampoli 2010: 25; fig. 19. There are another two baths known from the site: one east of the forum, under the Pagliazza Tower, and another one the east side of the north gate. Only 145 m² of the first bath has been explored (Scampoli 2010: 25), and even this is unpublished (Ciampoltrini 1995: n. 32), making it impossible to known whether it held a public or private function. The public or private function of the second bath (moderate in size) is also unclear: Ciampoltrini (1995: 433) says the bath's location at a gate suggest a public clientele; however, the fact that the baths were created by the insertion of small, heated rooms and a large, tiled hall into a Julio-Claudian large *domus* (Scampoli 2010: 24, 30) may suggest private ownership (perhaps a *mansio*). These later baths have been associated with the *Balneum Martis* mentioned in an undated funerary epitaph (*CIL* VI.16740 = *ILS* 8518). See Scampoli 2010: 24 for discussion of the epitaph and bibliography.

⁸⁴ The baths have been identified with the *Thermae Felices Constantinianae* by a fragmentary inscription (Lopreato 2004: 372-374) and may have gift from the emperor Constantine in the first half of the fourth century CE (Rubinich 2009: 108; Rubinich 2011: K1). See Rubinich 2014: 112-115 for a discussion of the complications regarding the dating of this bath. Rebaudo suggests the possibility that the baths originated the middle of the second century CE, refurbished in the third century CE, and then received a substantial makeover in the fourth century (Rebaudo 2004: 290), however, Rubinich puts both sets of renovations in the fourth century CE (Rubinich 2019: 128). There are some who question whether this building is a bath (including Verzar-Bass and Mian 2003: 83 and Mirabella Roberti 1981: 217). See Rebaudo 2004: 290 for discussion.

⁸⁵ All measurements taken from Croce Da Villa 2007: fig. 3.

Iulia Concordia, Venetia and Histria – regio X (modern Concordia Sagittaria)

Located just east of the crossroads of the *Via Annia* and the *Via Postumia*, the Roman colony of Iulia Concordia has two possible public baths. The best known and published of these was built in the late second century CE⁸⁶ and sits in the very northeastern corner of the town beside the Augustan wall and just (5 m) northwest of a city gate.⁸⁷ Another bath is depicted on some site plans in the western sector of the city, in the *insula* against the western wall, and just north of the artificial channel that ran through the southern sector of the city connecting the two watercourses that ran along the east and west of the town.⁸⁸ This bath, however, does not appear to have been published and therefore its dating and public function are not secure.⁸⁹

Alba Fucens, Samnium – regio IV

Located on one of Apennine Mountains in Central Italy, at the intersection of the roads leading to the Adriatic and Campania, 90 the colony at Alba Fucens has one known bathing facility, which is mid-first century BCE in date 91 and is located southeast of the forum. More specifically, it lies approximately 55 m from the south end of the forum, separated from it by the *cardo maximus*, a basilica, and the *macellum*. 92 The baths extend west to the *decumanus maximus* (*Via del Miliario*) and east to another to important *decumanus* (*Via dei Pilastri*). 93

⁸⁶ Croce Da Villa 2008: 166; 2007: 339; 2001a: 134; 2001b: 168.

⁸⁷ Laird 2015: fig. 90.

⁸⁸ See Salvemini et al. 2014: fig. 1 and Ghedini and Annibaletto 2012: 292 for the location of this bath. For discussion of the internal channel see Vigoni 2006: 451–68.

⁸⁹ When mention is made of the West Baths in the literature of Iulia Concordia, it is only in passing (i.e., Ghedini and Annibaletto 2012: 291) or on the occasional site plan (Laird 2015: fig. 90). This bath is not included in the final survey count.

⁹⁰ Yegül and Favro 2019: 44.

⁹¹ Coarelli and La Regina 1984a: 65.

⁹² Measurements taken from Yegül and Favro 2019: fig. 1.33.

⁹³ Coarelli and La Regina 1984a: 83.

Across the street to the west are a series of *tabernae* and to the east, Republican houses.⁹⁴ Directly to the south of the baths is the Sanctuary of Hercules.⁹⁵

Teate Marrucinorum, Samnium – regio IV (modern Chieti)

In central Italy, 200 km northeast of Rome, the *municipium* turned colony of Teate Marrucinorum has one known Roman-style bathing complex. It is mid first century in date and is located in the lowest and most peripheral part of the city, on the eastern slope on which the city is built. ⁹⁶ The area is naturally rich in water ⁹⁷ and to the northwest, on the terrace above the baths, is a large complex of cisterns (over 60 m long with nine brick niches). ⁹⁸ A set of stairs connected the cistern and the baths. ⁹⁹

Aquinum, Latium and Campania - regio I

The only known baths (The Central or Vecciane Baths) of Aquinum, a Republican *municipium* turned imperial colony located in southern Latium (south-central Italy) along the *Via Latina*, are in the centre of the town, approximately 150-200 m northeast of the theatre. Between them sits the so-called "Apsidal Building." The *insula* in which these late first century BCE¹⁰² baths sit is bordered on its west side by the *cardo maximus*; accavation has not

⁹⁷ A natural drainage basin along the slope of the hill allowed rainwater to be collected in a series of cisterns above the baths (Di Iorio 2013: 17).

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⁹⁴ Coarelli and La Regina 1984a: 74, 82; Yegül and Favro 2019: fig. 1.33

⁹⁵ Coarelli and La Regina 1984a: 74; Mertens 1991: 106; Yegül and Favro 2019: fig. 1.33.

⁹⁶ Coarelli 1984: 150; 151; Iezzi 2013: 14.

⁹⁸ Coarelli 1984: 150; 151; It is estimated that the cisterns' capacity was 3556 cubic meters of rainwater which was carried to the baths via underground terracotta pipes (Di Iorio 2013: 16-17; Iezzi 2013: 14-15).

⁹⁹ Coarelli 1984: 151.

¹⁰⁰ Ceraudo et al. 2013a: 101; 2013b: fig. 1. The northeast corner of the theatre *insula* and the southwest corner of the bath *insula* meet at the *cardo maximus*. See Ceraudo 2014: fig. 1 and Ceraudo et al. 2013b: fig. 1.

¹⁰¹ It is also referred to as the Temple of Diana, but the function is unknown (Ceraudo 2019: 67; fig. 3).

¹⁰² Albiero et al. 2014: 1-2 (between late Republican and Augustan); Ceraudo 2019: 67 (Augustan); Ceraudo and Vincenti 2015: 258. The bath's initial phase is sometimes pushed to the first century CE (e.g., Ceraudo and Murro 2016: 69; Ceraudo 2013b: 2).

¹⁰³ Ceraudo and Vincenti 2015: 257; Ceraudo et al. 2013a: 101.

yet revealed whether the baths extended all the way to it.¹⁰⁴ It is known, however, that the baths were entered via the *decumanus* (*Via delle Terme*) to the north, ¹⁰⁵ or through the larger and more monumental entrance on the *decumanus* to the south (*Via del Teatro*).¹⁰⁶

Cales, Latium and Campania - regio I

The Central Baths at Cales, a Roman colony of Ausonian origin and later *municipium* in Southern Italy, 40 km north of Naples, date between 90 and 70 BCE.¹⁰⁷ It borders the east side of the proposed forum, with the theatre approximately 150 m to the west. ¹⁰⁸ It is situated roughly in the centre of town, about 75 m south of the *Via Latina* which entered the city from the west. A triumphal arch and the *cardo maximus* are ca. 50 m to the bath's southwest. The second century CE Northern Baths are on the west side of the *cardo maximus*, about 685 m north of the Central Baths.¹⁰⁹

Fregellae, Latium and Campania - regio I

Fregellae, a short-lived Latin colony¹¹⁰ located in the valley of the Liris River about 95 km southeast of Rome,¹¹¹ has two known baths, one built on top of the other. The earliest (dated to the later half of the third century BCE)¹¹² was promptly torn down and replaced by a grander one in the second quarter of the second century CE.¹¹³ They are located in the heart of a

¹⁰⁴ A possible western entrance to the baths has been found, however, no mention is made about how or if this entrance related to the *cardo maximus*. (Ceraudo and Murro 2019: 79; 2016: 66, 68).

¹⁰⁵ Albiero et al. 2014: 4, 5.

¹⁰⁶ Ceraudo 2019: 68, 73; 2014: 4.

¹⁰⁷ Volpicella 2006-2007: 219; Johannowsky 1961: 263.

¹⁰⁸ Measurements taken from Quilici Gigli 2020: fig. 1 and Johannowsky 1961: 260; fig. 1.

¹⁰⁹ Johannowsky 1961: 259-260; n. 15; fig. 1.

¹¹⁰ Founded as a citizen colony in 328 BCE, the town was razed in 125 after revolting against Rome (Yegül and Favro 2019: 41, 42; Tsiolis 2001: 86; Crawford and Keppie 1984: 21, 23).

¹¹¹ Yegül and Favro 2019: 41

¹¹² In his earlier publications Tsiolis (2006: 252; 2001: 85, 99) dates the baths to the middle of the third century BCE, while in his 2016 he narrows it down to the last thirty years of the third century (Tsiolis 2013: 89, 105). ¹¹³ ca. 185 and 150 BC (Tsiolis 2001: 85; 2006: 250).

residential sector of the town, close to the forum (ca. 130 m northeast of the forum). ¹¹⁴ They open to the south onto the *decumanus* ('*decumanus* 1') that leads to the forum, running along its northern side. ¹¹⁵

Ostia, Latium and Campania – regio I

Ostia, the next city to be examined, has a total of 23 known baths, four of which are of a scale which suggests public usage. The earliest baths identified from Ostia, thought to date to the late Republic or early Principate, are known only by inscription, while the earliest physical bath remains belong to the Julio-Claudian period. 118

The earliest identified public baths in Ostia are the Baths of the Swimmers (*Terme del Nuotatore*), which were originally built in 80-90 CE, during the reign of Domitian, and were later renovated under Hadrian and Antoninus Pius. ¹¹⁹ Located at V.X.3, a mere 10 m east of the Sanctuary of the Bona Dea, and about 80 m southwest of the *Horrea di Hortensius* (which date to approximately 25-50 CE), ¹²⁰ these baths were in what appears to be a largely commercial district of Ostia where shops and workshops predominate in the *insulae*.

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 $^{^{114}}$ Yegül and Favro 2019: 42; Tsiolis 2013: 89; 2006: 243; 2001: 88. Measurement from Tsiolis 2006: fig, 1.

¹¹⁵ Tsiolis 2001: 88; 2006: 243.

¹¹⁶ Two of the four also have evidence of imperial benefaction (The Porta Marina Baths and the Baths of Neptune). See footnotes 122 and 123 for evidence.

¹¹⁷ CIL XIV.4711. These baths were dedicated by C. Cartilius Poplicola, a great benefactor of Ostia (Caldelli 2008: 264, n. 23).

¹¹⁸ There appears to be one set of baths under the *Via sei Vigiles* and another from the southeast district of the town, both of which have only been partially uncovered. Meanwhile, the Baths of Invidious on the *Semita dei Cippi*, was largely rebuilt in the first half of the second century CE and is one of the numerous private baths (*balnea*) so far uncovered at Ostia (Meiggs 1973: 406, n. 6).

¹¹⁹ Medri and di Cola 2013. A bust reused in the later Hadrianic rebuilding may represent the individual responsible for the original Domitianic construction while a *fistulae*, stamped by Arria and Larcia Priscilla (Medri and di Cola 2013: 94), might indicate another act of euergetism at the time of the Hadrianic reconstruction (Fentress 2015: 2). ¹²⁰ Hermansen 1982: 96. All measurements taken from Meiggs 1973: Plan of Ostia.

The next public baths to be built were those near the *Porta Marina* (IV.X.1-2). Begun towards the end of Hadrian's reign and finished in the first years of Antoninus Pius' reign, ¹²¹ these baths (like the Baths of Neptune and the Forum Baths) were a product of imperial beneficence: Hadrian promised two million sesterces for their erection, while Antoninus Pius contributed extra money for the marble decoration. ¹²² Located outside and ca. 100 m southeast of the port gate, the baths occupied an entire *insula* (X) along the ancient shoreline. A small extramural open space (referred to as the Forum of the Marina Gate), shops, workshops, and a second Sanctuary to Bona Dea filled the *insula* (VIII) to the bath's north. Ostia's importance as a seaport continued into the second century CE, and it seems reasonable to assume that these public baths, the first known to have imperial sponsorship in Ostia, were meant to serve those coming to or leaving the city by sea.

The third set of public baths, the Baths of Neptune (II.IV.2), were build around the same time as the Porta Marina Baths, begun not before 127 CE and possibly finished in the first years of the reign of Antoninus Pius. 123 The baths were entered along the north side of the *decumanus maximus*, and were located directly beside (and west of) the town's theatre, which lay about halfway between the *Porta Romana* and the Forum. 124 The baths did not have a grand façade

¹²¹ Turci 2021: 133, 142.

¹²² CIL.XIV 98. This inscription was until recently linked to the Baths of Neptune (For example: Meiggs 1973: 75, 409; Vaglieri 1913: 10). See Turci 2021 for a discussion of the inscription and its new attribution. Another inscription from these baths (CIL XIV.137) indicates that aside from the money given by Valens, Gratianus, and Valentinanus towards restoration of this bath, the prefect of the *annona* (public funds) was also involved, suggesting that this was a publicly owned bath (Turci 2021: 137).

¹²³ Brick stamps put the origins of the bath in the Hadrianic period and stamps dating to between 134 and 141 in the hypocaust of the *tepidarium* may stretch the completion of the baths into Antoninus' reign (DeLaine 2002: 59-61; Meiggs 1973: 409). Although inscription *CIL* XIV.98 records direct imperial benefaction from Hadrian and Antoninus Pius, it is no longer associated with The Baths of Neptune. See footnote 122 for more information about the attribution of the inscription. Brick stamps from the Baths of Neptune, however, still suggest some sort of imperial involvement: 40-50% of the *domini* on the brick stamps of this bath come from the Imperial family or their close associates (DeLaine 2002: 59).

¹²⁴ Meiggs 1973: fig. 30.

opening out onto the *decumanus maximus*; instead a line of shops bordered the street.¹²⁵ This entire zone (including the baths, several apartment buildings, warehouses and the Barracks of the Vigiles, which lay directly behind the baths, to the north-west) seems to have been part of one building program. The choice of location for the baths may have been dictated by the presence of the theatre, or perhaps because of the newly erected Barracks.¹²⁶

The Forum Baths (I.XII.6) were the last of the public baths to be built in Ostia. Erected during Antoninus Pius' reign, 127 like the Porta Marina Baths and the Baths of Neptune, these were likely at least partly funded by imperial subsidy. 128 The baths are located immediately to the east of the south end of the largely Hadrianic forum. They are faced by a row of *tabernae* and open onto the *cardo maximus*, which leads south away from the forum. They face a row of houses, *tabernae*, and the *Nymphaeum of the Erotes* opposite. To the south is an industrial area including a warehouse, fullery, and mill-bakery. These baths are not, however, the first baths to have been built adjacent the forum. Directly north, but (initially) separated by a basalt side street, lay the remains of a late Hadrianic bath building. The Severan additions to this baths suggest that they were in use at the same time as the Forum baths, at least until the fourth century CE, when the *Foro della Statua Erotica* and the *Caseggiato dei Triclini* to the east were built over top. 129 There also appears to have been yet another bath, north of the Forum and west of the Hadrianic baths, now lying under the fourth century CE *decumanus maximus exedra*. 130 The presence of

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¹²⁵ Meiggs 1973: 411.

¹²⁶ It is clear however, that the location was not chosen because of the pre-existing large cistern located on the north side of the d*ecumanus maximus*, as it had already gone out of use by the second century CE as indicated by the drains that cut across it (Meiggs 1973: 44).

¹²⁷ A date near the death of Antoninus Pius is probable as is suggested by the general character of the brickwork and the presence of Antonine brick stamps (Meiggs 1973: 411).

¹²⁸ Although built during his reign, the baths were not erected by the Antoninus Pius himself. Instead, an inscription from a later renovation to the bath suggests that the original may have been built by M. Gavius Maximus, a praetorian prefect for Antoninus (DeLaine 2002: 49; Meiggs 1973: 407, 415; Bloch 1953: 412).

¹²⁹ Lavan 2012: 668, esp. n. 48.

¹³⁰ Lavan 2012: 668.

three public baths in such a small area is unlikely, and thus it is probable that Hadrianic Baths and Exedra Baths were smaller private balnea, although it is possible that the Hadrianic Baths were used by the public until the construction of the Forum Baths. If so, this may help explain why the Forum Baths were the last of the public baths to be erected in Ostia – there was no pressing need in the area.

In summary, in its second century CE rebuilding, Ostia saw the introduction of three new large public baths into the city and the renovation of a Domitian survival. A look at the distribution of these public baths (thermae)¹³¹ indicates that they concentrate in the eastern half of the site and along the central axis, in largely public sectors of the city. This includes one near the forum, another at the gate leading to the ancient shoreline, a third near the theatre and fronting onto the decumanus maximus, and a final one in what appears to be a largely commercial area. The complete lack of public baths in the western half of the site (regio I and III, near the Tiber River) has led Fentress to wonder if we are missing another public bath in this area. 132 However, a look at the private bath distribution in the western sections of regio I and III of the town shows eight different baths, ¹³³ meaning a public bath in the area may not have been necessary.

Pompeii, Latium and Campania – regio I

At the time of Pompeii's destruction in 79 CE, the Sullan colony had three functioning public bath complexes. 134 The earliest, the Stabian baths, originally built in the fourth or fifth

¹³¹ See Medri and di Cola 2013.

¹³² Fentress 2015: 2.

¹³³ See Mar 1990: fig. 1.

¹³⁴ The second century Republican Baths, located in *insula* VIII.v, near the triangular forum were long seen as part of a public athletic and military complex, however, Trümper has recently argued against this interpretation, instead contending that they were a private enterprise 2018, see especially footnote 1 for bibliography). This interpretation

century BCE, and the latest, the Central Baths, begun after the earthquake of 62 CE, were both located in residential areas near the centre of town. The former was at the intersection of the cardo maximus (Via Stabiana) and decumanus maximus (Via dell'Abbondanza), four insulae (and almost 200 m) to the east of the forum. The baths occupy most of a city block (insula VII.i), although its north side is confined by the House of P. Vedius Siricus. The latter was further north (insula IX.iv) on the Cardo Maximus where it intersected with the Via di Nola. The latter was further north (insula IX.iv) on the Cardo Maximus where it intersected with the Via di Nola.

During the early first century BCE, the *insula* located to the north of the forum and its associated buildings, including the *macellum*, were entirely rebuilt, complete with a new Roman bath complex.¹³⁸ Peristyle houses fill the *insula* to the west of the baths, and a Temple of Fortuna Augusta sits on the corner of the *insula* to the east.¹³⁹

Finally, the Suburban Baths, erected in the early imperial period, ¹⁴⁰ were built on an artificial terrace southwest of the city walls, ¹⁴¹ just outside and north of the Marina Gate, which led visitors to the forum along the *Via Marina*. The baths were built in an area that since the second century BCE was a luxurious residential area. ¹⁴² These well-anointed baths may have

may also be supported by the bath's small scale, Augustan abandonment, and lack of inscriptions naming public officials (Koloski-Ostrow 2007: 237).

¹³⁵ Zanker and Schneider 1998: 68. These baths were likely the earliest of its type in the city and had four building phases. The earliest dates to the fifth or fourth century BCE and the layout preserved by the eruption comes from the second century BCE (Koloski-Ostrow 2007: 227). Laurence has suggested that dedicated bath buildings, like the Stabian baths, were leased to annually elected magistrates, which would suggest private ownership (Laurence 2006: 140). Measurements taken from Yegül and Favro 2019: fig. 1.35.

¹³⁶ Koloski-Ostrow 2007: 227.

¹³⁷ The baths lay approximately 115 m away from each other (Yegül and Favro 2019: fig. 1.35).

¹³⁸ Koloski-Ostrow 2007: 231; Laurence 2006: 22-23; CIL 10.819.

¹³⁹ About 15 m of space separates the baths from the temple (Yegül and Favro 2019: fig. 1.35).

¹⁴⁰ Koloski-Ostrow (2007: 224) suggests that baths are possibly Tiberian, while Jacobelli (1999: 225) places the initial construction of the baths to the first decades of the first century CE. The baths were extended to the north and west, likely after the earthquake (Jacobelli 1999: 225).

¹⁴¹ The east side of the baths is delimited by the city walls (Jacobelli 1999: 221).

¹⁴² Jacobelli 1999: 221.

been erected to serve those who had settled west of the city, those coming to the city via the sea, and/or those who lived in the apartments let out on the second floor. 143

Grumentum, Lucania and Brutium – regio III

There are two known baths from Grumentum, a Lucanian town turned Caesarean colony in the interior of southern Italy: the Republican and the Imperial Baths. The Republican Baths, mid-first century BCE in date, ¹⁴⁴ sit about 30 m southeast of the forum and its

Caesareum/Augusteum. ¹⁴⁵ The area southwest of the forum and northwest of the baths was filled with shops and two or three Roman houses. ¹⁴⁶ A projected secondary *decumanus* is thought to run along the bath's eastern side. ¹⁴⁷ The so-called "Imperial Baths," of mid first century CE date, ¹⁴⁸ are 110 m northeast of the forum and open up onto the same *decumanus* as the Republican Baths 210 m to the southwest. Directly west of the baths is a residential structure with various renovation phases extending from the Republican to the Late Imperial age. ¹⁴⁹

Paestum, Lucania and Brutium - regio III

The Baths of M.T. Venneianus, erected in the first half of the third century CE, ¹⁵⁰ are the only known baths from Paestum, a Greek foundation (Posidonia) turned Roman colony on the

¹⁴⁸ The dating of this bath is difficult, as there is very little stratigraphic evidence on which to base a construction date. The most recent publication on these baths (Tarlano et al. 2019: 175-6, 178) puts their construction in the midfirst century CE, however, previous articles place it almost a century earlier, sometime between the Caesarean and the Augustan ages (See Capano 2013: 115; 2006: 80; Thaler 2009: 324, 328).

¹⁴⁹ Tarlano et al. 2019: 179.

¹⁴³ Koloski-Ostrow (2007: 242) argues that although the baths seem to be publicly owned, they were reserved for a private clientele (presumably those living in the apartment buildings above).

¹⁴⁴ Tarlano et al. 2019: 175.

¹⁴⁵ All measurements taken from Capano 2013: fig. 1. The temple of the southern end of the forum is referred to as both the Caesareum (e.g., Mastrocinque et al. 2012: 366 and Mastrocinque and Saggioro 2012: 1) and Augusteum (e.g., Capano 2013: fig. 1; 2009: 80)

¹⁴⁶ Mastrocinque et al. 2012: 366.

¹⁴⁷ Capano 2009: 79.

¹⁵⁰ An inscription indicates that baths were built by M.T. Venneianus and then re-built by his son following a fire (*AE* 1935.28 = *IL.Paest* 100) (Fagan 2002 : 266-67, n. 108; Vitti 1999: 29; 2019: 288, 296; Carpiceci and Pennino 1996: 48; Greco et al. 1995: 87). As these baths were introduced quite late in the town's Roman history (almost 600)

coast of the Tyrrhenian Sea in Magna Gracia (northern Lucania). ¹⁵¹ The baths sits at the southeast corner of the intersection of the main North-South and East-West roads. ¹⁵² The forum sits to the bath's north, separated from it by a row of third century BCE¹⁵³ *tabernae* and one building of unknown use. ¹⁵⁴ Approximately 20 m to the baths' northeast is a second-to-third century CE basilica (often called the *curia*) and beside that a contemporary *macellum* (both of which open onto the south side of the forum). ¹⁵⁵ The baths' main entrance faced the town's most important north-south road which bordered the baths' west side. Abutting the baths' east side was the so-called "Roman garden" onto which a secondary entrance opened and in which there was a *castellum aquae*. ¹⁵⁶ Finally, the open area to the south of the baths housed the Sanctuary of Hera and more shops. ¹⁵⁷

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years after the colony's foundation), there must have been earlier public baths in use, although they have not yet been found.

¹⁵¹ Only the monumental core of the city has been so far excavated. Vitti (2019: 297-298) argues that the baths were privately owned although open to the public (perhaps rented by a city magistrate as Laurence (1994b: 140) has suggested for other dedicated baths). If this is the case, this individual must have held considerable power to be able to expropriate land that had been formerly part of the Sanctuary of Hera (Greco et al. 1995: 86), or perhaps worked with the city administration to procure the land.

¹⁵² These two important roads are known as the Sacred Way (*cardo maximus*) and the Marine Gate Road (*decumanus maximus*) (Carpiceci and Pennino 1996: 48). See Longo 2014: fig. 1 and 2; Carpiceci and Pennino 1996: 49; and Greco et al. 1996: 51 for bath location.

¹⁵³ Lomas 2014: Fig. 11.5.

¹⁵⁴ It has been suggested that this structure may be related to the imperial cult (Greco et al. 1995: 63).

¹⁵⁵ Vitti 2019: 287. The *curia* is only known from its last phase – the end of the first century CE. The macellum structure of "advanced imperial age" could also be a collegium building (Greco et al. 1995: 64). Measurements taken from Flohr 2020: fig. 10.4. Both *curia* and *macellum* date to the second or third centuries CE (Lomas 2014: Fig. 11.5).

¹⁵⁶ Greco et al. 1996: 86, 87. The *castellum* was about 1 m away from the east wall of the baths (Vitti 2019: fig. 3). ¹⁵⁷ Vitti 2019: 287, 288; 1999: 29; Carpiceci and Pennino 1996: 48; Greco et al. 1996: 67, 86, 87.

Municipia

Albingaunum, Liguria – regio IX (modern Albenga)

The only extant bath from Albingaunum, a port town and Caesarean *municipium* on the southern coastline of Northern Italy, is a large complex, built in the first century CE. ¹⁵⁸ these baths were erected in what would have been a suburban plain to the south of the centre of the Roman town, but is now the southern shoreline of the Centa River, ¹⁵⁹ which flowed (in Roman times) to the north of the baths and the Roman town. ¹⁶⁰ Remains of what is believed to be the Roman port lie to the east of the baths, just across the modern path of the Centa River. ¹⁶¹ The city's theatre lies nearby to the north. ¹⁶²

Forum Sempronii, Umbria and Ager Gallensis – regio VI (modern Fossombrone)

Located on a plateau north of the Metauro river valley, on the *Via Flaminia* in Central Italy, the *municipium* of Forum Sempronii has two extant baths. The best known are the early first century CE "Piccole Baths," located in the southern periphery of the town, approximately 50 m northeast of the town wall and the slope leading to the river valley below. A south gate has been conjectured to lie about 70 m to the bath's south. Unfortunately, excavation has not yet revealed what else lay in the immediate vicinity of these baths. The early second century

¹⁵⁸ Conventi et al. 2019: 34. 41; Massabò (2006: 6, footnote 10) suggests that the baths could date to between the end of the first and beginning of the third centuries based on the typology of a mosaic in the bath and a possible connection to a lost funerary epitaph (*CIL* V.7783) which mentioned a public bath begun at the end of the second century CE by M. Valerius Bradus Mauricus, proconsul of Africa. The bath's original excavator Nino Lamboglia dated the baths to the Flavian period (Bozzi et al. 2017).

¹⁵⁹ Conventi et al. 2019: 34, 44; Massabò 2006: 1

¹⁶⁰ Massabò 2006: 1.

¹⁶¹ Excavations at the modern road bridge revealed concrete structures thought to be related to the Roman port (Massabò 2006: 1, 2).

¹⁶² Measurements are not available.

¹⁶³ Possibly Augustan (Luni and Gori 1978: 25-6).

¹⁶⁴ All measurements taken from Mei et al. 2017: fig. 1.

¹⁶⁵ Mei et al. 2017: fig. 1; Luni and Gori 1978: 12; 1982: 119.

Grand Baths sit in the southern sector of the *insula* south of the forum. ¹⁶⁶ The *decumanus maximus* (*Via Flaminia*) borders the bath *insula's* northern side (separating it from the forum), while what is thought to be the *cardo maximus* runs along the *insula's* eastern side. ¹⁶⁷ The baths face onto the second most important *decumanus* of the city, one which probably absorbed a lot of the wheeled traffic diverted from the *Via Flaminia* along the southside of the forum. ¹⁶⁸ These baths sit near (75 m southeast of) the projected east gate and two *domus* have been uncovered in the *insulae* surrounding the baths. ¹⁶⁹ A third possible bath appears on some site plans, west of the Piccole Baths; however, it does not appear to have been published and so is not included in this survey. ¹⁷⁰

Ferento, Latium and Campania – regio I

Located on a flat plateau in central Italy, 75 km northwest of Rome, the *muicipium* of Ferento, has not been extensively excavated;¹⁷¹ however a few monumental buildings, including a public bath, have been uncovered. These baths take up an entire city block directly beside/east of (and 23 m removed from) the Augustan/early imperial theatre.¹⁷² Together these two buildings are located in the narrower western sector of the city, south of the *decumanus maximus* (*Via*

¹⁶⁶ There may have been an earlier, smaller Julio-Claudian bath beneath the Trajanic/Hadrianic one (Mei et al. 2019: 168).

¹⁶⁷ Mei et al. 2017: fig. 1.

¹⁶⁸ Mei et al. 2017: 77-8.

¹⁶⁹ The two *domus* are the House of Europa and the House of Exotic Animals.

¹⁷⁰ In some plans (e.g., Mei 2008: fig. 2) the structure is referred to as "rooms with heating system (hypocaust)," while in others (e.g., Mei et al. 2017; Luni and Gori 1978: fig. 3) they are referred to as "the baths found in 1968." ¹⁷¹ Although a forum and Augusteum are attested epigraphically and the location of the amphitheatre is suspected, only the baths and theatre are visible (Torelli 1982: 222).

¹⁷² Botticelli 2016: 755, fig. 1a and b. Measurement from Spanu 2014: 130. The date of these baths is debated. While most scholars place it early in the first century CE (e.g., Botticelli 2016: 755 and Romagnoli 2006: 64: first quarter of the first century CE; Gargana 1935: 42; Augustan), some push it later (Spanu 2014: 131: end of the first century CE to the beginning of the second; Torelli 1982: 222: Flavian). Date of theatre from Spanu 2014: 128 and Pensabene 1989: 2.

Ferentiensis). ¹⁷³ Across the street from the baths is a set of Julio-Claudian tabernae, ¹⁷⁴ which were built over an earlier cistern. ¹⁷⁵ Approximately 85 m west of the baths (in the *insula* to the west of the theatre) is a large cistern, and a further 15 m is a Julio-Claudian house. ¹⁷⁶

Herculaneum, Latium and Campania - regio I

Although the site has yet to be fully excavated (to date just over four *insulae* have been uncovered), three baths have been found and at least partially excavated at Herculaneum, a small *municipium* located approximately 14 km northwest of Pompeii on the Bay of Naples.¹⁷⁷ The first to be found, thought to date to the Augustan or Julio-Claudian era,¹⁷⁸ is located at *insula* VI, 1, 4-10, its west side fronting onto a lower *decumanus*. The bath occupies about half of *insula* VI, which it shares with residential structures, *tabernae* and the so-called "College of the Augustales" (approximately 10 m to the northeast), which Andrew Wallace-Hadrill suggests may actually be the *curia*.¹⁷⁹ A basilica (the "Basilica Noniana") has been uncovered in the northwest corner of the partially excavated *insula* VII, across the *decumanus maximus* from the baths (at a distance of approximately 55 m from the baths).¹⁸⁰ It is thought that the city's forum was in the

¹⁷³ Three of the baths four entrances opened onto this road (Botticelli 2016: 755, 757, figs. 1a and 1b; Spanu 2014: 130).

¹⁷⁴ Botticelli 2016: 753, n. 18, fig. 1b; Spanu 2014: 132; Romagnoli 2006: 64-65.

¹⁷⁵ Spanu 2014: 132.

¹⁷⁶ Spanu 2014: 133, 134. Measurements taken from Spanu 2014: figs. 17 and 21.

¹⁷⁷ A third bath was uncovered during the 1996-1998 excavation seasons, located in the so-called "Northwest *insula*," in which the House of the Dionysian Reliefs is also found (Cooley and Cooley 2014: 112). Unfortunately, the full extent of the baths is not known (not having yet been fully excavated) and therefore it is likewise unknown how it relates to the surrounding structures, or whether it is in fact a public *thermae*, or private *balnea*.

¹⁷⁸ Pagano (1996: 236) suggests that the baths could date to the Caesarian period and were later fed by the Augustan aqueduct, based on Maiuri 1958: 91.

¹⁷⁹ He notes that it was originally identified as such in the eighteenth-century CE and also points to the three graffiti found on one of the building's columns which refer to a *curia*, *curia Augustiana* and the *curia Augustana* as evidence for this conclusion (Wallace-Hadrill 2011: 178, 180).

¹⁸⁰ For the location of the Central/Forum Baths and the Suburban Baths and the identification and approximate distance of the buildings surrounding them see Dobbins and Foss 2007: Map 4.

unexcavated area to the northeast of the baths, leading scholars like Ann Olga Koloski-Ostrow to refer to the central bath complex as the "Baths of the Forum." ¹⁸¹

The town's second set of baths (the Suburban Baths), another Augustan or Julio-Claudian addition to the town, ¹⁸² is outside the city walls, near the southeast corner of the town, and on the ancient shoreline. It is east of and attached to the Terrace of M. Nonius Balbus (which was used as the bath's palaestra)¹⁸³ and south of the House of the Telephus Relief, which may have belonged to Balbus.¹⁸⁴ *Praetor*, proconsul of Crete and Cyrene, and a significant patron of Herculaneum, it is thought that M. Nonius Balbus was also responsible for the erection of the Suburban Bath, which may have been part of his home before being given over to public use.¹⁸⁵

A more recently discovered bath, dated to the first century CE, ¹⁸⁶ lies in the northwest sector of the city, approximately 110 m south of the Villa of the Papyri. ¹⁸⁷ Although the bath has not yet been completely unearthed, excavations have revealed stairs from it leading down to the

¹⁸¹ Koloski-Ostrow 2007: 243; 2015: 11. Also, Pagano 1996: 236 and Pappalardo and Manderscheid 1998: 174.

¹⁸² Pappalardo and Varriale date the original construction to this time period based on the use of *opus reticulatum* in the bath's construction (2006: 423). Pagano (1996: 236) also suggests an Augustan/Julio-Claudian erection date. The addition of bricks and use of the Fourth Style wall decoration indicate, however, that reconstruction took place in the Flavian period (Pappalardo and Varriale 2006: 423).

¹⁸³ Pappalardo and Manderscheid 1988: 173.

¹⁸⁴ Following Balbus' death, a statue (Herculaneum archaeological store, inventory n. 2075/77356) and funerary altar (Pagano 1988: 238 and Pagano 1996: 236) and were erected in the terrace. Many scholars believe that the house belonged to Balbus: Maiuri 1958: 347; Pappalardo and Manderscheid 1988: 173–190; Pappalardo and Varriale 2006: 423.

¹⁸⁵ Pappalardo and Manderscheid 1998: 173 and Pappalardo and Varriale 2006: 423. Guidobaldi (2012: 279-280) questions this conclusion. Ann Olga Koloski-Ostrow (2007: 246) argues that the bath's luxurious Flavian decoration likely meant that they were used by a higher paying clientele or by a private club.

¹⁸⁶ The incompleteness of the bath's excavations has made dating the entire complex difficult; however, the use of *opus reticulatum* and *opus testaceum* in the central pool building and Fourth Style decoration suggest a date in the last decades of the city's life (post-62 CE earthquake) (Guidobaldi et al. 2009: 123). The

¹⁸⁷ These Northwest Baths were partially excavated between 1996 and 1998 (Guidobaldi et al. 2009: 44). Measurement for the distance between the Villa of the Papyri and the Northwest Bath Complex taken from Dobbins and Foss 2007: Map 4.

sea through an area filled with pools, fountains, and gardens. ¹⁸⁸ Directly south of the bath complex, and separated from it by only a narrow gap, is the House of the Dionysian Reliefs. ¹⁸⁹

Velia, Lucania and Brutium – regio III

Velia, a *municipium* located on the coast of the Tyrrhenian Sea, about 30 km southeast of Paestum, has two known Roman baths, although the urban situation of only one (the Baths of the Southern District) can be discussed with any clarity. The Baths of the Southern District, were likely erected at the end of the first or beginning of the second century CE, and are located in the southern district of the city, which was largely residential. They sit at the point where the hill terraces of the upper district meet the flat plain of the lower district to the south and at the intersection of two major arteries: the main East-West Road (*Via della Terme*) and *Via Porta Rosa*, which connected and upper and lower levels of the city. The southern gate leading to the port sits 90 m southwest of the bat. An area thought to be the agora (or possibly an Asklepion 195) lies approximately 100 m to the north of the bath on one of the upper terraces of the hill. 196

¹⁸⁸ Wallace-Hadrill 2011: 163.

¹⁸⁹ The baths are in the so-called "Northwest *Insula*" (or *Insula* II) and the House of the Dionysian Reliefs is in *Insula* I (Guidobaldi 2011: 522, n. 11, Guidobaldi et al. 2009: 45). See Guidobaldi et al. 2009 for a full discussion of the residential and bath *insulae*.

¹⁹⁰ The other set of Roman baths are located the Vignale quarter of the town, east of the baths in the Southern District and date to the first century CE (Gassner 2018: 129). There is also a Hellenistic baths known from the site (See Greco and Di Nicuolo 2013: 113-130).

¹⁹¹ The lack of strategic evidence makes dating these baths difficult, however, Graneses et al. (2019: 486, 491) have suggested a date of the late first to early second century for the baths, based on the floor mosaics of the frigidarium and other elements. For a history of the dating of these baths, see Graneses et al. 2019: 482, 486; Vecchio 2007: 88-90.

¹⁹² *Insulae* I and III, south of the baths have been identified as residential while *insula* II has a public building, the so-called "Triportico" (Graneses et al. 2019: 482).

¹⁹³ Graneses et al. 2019: 481, 482, 488; Vecchio 2007: 91-2. See also Cicala 2013: fig. 1; 2017: fig. 1.

¹⁹⁴ See Cicala and Vecchio 1999: 67-72 for a discussion of the chronology of what they refer to as the "so-called agora".

¹⁹⁵ Tocco 1999: 61-65.

¹⁹⁶ Cicala 2013: fig. 1.

Cities and towns with no known formal status

Faesulae, Etruria – regio VII (modern Fiesole)

To date, only approximately three hectares of Faesulae, an Etruscan then Roman town five km northeast of and overlooking Florentia (Florence), has been excavated. ¹⁹⁷ The excavated area includes four structures: a section of the Etruscan city wall, the Roman theatre, an Etrusco-Roman temple, and a set of Roman baths. ¹⁹⁸ The three buildings are arranged in an isosceles triangle: the baths to the east, the temple to the northwest, the theatre to the southwest. The baths are terraced into the north slope of the hill and the Etruscan wall borders the bath's north side. ¹⁹⁹

Cumae, Latium and Campania – regio I

Both baths of Cumae, a costal Greek colony turned Roman city 19 km west of Naples, are located near the town's forum. The so-called "Central Baths" (originally identified as the "Temple of Sibyl")²⁰⁰ are approximately 150 m southeast of the forum, on the east side of the *Via Cuma–Licola*, with a stretch of the *Via Domitiana* on its northern side.²⁰¹ Unfortunately, not much else is known about the bath's surrounding area, and so it has not been included in the final count. This bath was originally built in the an Osco-Samnite period (third-second century BCE),²⁰² but was modified in Augustan times.²⁰³ Approximately 30 m north of the *Capitolium*

¹⁹⁷ Bellini delle Stelle et al. 1984: 33. This area is referred to as the archaeological zone or area of Fiesole in much of the literature on the site.

¹⁹⁸ The dating of the baths is debated. Estimates range from the time of Sulla (De Agostino 1954: 18) to the beginning of the Augustan age (Lugli 1957: 639-40; Sabelli 1995: 65) to the first half of the first century CE (Nielsen 1993a: 43-45). See Nocentini and Warden 2020: 150 for a discussion of the dating and full references.

 ¹⁹⁹ Nocentini and Warden 2020: 142, 144; Bellini delle Stelle et al. 1984: 33.
 ²⁰⁰ Volpicella 2006-2007: 197; McKay 1998: 235; Caputo 1996: 161.

²⁰¹ McKay 1998: 235; Caputo 1996: 161; Fears 1975: 4, 8. The *Via Domitiana* was only introduced at the end of the first century CE and it is not yet known how the baths and road interacted (Volpicella 2006-2007: 200). All measurements taken from Germinario et al. 2019: fig. 1a.

²⁰² Caputo et al. 1996: 107, 161, 162. This is dated by an Oscan inscription on a *labrum* found during excavations of the baths (See Volpicella 2006-7: 213, fig. 16 and Tocco 1975: 485-96). McKay (1997: 85) says that the Central Baths in their Roman form were the successor to an Oscan-Samnite Gymnasium.

²⁰³ Avagliano and Montalbano: 2018: 79; Caputo et al. 1996: 107. McKay (1997: 85; 1998: 236) put the baths' modification in the Flavian era, likely under Domitian.

that bordered the west side of the forum a second bath large bath complex was erected in the Hadrianic period.²⁰⁴ These are close to the intersection of two main roads: one runs north-south to the *Capitolium* and the other runs east-west along the northern side of the forum and *Capitolium* towards the northern gate and necropolis area.²⁰⁵ About 30 m to the north of the baths is a *castellum aquae*, making use of the pre-existing water-supply network of the city.²⁰⁶ To the west, less than 50 m away, is a public building of unknown function.²⁰⁷

Vicus Laurentium Augustanorum, Latium and Campania - regio I

In a letter to Gallus, Pliny the Younger mentions that the *vicus* near his villa (Vicus Laurentium Augustanorum), on the west Laurentian shore of Italy, southeast of Ostia, had three baths.²⁰⁸ To date, only two have been identified and excavated, both of which are clustered close to the forum and are much later in date than those mentioned by Pliny. Bath Z, partially excavated by Royal Holloway, University of London as part of the Laurentine Shore Project is thought to date to the mid second century CE and is located in an *insula* northwest of the forum.²⁰⁹ The second set of baths, the Forum Baths or *Thermae* A, are in the *insula* bordering the southeast side of the forum. Larger than the Bath Z, these baths were likely the result of the

²⁰⁴ Guardascione 2019: 123, 129; Caputo et al. 1996: 141. Fears (1975: 9, 10) and McKay (1998: 236) date the baths slightly later, to the reign of Antoninus Pius. Both dates are based on comparative stylistics and construction techniques and materials since no stratigraphic or dating elements were preserved from the initial excavations Guardascione 2019: 133).

²⁰⁵ Guardascione 2019: 123; McKay 1997: 85; Fears 1975. The streets are referred to as Street B and Street E in D'Agostino and D'Acunto 2009: fig. 11 and Volpicella 2006-2007: fig. 1.

²⁰⁶ Guardascione 2019: 123-4, 132; 2009: 313-318.

²⁰⁷ Guardascione 2019: 124.

²⁰⁸ Pliny *Epistulae* 2.17, 26.

²⁰⁹ Royal Holloway, University of London n.d. (https://intranet.royalholloway.ac.uk/classics/research/laurentine-shore-project/vicus-augustanus/home.aspx)

emperor Septimus Severus' patronage. 210 The insulae across the street from the forum and both baths are filled with houses, and a possible collegium.²¹¹

Saepinum, Samnium – regio IV (modern Altilia)

Saepinum, located at the crossroads of two important trails in south central Italy, has two baths, neither of which has been fully excavated. The earlier of the two (the *Thermae Silvani*), ²¹² end of the first century CE in date, ²¹³ is located at the northwest end of the forum on the decumanus maximus, surrounded by aulae, fountains, and a temple believed to be dedicated to Jupiter to the east.²¹⁴ The later second century CE baths are just north of the Bojano Gate, though which the decumanus maximus left the city to the west towards Boiano (Bovianum). Although not fully excavated, the bath has been found to rest directly on the inner surface of the western city wall at several points.²¹⁵ A castellum aquae located close to the internal courtyard of the Boiano Gate may have served these baths to the north.²¹⁶ The city's theatre lies about 35 m to the northeast of the baths and geophysical surveying in the now open area east of the baths has revealed the eastern extent of the known baths along the wall, in addition to three other buildings. The function of the two are unknown, however, the third and largest structure identified through geophysical surveying is proposed to be another large bath complex.²¹⁷

²¹⁰ Roval Holloway, University of London n.d. (https://intranet.royalholloway.ac.uk/classics/research/laurentineshore-project/vicus-augustanus/home.aspx). Bricks stamps and brickwork were used to date the bath's original construction to the Severan period (Claridge 1986: 72).

²¹¹ Hicks 1997: 99.

²¹² For a discussion of this bath and its attribute to the *Thermae Silvani* as mentioned in two inscriptions known from the site see Gaggiotti 1982: 106-110, especially 109.

²¹³ Cacciavillani 2019: 186. Gaggiotti (1982: 110) similarly suggests the end of the first or beginning of the second century CE for the construction of that baths but acknowledges that an Augustan date is also possible.

²¹⁴ Coarelli and La Regina 1984b: 210-211; Gaggiotti 1982:107, 108.

²¹⁵ Cacciavillani 2019: 186. Also, see Cozzolino et al. 2020: fig. 1b for the physical relationship of baths with the gate and wall.
²¹⁶ Coarelli and La Regina 1984b: 219.

²¹⁷ Cozzolino et al. 2020: 7-8, 10, fig. 8 and 9.

Herdonia, Apulia and Calabria – regio II (modern Ordona)

At Herdonia, a city located on the *Via Traiani* about 35 km inland from the coast of the Gulf of Manfredonia on the Adriatic Sea (Southern Italy), both known baths are located near the forum. The first, late Republican (first century BCE) in date, ²¹⁸ was on the northeastern side of the forum. A *piscina* lay ca. 15 m southeast of the bath and a contemporary campus-gymnasium another 5 m past this, lining the southeast side of the forum. A Roman basilica (built at the end of the first century BCE or the beginning of the first century CE) was 20 m to the baths' northwest on the northwest end of the forum. ²¹⁹ This bath went out of use when the forum area was reorganization and the *Via Traiana* introduced in 109 CE. ²²⁰ Likely as part of these large-scale renovations a second set of baths were erected, which occupied an entire *insula* ca. 65 m northwest of the forum-basilica and opened up onto the *Via Traiana*. ²²¹

Discussion:

The survey of bath placement in the twenty-four Romano-Italian cities included above has revealed that the most popular place for public baths in Italy was near the forum, with nineteen examples in fifteen towns.²²² Although only about two-thirds of the sites examined had a forum bath, every city in which there were multiple extant public baths (and where the position of the forum has been identified), there is a public bath complex near the forum.²²³ City gates or

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²¹⁸ Mertens and Volpe 1999: fig. 14

²¹⁹ See Mertens and Volpe 1999: 49-50 for discussion of the gymnasium and Mertens and Volpe 1999: 56-58 for the basilica. Measurements taken from Mertens and Volpe 1999: fig. 49.

²²⁰ Mertens and Volpe 1999: 23, 25, 69, 95; fig. 15, 49, 66.

²²¹ Leone 2008: 20; Mertens and Volpe 1999: 90, 95. Leone (2019: 197) dates the initial phase of the baths more generally to between 100-150 CE. Measurements taken from Mertens and Volpe (1999: fig.113).

²²² Fora often had certain buildings clustered around them – basilica, temple(s), civic buildings like the odeum, and shops of various types. Thus, when a bath is designated as a near a forum, it is also often near to a number of these associated building types. Only when a bath is located near one of these building types independently from the forum is it included the finally tally for that building type.

²²³ The sites with only one bath identified (or where the is only information about the urban surroundings for one bath) are also, not surprisingly, often those where the archaeological exploration and publication of the site is incomplete.

the edge of the settlement were another repeated location (eleven from ten sites) as were areas with heavy foot traffic (i.e., in areas with other public buildings, especially near theatres (seven) and temples or sanctuaries (seven)). Residential structures were also found near nineteen baths; however, only baths from Cosa, Fregellae, Pompeii, and Velia can be said (with any certainty) to be located in residential areas of the city. Similarly, commercial (e.g., tabernae) or industrial (e.g., workshops) buildings were found near nine baths, although only the Baths of the Swimmers at Ostia were located in an area that could be more broadly defined as commercial or industrial. Eight baths from seven different cities were found near a major intersection or opening onto an important thoroughfare of the city. Very few baths were located near natural water sources: only Herculaneum and Albingaunum. This paucity is perhaps not surprising since most of the sites examined are not on the coast, nor have a water course running through them. The other towns that did have a port or harbour (Ostia, Pompeii, Florentia, and Velia), had baths at the gates which welcomed visitors entering the city from the water. A total of seven baths were near man-made water sources, with four near a castellum aquae and three near a cistern. A full count of the baths and their locations are detailed located in Appendix I.

TARRACONENSIS, LUSITANIA, BAETICA (Spain and Portugal)

Initial Roman presence in Spain can be dated to the last quarter of the third century BCE, in the interval between the first two Punic wars, when Rome signed a treaty with Carthage (226 BCE) limiting the latter's power to the south of the Ebro River. This was followed by nearly 200 years of Roman military campaigns (after Carthage's withdrawal from the province in 206 BCE), until Augustus completed the conquest of the area with the Catabrian Wars (29-19 BCE). 224 After

²²⁴ Keay 1988: 44.

the Iberian peninsula largely came under Roman control in 206 BCE, they created two provinces: Hispania Ulterior (which comprises present day Andalusia, Extremadura, southern León, and most of modern Portugal) and Hispania Citerior (modern northern, eastern, and south-central Spain). Under Augustus Hispania Ulterior was further divided into Lusitania (Portugal and part of western Spain) and Baetica (Andalusia and southern Extremadura) while Hispania Citerior was renamed Hispania Tarraconensis. It is these Augustan provinces that will be used as geographical markers for the survey.

After Rome's annexation of this territory, Roman influence gradually spread throughout the region. Road networks were built to connect newly established Roman towns and forts across the landscape, all in an effort to break up the pattern of indigenous settlements and to create a centralized framework of government and help establish stability in the new provinces. However, the process of Roman urbanism and the introduction of a Roman-style architecture was met with varying degrees of acceptance and adoption. By the time of Augustus, for example, Strabo notes that the southern region of Spain (namely Baetica, 226 and the southern areas of Lusitania and Hispania Citerior) had already adopted many of the trappings of Roman culture:

The qualities of mildness and civil life have come to the Turditanians, less due to the Celts, for they mostly live in villages. The Turditanians, particularly those about the Baetis River, have completely changed to the Roman mode of life, not even remembering their language anymore. Most have become Latins, and they have received Romans as colonists, so that they are not far from being all Romans. And in the present synoecized cities, Pax Augusta [Béja] in the Celtic country, Augusta Emerita [Merida] among the

²²⁵ Keay 1988: 47, 52. A great number of different ethnicities (and their accompanying communities and tribes) comprised the Spanish population at the time of the Roman conquest, making the study of cultural change in Spain especially complicated (Broughton 1959: 645).

²²⁶ The area was home to the Turetani during the Carthaginian occupation of the area. With major settlements like Carmo and Carteia already having been extensively developed, it is no surprise that we find some of the earliest evidence for Roman urbanization in this area (including the founding of Italica and Corduba) (Keay 1988: 50).

Turduli, Caesar Augusta [Saragoza] near Celtiberia, and some other settlements, manifest the change to these civil modes of life.²²⁷

Central Spain, the heartland of Hispania Citerior, ²²⁸ and home to six different ethnic groups, was an area of great cultural and urban diversity. While the Lusitanians, living in western central Spain, were largely a semi-nomadic people, the Celteberians in the northern region of central Spain (along with the Iberians living on the north-east coast), were already living in urban settlements, ²²⁹ and it is in these areas (which where longest under Roman control) that we see the greatest level of the Roman style of urbanization and the granting of *municipium* status, especially in the Augustan period. ²³⁰ Finally, in the northwestern corner of Spain, the Romans faced more resistance, and there is no evidence for rapid urban development seen in other parts of the province. ²³¹ Portrayed by Strabo as "[u]ncivilized and savage [in] character," the indigenous tribes saw most of their settlements reduced to villages or were resettled at newly founded Roman centres like Bracara Augusta (Braga), Lucus Augusti (Lugo) and Iuliobriga (Retorillo). ²³²

There were three main types of urban settlement found in Spain during the Roman period. These include the *ex novo* towns founded and inhabited by Roman citizens (often, but not exclusively veterans), the *coloniae*, which were often located close to important indigenous settlements.²³³ The second type of town was the new indigenous settlements, sponsored by the

²²⁷ Strabo *Geographia* 3.2.15 (151 C), translation by H.J. Jones 1924. Strabo's observations are reflected in the epigraphic evidence; there is almost complete lack of indigenous deities in the inscriptions of Baetica and the East coast (Curchin 1986: 273).

²²⁸ And the southern part of what would later become Tarraconensis.

²²⁹ Laurence et al. 2011: 76.

²³⁰ Richardson 1996: 145.

²³¹ Richardson 1996: 145. The remoteness of the province along with the difficulty of the terrain may have also played a role is the area's including the presence of fewer Roman amenities (theatres, circuses, baths, etc.) known from this area (Wiseman 1956: 146).

²³² Strabo *Geographia* 3.3.8 (156 C), translation by H.J. Jones 1924.

²³³ There was a total of 23 *coloniae* founded in Spain during the Roman occupation: twenty-one were founded between the deaths of Caesar and Augustus, including nine in Baetica, eight in Tarraconensis and four in Lusitania, and another two in Tarraconensis later on (Keay 1988: 55). The 23 are: Emperion, Barcino, Tarraco, Valentia,

Roman settlers. Such towns include the previously mentioned centres at Bracara Augusta (Braga), Lucus Augusti (Lugo) and Iuliobriga (Retorillo),²³⁴ but also appear further south, as at Corduba.²³⁵ The third type was the existing indigenous/pre-Roman colonized town, many of which were given Latin status, with varying degrees of autonomy (*municipia*, etc.).²³⁶ Indeed, during his reign, Vespasian would grant Latin status to all indigenous 'urban' communities in Spain (inscriptions indicate at least 80 in total),²³⁷ which further encouraged the spread of Roman urbanism.²³⁸ In a number of instances of this type of town, upon the granting of *municipium* status, the previous settlement was demolished and re-settled in the Roman-style.²³⁹

While there are many known Roman baths from Spain, this survey has shown that their study is faced with many of the same challenges discussed for Italy. Many of baths have been incompletely excavated and published and/or have been excavated in isolation. Incidentally, studies of baths have also traditionally (and continue to) focused on architectural type rather than urban spatial relationships.²⁴⁰ The piecemeal excavations of the baths and their surroundings can often be connected to the large size of baths (making them expensive to fully uncover) and

Zaragossa, Celsa, Libisosa, Salaria, Tortosa, Clunia, Metellinum, Norva, Emertia Augusta, Italica, Carteia, Hasta Regia, Urso, Itucci, Ucubi, Seville, Astigi, and Tucci (Wiseman 1956: 51, footnote 1). How much of a role the veterans played in the province is a topic of some debate. Tsirkim (1989: 137-147), argues that their importance has been overestimated (for example by J.M. Blázquez 1964), instead preferring to look for the 'agents' of cultural change "in other layers of the Italian population," presumably the other Italian settlers who came to Spain he mentions in his article. Others, including A. Balil (1956), hold that it was the indigenous Spanish population, returning after time served in the Roman army who drove the changes in Spain, although again Tsirkim refutes this claim, arguing that the Spanish serving in the Roman army regularly stayed in their area of service upon retirement, rather than returning home (1989: 145-146).

²³⁴ Broughton 1959: 647.

²³⁵ This settlement was actually comprised of a mix of Romans and indigenous Turdetanians (Keay 1988: 50).

²³⁶ Keay 1988: 57.

²³⁷ Broughton 1959: 647; Keay 1988: 57. Pliny (*Naturalis Historia* 3.30) discusses Vespasian's grant of Latin status in Spain, and the municipal charters of Malaga and Salpensa confirm it (Broughton 1959: 647).

²³⁸ Keay 1988: 57.

²³⁹ Examples include: Baelo Claudia, Conímbriga, and Emporiae.

²⁴⁰ More recent examples include Pavía Page 2018 and Romero Vera 2020 (both very informative and important publications). Fortunately, many of the authors in the important 2019 volume *Le terme pubbliche nell'Italia romana* edited by Maura Medri and Antonio Pizzo (2019) provide a short overview of the urban situation of the baths they discuss.

modern building which limits available excavation space and even occasionally destroys the baths before they can be fully studied and published.²⁴¹ This can result in a reliance on older reports, which can be especially problematic when there is a question of whether the structure has been correctly identified as a bath.²⁴² There is also the issue of excavation bias. For example, although baths are widespread in Baetica,²⁴³ most have been found along the coast or in the Baetis Valley and date to the Flavian period or later.²⁴⁴

A total of twenty-six cities and towns were surveyed in Spain and Portugal (see Figure 7, below). Like Italy, the towns are organized first by town type (seats of the governor, *coloniae*, *municipia*, *civitas/conventus iuridicus* capitals, no known status), then north to south by province (Tarraconensis, Lusitania, and Baetica) and finally alphabetically within each province.

²⁴¹ DeLaine 2019: 549-550.

²⁴² Fear 1996: 184. Moreover, there is the added issue of determining whether a bath structure is public or private.

²⁴³ Fear (1996: 180) put the number of towns with evidence for a bathhouse at 29 in 1996.

²⁴⁴ Fear (1996: 185) questions whether this dating bias is the result of Vespasian's grant of the *ius Latii*, although acknowledges that the fragmentary and incomplete nature of these baths' study make this hypothesis difficult to prove.

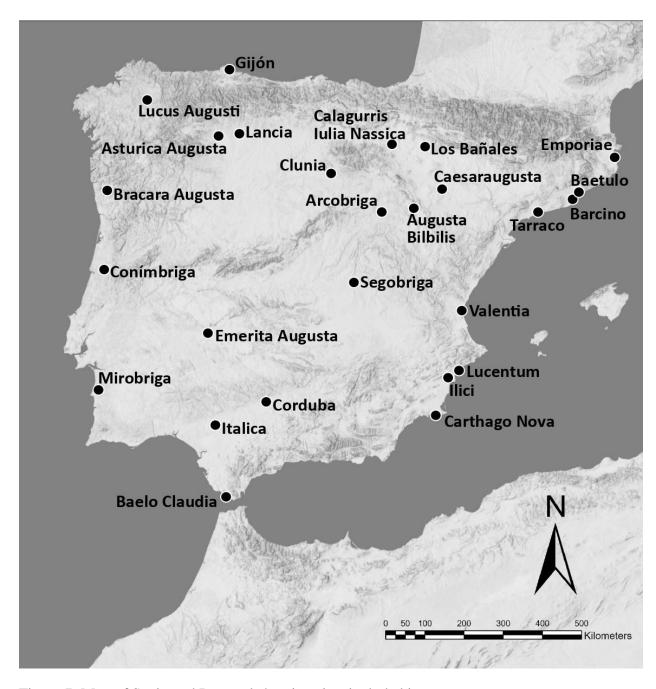


Figure 7: Map of Spain and Portugal showing sites included in survey.

Seats of the governor

Colonia Victrix Togata/Colonia Iulia Victrix Tarraconensis/Colonia Urbs Triumphalis Tarraco (Tarraco), Tarraconensis (modern Tarragona)

As of 2020, around 20 (mostly private) baths have been identified at Tarraco, a Roman *colonia* and seat of the governor located on the northwestern coast of Spain.²⁴⁵ Both baths identified in the literature as public structures are located in the so-called "lower town" of Tarraco, outside the Republican city walls in the port area. This extramural zone has been labelled as a "leisure area" as it also holds the city's theatre. The town's largest identified public baths, those on the modern Sant Miguel Street (The Maritime Baths), date to end of the second or the beginning of the third centuries CE²⁴⁷ and are located 100 m southwest of the (by that time disused) theatre in an area between the crest of the escarpment to the south and preexisting port roads to the north. ²⁴⁸ It is 120 m south of the *colonia* forum²⁴⁹ which lies inside the city walls. Another bath was found contiguous to the Sant Miguel Street Baths but on a different elevation (18 m above sea level compared to the 5 m of the Sant Miguel Street Baths) and are earlier (second half of the first century CE). ²⁵⁰ These baths, located on the modern Zamenhoff Street, have not been fully excavated and it is therefore unclear whether they are public or private and thus, are not included in the final count. ²⁵¹

²⁴⁵ Macias Solé 2020: 284, fig. 1; Macias Solé 2009: fig. 1 for bath locations; Macias Solé 2009: 544-50; 2013: 223.

²⁴⁶ Díaz García and Macias Solé 2004a: 188.

 $^{^{247}}$ Díaz García and Macias Solé 2004a: 186. The baths are estimated to be approximately 3000 m 2 (Macias Solé 2020: footnote 4). See Pavía Page 2018: 330-337 for description and bibliography.

²⁴⁸ Díaz García et al. 2000: 111; Díaz García and Macias Solé 2004a: 187; Macias Solé and Rodà 2015: 15. Number 7 on Anton Remolà and Ruiz de Arbulo 2002: fig. 1. All measurements taken from Macias Solé 2020: fig. 1

²⁴⁹ The city has two fora: the one in the "upper city" is Flavian in date, and the forum in the "lower city" was founded when the city became a *colonia* in the Augustan period (Dupré I Raventós 1995: 359, 363).

²⁵⁰ Macias Solé 2004: 30. See Pavía Page 2018: 342-344 for description and bibliography.

²⁵¹ Its small size, estimated to be around 240 m² (Macias Solé 2004: 27) may suggest a private function.

At a distance of 35 m to the east of the theatre, separated from it by the *cardo maximus* (modern Apodaca Street), is another hypocaust structure which has been identified as a public bath dating to the early imperial period.²⁵² It is south of the Republican walls, just north of the main waste collector, 125 m from the port, and 185 m northeast of the Sant Miguel Street Baths.²⁵³ The rest of the excavated baths are inside the city walls. One of these bath building another lies about 100 m south of the circus of the upper city,²⁵⁴ while another is located in the centre of the lower city.²⁵⁵ The other two are quite close to each other and the aforementioned Sant Miguel and Apodaca baths along with the theatre and colonial forum. One of the two is just inside the southern Republican Wall line, north of the Apodaca Street Baths, east of the theatre and colonial forum,²⁵⁶ and the final possible bath is just southeast of the colonial forum and north of the Theatre.²⁵⁷

Colonia Iulia Augusta Emerita (Emerita Augusta), Lusitania (modern Mérida)

As at Corduba (discussed below), the public bathing history of Emerita Augusta, the seat of the governor in Lusitania, located along the Anas River on the border between Lusitania and

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²⁵² Possibly Augustan (Macias Solé 2020: 285-6). This baths' proximity to the *cardo maximus*, theatre, and port, larger sewer collector, as well as its size hypothesized to be around 2500 m² indicate its public function (Macias Solé 2020: 285-6, footnote 3). See Pavía Page 2018: 344-347 for description and bibliography.

²⁵³ Macias Solé 2020: 285-286 and fig. 1. Macias Solé 2009: 544, 546; Díaz García and Macias Solé 2004b: 204. Number 15 on Anton Remolà and Ruiz de Arbulo 2002: fig. 1, Baths of Apodocoa Street.

²⁵⁴ The baths are located at number 9, Sant Agusti Street (Macias Solé 2020: fig. 1; Macias Solé 2009: fig. 1). See Pavía Page 2018: 337-339 for full description and bibliography.

²⁵⁵ Near the modern Méndez Núñez Street. Number 12 on Anton Remolà and Ruiz de Arbulo 2002: fig. 1. It is unclear whether this bath was public or private. See Macias Solé 2009: 543, 547-9 especially for a brief description of the evidence of this structure as a public bath and Macias Solé 2020: 284 for the opinion that they are private, perhaps because of their small size (15 x 20 m). These baths date to the first century CE (Pavía Page 2018: 339). ²⁵⁶ Identified as a public baths by M. Aleu in 1983 according to Anton Remolà and Ruiz de Arbulo 2002: fig. 1, Bath number 13.

²⁵⁷ Identified as a "Thermes and Gymnasium" by B. Hernandez Sanahuja as recorded by Anton Remolà and Ruiz de Arbulo (2002: fig. 1), this is the most dubious of the bath identifications and so is not included in the final tally. It is labelled as Number 14 on Anton Remolà and Ruiz de Arbulo 2002: fig. 1. Macias Solé (2009: 449) also makes mention of this hypothesized bath complex but does not include it as one of the 15 baths found at Tarraco (fig. 1). Neither of these 'baths' are included in the final tally for the province.

Baetica, is poorly understood. Although almost fifty baths have been identified,²⁵⁸ many are only partially uncovered (and limitedly published) making it difficult to determine their public or private function (when not in a domestic space).²⁵⁹ The most likely possibility of a public bath is a sparingly excavated monumental structure located on the aptly named Baños Street. It was attached to the south side of the contemporary (mid-first century CE)²⁶⁰ sacred enclosure on the eastern platform of the colonial forum (the so-called Portico of the Forum). The structure occupies a large area (up to 2200 m²) and while identified as baths by as early as the seventeenth century,²⁶¹ the structure was re-interpreted as a monumental entrance to the sacred precinct to its north beginning in the 1980s.²⁶² With only the northeast corner (1/12th) of the structure having been excavated, the issue has not been completely resolved; however, the likelihood of the structure being a public bath has once again gained traction in recent scholarship.²⁶³

Another six structures have been proposed as public baths in the literature of Emerita Augusta. Their interpretation, however, is not always straight forward: one may not be a bath, and some (if not all) of the other five may be what Barrientos Vera called "business baths": privately owned/erected businesses which were open to public clientele. About 300m southwest of the baths on Baños Street (at the intersection of Pedro María Plano and Calderón de la Barca streets), a large bath structure has been uncovered, which took up an entire block and opened onto the city's *cardo maximus* which ran between the central and western platforms of

²⁵⁸ Reis 2014: 55.

²⁵⁹ Finding a large public building like this has been made harder by the difficulty excavating under the modern city (Barrientos Vera 2018: 85).

²⁶⁰ Likely between the reigns of Claudius and Nero (Ayerbe Vélez et al. 2009: 748; Reis 2014: 61).

²⁶¹ Moreno de Vargas in his book *Historia de la ciudad de Mérida* (1633).

²⁶² Álvarez Martínez 1982. For a discussion of this structure's historiographic, excavation, and interpretation history see Ayerbe Vélez et al. 2009: 776-778 and Nogales Basarrate 2002: 97.

²⁶³ For example: Ayerbe Vélez et al. 2009: 778; Barrientos Vera 2018: 85; Reis 2014: 60-61.

²⁶⁴ Barrientos Vera (2018: 85) refers to six such bath businesses at Emerita Augusta, i.e., those open to the public but privately owned and operated for profit.

the colonial forum.²⁶⁵ It has, unfortunately, not yet been fully published,²⁶⁶ however, the monumental dimensions, location, and construction system of this bath (3,500 m²) suggested to the excavator (Ana Bejarano) that this was a public bath.²⁶⁷ Regrettably not much is known about the surrounding area and therefore it is not included in the survey. Another possible bath is that thought to lie at the intersection of the modern Pizarro and Maximiliano Macíason Streets, putting them approximately 300 m southwest of the theatre and 150 m southeast of the Pedro María Plano and Calderón de la Barca Street Baths. Unfortunately, these Pizarro baths were reburied, and their exact location lost; only a photograph on which they are labelled as public baths survives, and thus they too are not included in the final survey count.²⁶⁸

Another four baths have been found to the north and east of the city, outside the walls. Approximately 200 m to the southeast of the Reyes Huertas Street Baths (see below), a set of baths was found (mid first to second century CE), lying in a wealthy, suburban residential sector, now modern Pontezuelas Street. Like the Pedro María Plano and Calderón de la Barca Street Baths, this structure has not been fully published; however, mention of it as a bath occurs in a few recent articles. The baths furthest from the city are the second century Baths of San Lázaro located directly beside (east) of the aqueduct of San Lázaro and northwest of the circus. Finally, a fourth century CE bath was uncovered on the road that led to Caesaraugusta

²⁶⁵ Soriano 2010. All measurements taken from Osland 2016: fig.3.

²⁶⁶ Reis 2014: 65; See Soriano 2010 (https://www.hoy.es/v/20100923/merida/foro-tambien-tenia-termas-20100923.html) for a newspaper article on the excavation.

²⁶⁷ Reis 2014: 65; Soriano 2010.

²⁶⁸ Reis 2004: 86.

²⁶⁹ Morgado Portero 2004: 6.

²⁷⁰ Reis (2014: 66) and Morgado Portero (2004: 6) labelled it a public bath, while Barrientos Vera (2018: 85) categorized it as one of the six known bath businesses in Emerita Augusta (i.e., privately owned but open to the public). These baths are also referred to as the Termas de Resti/Baths of Resti after the ham factory that was built in the area (Reis 2014: 66; Morgado Portero 2004: 6).

²⁷¹ Reis (2014: 66) suggests that this bath likely served those using the circus and commuters to/from the city. No plan is available for the bath.

and Corduba, in an area that was used as a funerary space between the first and fifth centuries CE. ²⁷²

The "baths" at No. 15 Reyes Huertas Street were located in a residential area, 300 m northwest of the amphitheatre and theatre, which were located next to each other in the southeastern area of the city. The function of this structure as a bath is not secure. In his 2004 analysis of the structure, Hernández Ramírez called it a "public baths." Reis, while labelling them "private (?)" in a 2004 publication, by 2014 is dubious about their identification as a bath at all. ²⁷³ In a 2006 article M. Alba argues that that structure was initially an industrial complex for the production and storage of snow and ice, on the upper floor of which a bath was integrated. ²⁷⁴ This uncertainty has resulted in their exclusion from the final tally of the present study.

Colonia Patricia (Corduba), Baetica (modern Córdoba)

Located along the Baetis River, Corduba was a colony (*colonia Patricia* - a title granted by Caesar), the capital of the *conventus* Cordubensis, and the seat of the governor in the Roman province of Baetica. As at Emerita Augusta, the bathing history of this town is poorly understood. Twelve baths have been identified throughout the city, but none have been thoroughly studied or published,²⁷⁵ making it difficult to identify their function (i.e., public or private) or discuss their location within the city, relative to other known structures. Therefore, only three baths, about which the most has been documented, have been included in this survey. The first to be considered are the large Julio-Claudian baths which lie north and across the street from the colonial forum (on the modern José Conde Cruz Street), 40 m west of the *cardo*

²⁷² Vargas 2006: 5. They are located on modern Cardero Street. As the baths are dated to the fourth century, they have not been included in the final count.

²⁷³ Hernández Ramírez 2000: 59-88; Reis 2004: 82; 2014: 64.

²⁷⁴Alba 2006: 429-470.

²⁷⁵ Vaguerizo Gil 2018: 93.

maximus.²⁷⁶ The next baths, at no. 8, Duque de Hornachuelos Street, are located in the middle of a residential area of the eastern sector of the town, 200 m southeast of the *Forum Novum* and 285 m north of the theatre.²⁷⁷ Only the *natatio* has been documented of the final baths being considered, which bordered the south side of the *decumanus maximus* (modern Concepción Street), 100 m east of the northwestern gate that lead to the extramural amphitheatre and 250 m west of the *Forum Novum*.²⁷⁸

Coloniae

Caesaraugusta, Tarraconensis (modern Zaragoza)

The Augustan colony and *conventus* capital of Caesaraugusta, located on the Ebro River in Northeast Spain, has evidence of six bath structures; however, only one has been fully explored and confirmed through excavation. This bath, the Central or San Juan and San Pedro Street Bath, was built in the Augustan period between the forum and theatre, ²⁷⁹ 100 m southeast of the main intersection of the city. ²⁸⁰

The rest of the bath remains are much less well understood. There is possible late first century CE bath that was excavated approximately 170 m to the east of the forum in the northeast corner of the Roman city, now modern Sepulcro Street.²⁸¹ A commercial area separated

²⁷⁶ Although identified by the original excavator Santos Gene as public baths, other scholars have suggested functions ranging from a privately owned public baths to a private domestic or collegium *balneum* (Ruiz-Bueno and Potrillo Gómez 2020: 138). All measurements taken from del Mar Castro García 2016: fig. 3.

²⁷⁷ The ownership of these baths is unclear; however, they are thought to have been open to the public. The bath's date of construction is also unknown, however, some of the sculptural program found suggest that it was in use during the Hadrianic period (Ruiz-Bueno and Potrillo Gómez 2020: 130, 138).

²⁷⁸ del Mar Castro García 2016: 286 and fig. 3. The size of the *natatio* (4.4 m wide, 1.4 m high, and at least 13 m long – Hidalgo 2008: 267) indicates that the baths were for public rather than private use.

²⁷⁹ The theatre and the colonnaded public space out front were approximately 20 m south of the baths and the forum and temple enclosure approximately 100 m to the bath's north (Galve Izquierdo 2004: 17). See Pavía Page 2018: 654-657 for description and bibliography.

²⁸⁰ All measurement taken from Galve Izquierdo 2004: 17.

²⁸¹ Unfortunately, the baths were never full excavated and then later destroyed. See Pavía Page 2018: 660 for description and bibliography.

it from the forum and the third century city wall (approximately 5 m to its north) separated it from shore of the Ebro River. Another, the early second century CE Santa Marta Street Baths, is just southwest of the third century city wall, although nothing else is known about its environs. ²⁸² Bath remains were also noted northwest of the theatre (the Ossau Street Baths, around Méndez Núñez Street), ²⁸³ as well as in the western section of the city (modern Prudencio Street). ²⁸⁴ Outside the city boundaries was a bath on the modern Cinco de Marzo Street that is Flavian in date. It lay only a short distance west of some hypocaust remains in the Plaza de España. In fact, their proximity and shared alignment may indicate that they belong to the same large building. ²⁸⁵

Colonia Clunia Sulpicia (Clunia), Tarraconensis (modern Peñalba de Castro)

The *ex novo* colony and *conventus* capital of Clunia, in north-central Spain on the road that led from *Caesaraugusta* to *Asturica Augusta*, has three known public baths: the Forum Baths and the Los Arcos Baths I and II. The Forum Baths sat approximately 20 m east of the southern section of the forum, separated from it by two houses, the Triangular House and House 3, with which it shared a wall and orientation.²⁸⁶ The Los Arcos Baths sit together (although on different orientations)²⁸⁷ northeast of the forum area, about halfway between it and the theatre

²⁸² Galve Izquierdo 2004: 17. Pavía Page (2018: 658) suggests that their central location and lack of surrounding houses indicate public ownership or use. See Pavía Page 2018: 657-659 for description and bibliography.

²⁸³ Like the Sepulcro Street remains, these baths were also destroyed in modern times (Beltrán Lloris 1996: 114, n.

²⁸⁴ These do not appear to have been ever fully excavated (Beltrán Lloris 1996: 114, n. 123).

²⁸⁵ Gutiérrez González (2006: 365) is cautious in this hypothesis. See Pavía Page 2018: 660-662 for description and bibliography.

²⁸⁶ Pavía Page 2018: 677. Measurements taken from Cuesta et al. 2019: fig. 4B. The character of this bath is not yet certain: sharing, as it does, a wall with House 3, de Palol (1994: 69) has suggested that the baths were domestic. Its location, size (at 460m2, big for a private bath), and access (opens onto a *cardo* leading to the forum and does not share access with the house), seems to suggest a public function (Pavía Page 2018: 679). The baths were supplied by an aqueduct (Panzram 2013: 1947), which may also suggest a public function. Fernández Ochoa and García-Entero (1999: 143-144) have put forth the possibility that it is semi-private. The baths' date of construction is also uncertain but may date to the first half of the first century CE (Pavía Page 2018: 679) or the second half of the first century CE (Núñez Hernández 2008: 189). See Pavía Page 2018: 677-681 for description and bibliography.

²⁸⁷ The Los Arcos Baths II shares its orientation with the porticoed *decumanus* to its south while Los Arcos I is rotated about 45°, matching the orientation of House 3 to the southeast (west of the forum) (Arroyo Miguel 2020:

sector about 250 m to the east. Both also lie on the north side of the porticoed *decumanus* that connected the area north of the forum with the theatre; another porticoed street lay between them.²⁸⁸ The close proximity of these two baths and their roughly contemporary usage²⁸⁹ can be explained, at least in part, by the presence of underground aquifers that run directly underneath them and provided them directly with water.²⁹⁰

Colonia Iulia Augusta Faventia Paterna Barcino (Barcino), Tarraconensis (modern Barcelona)

Barcino, an Augustan *ex novo* colony, located on the coast of Tarraconensis, 82 km northeast of Tarraco, has four extant public baths, although only three are included in this survey.²⁹¹ The two earliest baths are roughly contemporary (late first century CE) and seem to have been erected to meet the needs of the extramural port area in which they are located. ²⁹² Both sets of baths were adjacent the southern Augustan city wall and flank the same gate (the *Porta Decumana*) through which the *decumanus maximus* exited the city towards the port; one

^{86).} Los Arcos Baths I is the larger of the two at approximately 5225 m^2 and Bath II at 1232 m^2 (Pavía Page 2018: 681, 682, 686).

²⁸⁸ Arroyo Miguel 2020: 57. This second street shared its orientation with Los Arcos I; Los Arcos II meet it at an oblique, roughly 45°, angle (Arroyo Miguel 2020: fig. 50).

²⁸⁹ Los Arcos I is dated to the Tiberian period. The erection date of Los Arcos II is less secure but seems to have been in use by the end of the first century CE (Núñez Hernández 2008: 173, 175, 189). See Pavía Page 2018: 681-690 for description and bibliography for the Los Arcos Baths.

²⁹⁰ Arroyo Miguel 2020: 57. This karst cave system is thought to have supplied water to the entire site (Cuesta et al. 2019: esp. 128, 128, figs. 4 and 6).

²⁹¹ The fourth baths have been excluded from this survey because of their connection to the episcopal complex of Barcino and late date (sixth century CE). (Miró i Alaix 2014: 879-880).

²⁹² Miró i Alaix 2014: 880, 882. The contemporary date and location of these baths has led to the suggestion that they served the different genders: the east was used by women and the west by men (at least until the East baths' destruction in the second half of the third century CE (Miró i Alaix 2014: 881, 882).

set of baths sat on the east side of the road and gate, ²⁹³ and the other thermal complex lay to the west with a distance of approximately 15 m between them. ²⁹⁴

The early second century CE Plaza of Sant Miguel Baths, ²⁹⁵ although not fully excavated, appear to have taken up an entire *insula* in the centre of the town, the northwestern end of which met the *cardo maximus*. ²⁹⁶ What lay in the *insula* on the other side of the *cardo* is debated: some scholars have placed the southwestern half of the forum here (separated from the northeastern half by the *decumanus maximus*), and possibly the *curia*. ²⁹⁷ A 2014 article by Orengo and Cortés, however, argues that the forum was confined to a large *insula* the southern corner of which was at the intersection of the *cardo* and *decumanus maximi* (i.e., in the northeastern half of the larger proposed forum). They suggest instead that the southwestern half (the one across the *cardo maximus* from the baths) may have instead had a commercial function. ²⁹⁸ A possible

²⁹³ See Pavía Page 2018: 270-275 for description and bibliography.

²⁹⁴ See Pavía Page 2018: 275-279 for description and bibliography. Measurement taken from Beltrán de Heredia 2015: fig. 1. A circus mosaic belonging to a caldarium lies just under 50 m to the West of the West Baths (also sometimes called the Castellum Baths). The size and richness of the mosaic has led some to suggest that it is a part of a public bathhouse (Miró i Alaix 2014: 879-880), possibly even a part of the West/Castellum Baths. (Orengo and Miró i Alaix 2013: n. 8). If this is the case, the caldarium with the circus mosaic, dated to the fourth century (Cases et al. 2021: 746 (23), would have had to have been part of a renovation and expansion to the West Baths after they had been incorporated into the city via a square extension of the wall (the "Castellum") in the third century. ²⁹⁵ Inscriptions (CIL II.4509 = 6145 and CIL II.4514/ IRC IV.30 and IRC IV.34) found near the baths naming the dedicators as a L. Minicius Natalis and his son, indicate second century CE date (Mar et al. 2012: 94, 98, 99), perhaps around 125 CE (Rodà 2016: 265). See Pavía Page 2018: 280-287 for description and bibliography. ²⁹⁶ Although only the southwest corner of this *insula* has been excavated, the excavators believe the bath to have filled the entire block, with the end abutting onto the cardo maximus filled with commercial buildings and the palaestra and pool behind (Mar, Garrido, and Beltrán-Caballero 2012: 98, 99, fig. 18). The size of the bath's insula, however, differs among scholars. In her diagram of the city, Beltrán de Heredia (2015: fig. 1) has illustrated the northern corner of the bath's insula at the intersection of the cardo and decumanus maximi, whereas Mar et al. (2012: fig. 2, 7) have split this insula into two and have the bath occupying the western insula (one removed from the main intersection). Neither indicate what lay to the east of the baths.

²⁹⁷ Beltrán de Heredia 2015: 210, 211, fig. 1; Rodà 2016: 262.

²⁹⁸ Orengo and Cortés 2014: 100-104. The possible commercial function of this space is suggested based on the presence of *tabernae*. No date is given for these *tabernae*. See Orengo and Cortés 2014: 89-107 for a discussion of the possible forum orientations. Mar, Garrido, and Beltrán-Caballero (2012: fig. 13) also present a different possible view of the forum than Beltrán de Heredia 2015: fig. 1. While their forum still extends across the *decumanus maximus*, it is one *insula* shorter than Beltrán de Heredia's, meaning that on their city plan, the baths *insula* does not face the forum across the *cardo maximus*. It instead faces an *insula* in which *tabernae* have been found. No date is given for these *tabernae*, and so it is unclear how the *curia* that Beltrán de Heredia (2015: 210, 211, fig. 1) suggests lies in a similar position to these *tabernae* relates to them chronologically or stratigraphically, or how these shops might relate to the forum.

temple has been identified in the *insula* across the *decumanus maximus* from the baths (approx. 55 m) and a large peristyle domus and industrial structures in the *insula* to the southeast.²⁹⁹

Colonia Iulia Ilici Augusta (Ilici), Tarraconensis (modern La Alcudia de Elche)

Colonia Iulia Ilici Augusta, an inland city 10 km off the southeastern coast of Spain between Lucentum and Carthago Nova, has two baths, the East and West Baths. Both have been suggested to date to the first century CE, perhaps the Flavian era. The West baths were placed on the western edge of the city with another possible bathhouse to the north. Excavations have revealed that the West Baths not only rode the line of the Augustan city wall (sections of which have been found in soundings south of the West Baths) but the bath encompassed a section of it as part of its foundation. This essentially extended the intramural space of the city. To the bath's east lay the so-called "central area" and to the north lay an area of "Iberian houses" in which a caldarium was built during the first century CE. The urban situation of the East Baths is less well understood, as much of the urban morphology of the city remains unexplored. The baths' rooms are on different elevations to fit the topography of the location, which is the highest part of the city. The baths extended east towards the path of the Via Augusta (the modern Borrocat Road), which suggests to the excavators (alongside the cobbled roads and structures

²⁹⁹ Beltrán de Heredia 2015, fig. 1; Mar, Garrido, and Beltrán-Caballero 2012: 98, fig. 17,

³⁰⁰ Tendero Porras and Ronda Femenia (2014a: 239) places the construction of both baths in the Flavian era, while and earlier article by Ramos Molina and Tendero Porras (2000: 245, 248) suggests that the East baths were built in the first half and the West Baths in the second half of the first century CE. Fernández and Molina (2007: 554) place the east baths much earlier in the second century BCE.

³⁰¹ Tendero Porras and Ronda Femenia (2014a: 228, 240). See Pavía Page 2018: 400-402 for description and bibliography.

³⁰² Tendero Porras and Ronda Femenia 2018: 74; Tendero Porras and Ronda Femenia 2014a: 237, 238, 239; Ramos Molina and Tendero Porras 2000: 248, 249. The baths were approximately 1600 m² (Pavía Page 2018: 400).

³⁰³ One of the structures has been identified as a pottery store (Tendero Porras 2012: 2 from Sala Sellés 1992)

³⁰⁴ Tendero Porras and Ronda Femenia 2014b: 305-306; Tendero Porras 2012: 2, 4.

³⁰⁵ Excavations have revealed about 570 m² of this bath (Pavía Page 2018: 404). See Pavía Page 2018: 404-409 for description and bibliography. Because not much is known about the bath's immediate vicinity (see Aranegui 2011: fig. 6), they have not been included in the final count.

found to lie between the baths and Borrocat Road) that the city extended in that direction.³⁰⁶ Moreover, excavations along the Borrocat Road have revealed Roman burials, which suggests that the eastern limit of the city lies somewhere between the baths and this road.³⁰⁷ This, and their elevated topographical position gives these baths, their excavators argue, a "prominent and 'centered' place within the colony,"³⁰⁸ despite being a considerable distance southeast of the 'central area.'

Colonia Victrix Iulia Nova Carthago/Colonia Urbs Iulia Nova Carthago (Carthago Nova), Tarraconensis (modern Cartagena)

The Ceasarean colony of Carthago Nova (modern Cartagena), on the southeast coast of Spain, has two extant public baths,³⁰⁹ both constructed during the Augustan re-development of the city. The Forum Baths are approximately 15 m east of the forum,³¹⁰ between the *curia* to the north and the headquarters of the Augustales to the south. The second baths were built in the late Augustan or early Tiberian period at the foot of the Cerro del Molinete Hill in *insula* I (along modern Honda Street)³¹¹ giving it direct access to water from the *castellum aquae* at the southwestern end of this hill. It shared an *insula* with the "Atrium Building"³¹² and opened (on

³⁰⁶ Tendero Porras 2015: 129; Tendero Porras and Ronda Femenia 2014a: 239.

³⁰⁷ Tendero Porras and Ronda Femenia 2014a: fig. 1; 2014b: fig. 1, 286; Aranegui 2011: fig. 6.

³⁰⁸ Tendero Porras and Ronda Femenia 2014a: 239.

³⁰⁹ A third possible public bath has been found in *insula* IV on the southwestern slope of the Cerro del Molinete Hill, about halfway between the Port/Honda Street Baths and the Forum. Not enough of the baths has been excavated however, to say whether it is public or private, although it does not appear to have been part of a house (Pavía Page 2018: 63). See Pavía Page 2018: 505-508 for description and bibliography.

³¹⁰ This measurement is very approximate as the bath has not been fully excavated. All measurements for Carthage Nova taken from Noguera Celdrán et al. 2009: plan 1. The baths are approximately 620 m² and date to the Augustan period. See Pavía Page 2018: 500-505 for description and bibliography.

³¹¹ There baths are sometimes referred to as the Forum Baths (see Madrid et al. 2009) or the Port Baths (Noguera Celdrán and Madrid Balanza 2014: 41). They were approximately 1200 m² (Pavía Page 2018: 69, 81). See Pavía Page 2018: 57-252 and 488-499 for description and bibliography.

³¹² This late Republican building has been interpreted as a Banketthaus or a building for banqueting, possibly associated with a religious or commercial group (Noguera Celdrán and Madrid Balanza 2014: 39, 40).

its south side) onto one of the city's main *decumani*, which led from the port to the forum.³¹³ The city's theatre lay 215 m to the south.

Emporiae, Tarraconensis (modern Ampurias/Empúries)

Emporiae, a Roman *colonia* and *municipium* settled on the northeastern coast of Spain, has two known sets of public baths. One set is located in *insula* 30 in the eastern part of the walled Roman town. The baths are 75 m north of the forum, ³¹⁴ and separated from the eastern city wall by houses no. 1 and 2A. ³¹⁵ The baths were entered on their west side off of *Cardo* B, one of two major *cardines* that funneled people north around the forum. ³¹⁶ By the first half of the second century CE, the baths took up over half of *insula* 30; ³¹⁷ to the south was a public latrine and various commercial *tabernae*. ³¹⁸ The other bath is in the Greek-founded colony of Neapolis, which lies between the Roman city and the coastline. ³¹⁹ The baths' Roman phase is Augustan in date and they are located just behind (and north of) the eastern half of the Hellenistic stoa that bordered the north side of the town's agora. ³²⁰

³¹³ Madrid et al. 2009: 91, 93. These baths lay mid-way between the two important city areas, 110 m east of the port and 125 m west of the forum.

³¹⁴ Measurement taken from: Laurence et al. 2011: fig. 1.5. The *insula* in which the baths lie is adjacent to the northern corner of the forum (Castanyer i Masoliver et al. 2002: fig. 1). The bath is approximately 1100 m² and is thought to date to the first century CE (Pavía Page 2018: 313, 318). See Pavía Page 2018: 313-319 for description and bibliography.

³¹⁵ Aquilué 2006: 19; Aquilué et al. 2006: 204; Castanyer i Masoliver et al. 2002: 243.

³¹⁶ As the *cardo maximus* ended at the south end of the forum, people continuing to travel north has two choices: take *Cardo B* along the east side of the forum which leads to the baths or take *Cardo D* on the west side of the forum. Once past the forum people could return back to the main *cardo* (Castanyer i Masoliver et al. 2002: 255). ³¹⁷ The earliest stratigraphic evidence for this bath dates to the Flavian period, however, this may come from a remodelling phase and not the original construction (Castanyer i Masoliver et al. 2002: 246).

³¹⁸ The specific uses of these spaces (aside from one tavern or *popina*) have not yet been identified (Aquilué et al. 2006: 205, 206, 211). These *tabernae* replaced a late Republican (first century BCE) domus in the first century CE (Aquilué 2006: 20; Aquilué et al. 2006: 211).

³¹⁹ Together with Palaiopolis (the 'old town'), Neapolis (the 'new town') formed the Greek colony of Emporion. These two were combined with the new Roman settlement to the west to create the Roman *municipium* Emporiae. ³²⁰ Aquilué et al. 2006: 205; Vivó and Palahí 1995: 83; fig. 13. The baths' first phase belongs to the second century BCE and were renovated in the Augustan period and measured approximately 560 m² (Pavía Page 2018: 310). See Pavía Page 2018: 306-312 for description and bibliography.

Valentia Edetanorum, Tarraconensis (modern Valencia)

Valentia, a Latin colony founded on the eastern coast of Spain along the *Via Augusta* between Tarraco and Lucentum, has one of the earliest Roman baths in Spain. It dates to around the time of the colony's founding in 138 BCE and is located in the public centre of the city. ³²¹ Situated at the intersection of the *cardo maximus and decumanus maximus*, the baths are located across the street from the Sanctuary of Aesclepius to their east and a granary/horrea in the *insula* to their north. They share an *insula* with administrative *tabernae* which opened onto the southeastern end of the forum. ³²² This bath and the sanctuary next to it may have made use of the natural springs in this area since, during their use, the city was not yet furnished with an aqueduct. ³²³

There are a further three public baths that served Valentia, the first two of which belong to the period of rebuilding beginning in the first century CE, following the city's destruction by Pompey's troops in 75 BCE. The earliest are the Cabillers Street Baths (dated to 30-40 CE), which are located in an area of expansion to the south of the original Republican town that includes the circus, just over 125 m to their east. The old paleochannel of the Turia River ran just south of these baths and may have been one of the bath's water supplies. The late first

³²¹ Marín Jordá and Ribera i Lacomba 2010: 9; Olcina Domenech 2007: 134. The baths are approximately 540 m² (Pavía Page 2018: 368). See Pavía Page 2018: 368-375 for description and bibliography.

³²² Jiménez Salvador et al. 2013-2014: 19; Aranegui 2011: 15; Olcina Domenech 2007: 134; Marín Jordá and Ribera i Lacomba 2000: 151, 154.

³²³ Aranegui 2011: 15; Marín Jordá and Ribera i Lacomba 2000: 155.

³²⁴ Jiménez Salvador et. al. López 2013-2014: 24. The public or private nature of these baths is debated. Pavía Page (2018: 375) suggests that they were part of a domestic space (perhaps because of their small size – 280 m²) while Jiménez Salvador et al. (2013-2014: 25) argues they are public and were converted into a house at the end of the first century CE. See Pavía Page 2018: 375-380 for description and bibliography.

³²⁵ Jiménez Salvador et al. 2013-2014: 24; Machancoses López 2015: 574. All measurements take from Jiménez Salvador et al. 2013-2014, fig. 5. Although the published plans of this city can appear detailed, the original Roman street plan is almost gone, largely because of an Islamic occupation on the site (Ribera i Lacomba 2006: 82).

³²⁶ Machancoses López 2015: 577.

century CE³²⁷ Tapinería Street Baths were outside the imperial expansion of the town, next to the Turia paleochannel and about 100 m west of the southern course of the *Via Augusta*. They may therefore have served guests travelling along this road or perhaps a new neighbourhood that was created during this period of renewal and growth.³²⁸ The next baths (Salvador Street Baths or Baths of the Palace of Benicarló) were not built until well into the second century³²⁹ and are located on the east side of the *cardo maximus*, one *insula* (about 50 m) removed from the north gate through which the *Via Augusta* entered the city (becoming the *cardo maximus*).³³⁰ Finally, there is a hypocaust structure, provisionally identified as another bath, in one of the northernmost *insula* of the port area of Valentia.³³¹

Colonia Aelia Augusta Italica (Italica), Baetica (modern Itálica)

The first Roman colonial foundation in Spain, Italica lies in the middle of Baetica, midway between Emerita Augusta to the north and Baelo Claudia to the south. It has two known public baths, one in the so-called "vetus urbs" and one in the Hadrianic "nova urbs." Thought to date to the Trajanic period, the smaller of the two baths lies in the older part of the city (the vetus urbs). Unfortunately, excavation has been inconsistent, and therefore not much is known about the urban layout of this part of the city. The forum is thought lie to the southeast of the baths, although how far away is difficult to tell given that the exact parameters of the forum are not certain. The four-insulae-large Hadrianic baths lay to the northwest of the Bath of Trajan

³²⁷ Jiménez Salvador et al. 2013-2014: 25; Machancoses López 2015: 578. 900 m² of the baths has been so far revealed (Pavía Page 2018: 380).

³²⁸ Pavía Page 2018: 283. See Pavía Page 2018: 380-386 for description and bibliography.

³²⁹ Jiménez Salvador et al. 2013-2014: 27.

³³⁰ See Pavía Page 2018: 386-389 for description and bibliography.

³³¹ Jiménez Salvador et al. 2013-2014: 30. See Pavía Page 2018: 389-390 for description and bibliography. This bath is not included in the final tally.

³³² These names were given to the two halves of the town by Garcia y Bellido (1960).

³³³ Hidalgo 2003: 96-7. Hidalgo places the baths and forum area approximately 60m apart (2012: fig. 2). Because there is still so much uncertainty about the bath's surroundings, it has not been included in the finaly count.

in the west of the expansion of the city that took place during the reign of Hadrian. This new area was largely residential, ³³⁴ although a *Traianeum* lay 100 m to the southeast of the baths. ³³⁵

Municipia

Arcobriga, Tarraconensis (modern Monreal de Ariza)

On the right bank of the Jalón River, southwest of Caesaraugusta, the Flavian *municipium* of Arcobriga has one extant bath, dated to the first half of the first century CE and located on the north-western slope of the Cerro Villar Hill. This hill is divided by two sets concentric rings of walls; the baths along with other public buildings (e.g., forum, basilica) are located on a plateau within the second ring. The baths sit on the northwestern slope of the hill and the northern city gate lies to the northeast of the baths.

Augusta Bilbilis, Tarraconensis (modern Cerro de la Bámbola)

Located on the slope of the Cerro de Bambola locality, northwest of and overlooking the town's theatre and forum is the sole extant bath of Augusta Bilbilis, a Roman *municipium* (and the birthplace of Martial), located approximately 80 km southwest of Caesaraugusta.³³⁹ The baths are separated by a road from of a domestic *insula* to the south that held four houses.³⁴⁰

³³⁶ Gonzalo Monge 2016: 432, 435; Caballero Casado and Jiménez Sanz 2002: 44; Beltrán Lloris 1987: 53. The bath is of Republic type, and the lack of *tubuli/*hollow bricks in its construction indicates that the bath likely came before 62 CE, when these building materials began to be used in bath construction (Beltrán Lloris 1987: 53). Nolla (2000: 54) suggests an Augustan date as the earliest possible for the baths. The baths have a total area of 695 m² (Pavía Page 2018: 631). See Pavía Page 2018: 630-635 for description and bibliography.
³³⁷ Lostral Pros 1980: 202, 203.

³³⁴ Hidalgo et al. 1999: 79-80, 88. The so-called "House of David" lay directly across a *cardo* from the bath block (Hidalgo et al. 1999: Plano n.° 2).

³³⁵ Measurement from Hidalgo 2012: fig. 2.

³³⁸ Unfortunately, the plan (Caballero Casado and Jiménez Sanz 2002: fig. 3) on which the position of the baths is marked has no scale with which to determine the distance from the baths to the gate.

³³⁹ The forum is about 220 m southeast of the baths and the theatre, approximately 140 m (Measurements from Curchin 2004: fig. 4.5)

³⁴⁰ The baths date to the reign of Tiberius or Claudius (Martin Bueno 1975: 318) and are 520 m2 (Pavía Page 2018: 649). The domus closest to the public baths had a roughly contemporary private bath of its own (Martín-Bueno et al. 2007: 223). See Pavía Page 2018: 646-651 for description and bibliography.

Hypocaust *pillae* were found by excavators on the hillside of San Paterno (east of the known baths) which may belong to another bath.³⁴¹

Calagurris Iulia Nassica/Calagurris Nassica Iulia, Tarraconensis (modern Calahorra)

Two (possibly three) public baths have so far been identified serving the *municipium* of Calagurris Iulia Nassica (Calahorra), located on the right bank of the Cidacos River, just over 100 km northwest of the colony at Caesaraugusta. The Claudian³⁴² "Chimney" Baths or Baths of the North are located in a northern neighbourhood of the city "near" ³⁴³ the Eras or Estrella Gate. Structures excavated slightly north of the main bath remains (in the area referred to as 'La Clínica') were originally interpreted as a domus; ³⁴⁴ however, recent re-evaluation of the evidence suggests that they may relate to the baths. ³⁴⁵ An artisanal area has been identified to the southeast of the bath remains. ³⁴⁶ The so-called "Arnedo Road Baths" were outside the later imperial city walls in the southwestern suburb of the city. ³⁴⁷ These baths were unfortunately destroyed in 1993/4; however, photographic and historiographic evidence places them "200 steps" ³⁴⁸ west of the circus, near the top of the slope leading down to the Cicacos River. An artisanal area

³⁴¹ Martin Bueno 1975: 245. This structure has not been included in the final count.

³⁴² Pavía Page 2018: 617.

³⁴³ The baths were partially destroyed in the 1940s (Luezas Pascual 2000: 185, 186). Although Luezas Pascual (2000: 188) writes that the baths are "near" this gate, no exact measurements are possible. This gate is contemporary with the third century wall that reduces the size of the city and divides the baths into two, leaving some *pillae* and two pools outside the wall (Luezas Pascual 2000: 188). Moreover, Luezas Pascual (2000: 188) states the building goes out of use with the erection of the wall while Antoñanzas Subero (2001: 171) and Antoñanzas Subero and Tejado Sebastián (2002: 141) place the abandonment of the baths in the fourth century CE. If Luezas Pascual is correct, the baths and gate were not in use at the same time. See Pavía Page 2018: 613-619 for description and bibliography.

³⁴⁴ Espinosa Ruiz 1984: 134-138.

³⁴⁵ Antoñanzas Subero 2001: 173; Antoñanzas Subero and Tejado Sebastián 2002: 142; Calonge Miranda 2021: 6, n. 20; Cinca Martínez 2011: 94; Iguácel de la Cruz 2002: 45; Luezas Pascual 2000: 185-189.

³⁴⁶ Calonge Miranda 2021: fig. 5.

³⁴⁷ See Pavía Page 2018: 619-620 for description and bibliography.

³⁴⁸ Llorente 1789: 3 taken from Antoñanzas Subero and Tejado Sebastián 2002: 143 and Luezas Pascual 2000: 189. Approximately 90 m separates these baths from the circus (Calonge Miranda 2021: fig. 5). These are the same baths that the seventeenth century CE historian Antonio Martínez de Azagra called the "Baths of Octaviano Augusto" because the emperor apparently bathed there during the Wars of Cantabria (Martínez Martínez 1981: 45 from Luezas Pascual 2000: 188). See Luezas Pascual (2000: 188) for a summary of the evidence of these baths.

separates the baths from the circus.³⁴⁹ Two of the city's *cloacae* are located near this bath,³⁵⁰ and a residential zone lies to its southwest, the acropolis to the south.³⁵¹ The public or private function of the third baths, located on modern San Andrés Street, is debated and thus they are not included in the final count.³⁵²

Los Bañales, Tarraconensis

Only one bath has so far been identified at the probable *municipium* of Los Bañales (Roman name unknown),³⁵³ located in northeastern Spain on the Caesaraugusta-to-Pompelo road. Although there is still uncertainty about the larger urban layout of the town and how the mid-to-late first century baths fit into it,³⁵⁴ their position (about 50 m) south of the forum suggests that they were a part of the town's monumental centre at the foot of the El Pueyo Hill.³⁵⁵ A porticoed *cardo* flanked the baths' west side, and another (onto which they would have opened) is thought to lie to their east.³⁵⁶ Across the western *cardo* to the northwest of the baths is a domestic structure (either a house or a *tabernae* with living space).³⁵⁷

³⁴⁹ Calonge Miranda 2021: fig. 5.

³⁵⁰ Cinca Martínez 2002: 61-73, cf. fig. 1 and 2.

³⁵¹ Calonge Miranda 2021: fig. 5; Cinca Martínez 2011: 94. Cinca Martínez (2011: 94) also places these baths on or near the *decumanus maximus*.

³⁵² Calonge Miranda (2021: 19) and Cinca Martínez (2011: 97-8) identify them as public, while Luezas Pascual (2000: 189-190) categorizes them as private. More bath remains were found at 24 Dr. Chavarría street (a residential suburb north of the city) (Calonge Miranda 2021: fig. 5; Antoñanzas Subero and Tejado Sebastián 2002: 143), which Luezas Pascual (2000: 190) also categorizes as private (and they are also not included in the final count).

³⁵³ See Andreu Pintado 2011a: 21-22 for some suggested Roman names for Los Bañales (Muskaria, Tarraca de las Fuentes, or Segia).

³⁵⁴ García Entero 2011: 239-240; Andreu Pintado et al. 2008: 247; Nielsen 1993b: 16. Lausén Alegre and Nasarre Otín (2008: 229) date the bath to the first half of the first century CE. The baths are approximately 950 m² (Pavía Page 2018: 637). See Pavía Page 2018: 637-43 for description and bibliography.

³⁵⁵ García Entero 2011: 227; Andreu Pintado et al. 2008: 236.

³⁵⁶ Andreu Pintado et al. 2008: 241. The entrance to the bath's service area was off this *cardo* (García Entero 2011: 228).

³⁵⁷ Agudo et al. 2011: 260; Andreu Pintado 2011b: 9, fig. 14.

Lucentum, Tarraconensis (modern Tossal de Manises)

Lucentum, a *municipium* on the southeast coast of Spain between Valentia and Carthago Nova, has two public baths, both in the vicinity of the forum. The bath closest to the forum and earliest in date (last decade of the first century BCE), is the so-called "Baths of Popilio." They sat on the south corner of the forum with the *cardo maximus* bordering their southern side. The second baths ("Baths of the Wall") were built later, in the middle of the first century CE, down the street from the Popilio Baths (a distance of about 20 m). Bordered to the north by the *cardo maximus* and on the south by the city wall, a city gate lies only 15 m to the southeast of these bath.

Lucus Augusti, Tarraconensis (modern Lugo)

There are two known baths serving Lucus Augusti, a *municipium* in northwestern Spain. The first, dating to the second half of the first century CE, is located approximately 50 m northeast of a Mithraeum and just beyond that, a late antique city gate. *Domus* have been found in the *insulae* to the baths' north and east and the *decumanus maximus* runs along the bath

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³⁵⁸ Olcina Doménech 2007: 137. These baths have two construction phases. The first belongs to the last decade of the first century BCE, and the second belongs to the second quarter of the first century CE (23-29 CE). This second phase corresponds to the bath's enlargement (addition of an apodyterium/frigidarium) by the freedman Marco Popilius Onyx (Fernández Díaz and Olcina Doménech 2006: 166, 167), during an overhaul of the forum area which included the extension of the forum, paving of the square and street, as well as drainage (that also served the baths) (Olcina Doménech et al. 2012: 4). Olcina Doménech et al. (2012: 10), however, argue against a BCE date for the baths suggesting it had to be constructed later in the early first century CE. Although only partially excavated, the total size of the baths is estimated to be around 290 m² (Pavía Page 2018: 415). This is small for a public bath, but this may be a result of the crowded nature of the forum area. See Pavía Page 2018: 412-419 for description and bibliography.

³⁵⁹ Olcina Doménech 2007: 135.

³⁶⁰ Olcina Doménech 2007: 138. The Baths of Popilio appear to have gone out of use by the third century CE (Olcina Doménech et al. 2012: 10), and so there was some overlap in the use of the two baths. The Baths of the Wall was slightly bigger than those of Popolio at approximately 340m² (Pavía Page 2018: 419). See Pavía Page 2018: 419-424 for description and bibliography.

³⁶¹ All measurements taken from Aranegui 2011: fig. 4.

³⁶² The wall was demolished to make room for the baths, the enclosing wall of which was built to parallel the line of the older wall (Pavía Page 2018: 422).

insula's north edge.³⁶³ The other bath is extramural, about 800 m southwest of the walled city on the north bank of the Miño River. They were so placed to make use of a naturally occurring sulphurous spring, the Miño River itself, and abundant aquifer springs in the area. ³⁶⁴

Segobriga, Tarraconensis (modern Municipality of Saelices)

Situated in the centre of the Roman province of Tarraconensis, on the road between Caesaraugusta to the northeast and Complutum to the south-west, the *municipium* of Segobriga has two known Roman baths. The earliest, the so-called "Theatre Baths" are late Republican in date and are located in the northern sector of the town, just south of the city wall. At the time of the baths' construction, the area east and southeast held domestic dwellings and a sanctuary precinct. The north gate of the Republican town has tentatively been identified on the baths' northwest side. During the Flavian period, a monument tri-portico and plaza replaced the domestic and religious buildings to the baths' west, and a theatre was added 27 m to the northeast of baths, outside the city walls. A T-shaped Claudian basilica and *exedra* added to the north end of the Augustan forum extends south and west of the baths, with the southwest corner of the baths touching west wall of the basilica *exedra*. Finally, a late first century CE amphitheatre lay 30 m to the northwest of the baths outside the city walls.

³⁶³ Pavía Page 2018: 825, fig. 386. See Pavía Page 2018: 822-826 for description and bibliography. The baths may have continued in use until the fifth century CE (Pavía Page 2018: 825) and so were still in used when the walls and gate were erected in the later third century CE.

³⁶⁴ Carreño 1992: 345. These baths date to the second quarter of the first century CE (Gonzalez Soutelo 2012: 179).

³⁶⁵ Cebrián Fernández 2017: 478. The baths are thought to be pre-Augustan and measure 442 m² (Pavía Page 2018: 436, 440). See Pavía Page 2018: 436-442 for description and bibliography.

³⁶⁶ Cebrián Fernández 2017: fig.1; 476.

³⁶⁷ All measurements taken from Cebrián Fernández 2019: fig. 01.

³⁶⁸ All post-Augustan additions to the town are on a different alignment to the baths; the baths are aligned just slightly east of a north-south alignment, while the other structures in the city are on a slightly northwest-southeast alignment (Cebrián Fernández 2019: fig. 01).

A larger set of baths (the "Monumental Baths")³⁶⁹ are located to the southwest of the Republican baths on a plateau overlooking the city's forum from the southwest.³⁷⁰ The baths are part of a Flavian building project that included a structure thought to be associated with the imperial cult.³⁷¹ This structure, attached to the baths by a small staircase, separates them from the west side of the forum by a distance of 50 m.

Conímbriga, Lusitania

Conímbriga, located on the main route between Olisipo (Lisbon) and Bracara Augusta (Braga), has four baths, two of which occupy the same location. The earliest known baths are Augustan in date³⁷² and sit on the southern edge of the city, 60 m southeast of the Augustan forum.³⁷³ The Iron Age houses north of the baths were later replaced by a Julio-Claudian domestic *insula* that started just 1.5 m north of the bath's north face.³⁷⁴ More Iron Age dwellings were found in the area south of the baths (between it and the city wall bordering the plateau edge), which were also replaced by a Julio-Claudian structure (possibly a *horrea*). Across the street to the west there is some evidence of Augustan housing; the *insula* to the east is unexplored.³⁷⁵ This bath was later completely destroyed and replaced in the Flavian/Trajanic period with a larger bathing complex, now only 55 m southeast of the enlarged Flavian forum.³⁷⁶

³⁶⁹ These baths measure around 3400 m² (Pavía Page 2018: 442). See Pavía Page 2018: 442-449 for description and bibliography.

³⁷⁰ The position of the baths allows them to receive direct and uninterrupted sunlight (Abascal Palazón et al. 1997: 41).

³⁷¹ Abascal Palazón 2019: 379; Cebrián Fernández 2019: 164; Abascal Palazón et al. 2002: 133, 153.

³⁷² Alarção and Étienne 1979: 881.

³⁷³ Measurements taken from Alarcão and Étienne 1977: pl. 51 (LI).

³⁷⁴ Alarção and Étienne 1977: 65, 76, 78.

³⁷⁵ Alarção and Étienne 1977: 66, 78, 79, pl. 21, 52

³⁷⁶ Measurements taken from Alarcão and Étienne 1977: pl. 51 (LI).

The back wall of these baths has been reconstructed to join with the southern city wall that bordered the plateau edge and overlooked the valley to the south.³⁷⁷

The third bath was also likely Flavian in date³⁷⁸ and was located in the southeast sector of the city, in a wealthy residential area, between the House of Tancinus to the west and the House of the Skeletons to the north. Like the Flavian/Trajanic baths further west, these baths appear to have extended to the plateau edge and southern city wall (as its path has been reconstructed by modern scholars).³⁷⁹ When this bath went out of use in the third century CE, it was replaced by another 120 m to the northwest, in the northeast sector of the newly contracted city.³⁸⁰ These baths had the new city wall to their north and east, with a new gate 10 m to the northeast. To the west was a residential area, which separated these baths from the forum.³⁸¹ The Augustan aqueduct bordered the bath to the southeast and ended in the *castellum aquae* at the baths' southwest corner. A commercial *insula* lay directly on the other side of the aqueduct.³⁸²

Baelo Claudia, Baetica

On the northeastern shore of the Strait of Gibraltar, 250 km southwest of Corduba, the capital of Baetica, lay the Claudian *municipium* of Baelo Claudia. To date, two baths have been identified. The earliest baths³⁸³ lie in the first *insula* inside the lower western city gate, the Gate

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³⁷⁷ Alarção and Étienne. 1977: pl. 27.

³⁷⁸ See Correia and Reis 2000: 272-274 for a discussion of the difficulties in dating this bathing facility.

³⁷⁹ Reis et al. 2011: fig. 1. Reis (2014: 63) and Correia and Reis (2000: 272) have also suggested that these baths were "perhaps" next to the municipal forum, however, this public space has not yet been confirmed through excavation.

³⁸⁰ Coelho 1996: 88. Measurement taken from Alarcão and Étienne 1977: pl.52 (LII)

³⁸¹ Reis 2014: 62; Correia and Reis 2000: 277. A distance of approximately 60 m. Measurements taken from Alarcão and Étienne 1977: pl. 52 (LII).

³⁸² A building in the *insula* south of the baths was excavated by V. Correia in 1934, which he defined as a commercial establishment; however, no excavation report exists to corroborate this conclusion (Coelho 1996: 91).

³⁸³ While the original excavator date the baths to the late third century CE (Mayet 1975: 98), the date has been progressively moved forwards by scholars, first to the second century CE (Silléres 1995: 162), and most recently to the mid-to-late first century CE (Roldán et al. 2018: 66; Gómez Araújo 2013: 173, 174; 2014: 105).

of Gades, and two *insulae* removed from the *macellum* and forum to the southeast (55 m).³⁸⁴ The bath had three entrances on its southwest side which opened up on to the *cardo maximus* that joins the Gate of Gades to the forum. In between these entrances where a series of shops/ *tabernae* which also opened up onto the main *decumanus*.³⁸⁵ The second baths, dated to the first half of the second century CE (possibly Trajanic or Hadrianic),³⁸⁶ lie outside and south of the city walls in what has been labelled by its excavators a "peri-urban" suburb of the city.³⁸⁷ The hill on which the baths sit is on the left (southern) bank of the Viñas River (which also wraps around its eastern side), over 100 m north of the shoreline, southeast of a necropolis that stretched to the west away from the city, and 115 m west of the fishing and industrial area situated in the southeastern sector of the walled town. It is 75 m southwest of the aforementioned intramural baths on the *decumanus maximus*.

Conventus iuridicus capitals

Asturica Augusta, Tarraconensis (modern Astorga)

Asturica Augusta, capital of the *Conventus Iuridicus Asturum*, and later capital of the *Provincia Hispania Nova Citerior Antoniniana*, ³⁸⁸ is located at the junction of the Jerga and Tuerto Rivers in northwestern Spain, on the road leading south from Lucus Augusti. One public bath has been confirmed in the city, the so-called "Major Baths" (mid-first century CE). ³⁸⁹ These

³⁸⁴ All measurements taken from Bernal et al. 2013: fig. 2.

³⁸⁵ Roldán et al. 2018: 63; Gómez Araújo 2013: 167; Silliéres 1995: plate 78.

³⁸⁶ Sánchez et al. 2019: 209; Bernal et al. 2013: 134, 146.

³⁸⁷ Bernal et al. 2013: 118.

³⁸⁸ García Marcos and Vidal Encinas 1999: 925; García Marcos and Vidal Encinas 1995: 375; García Marcos 1994b: 167; Fernández Ochoa 1993: 227. The city also had gained *municipium* status by the time it became the capital of Gallaecia under Caracalla (Fernández Ochoa 1993: 231), although some scholars have suggested a Flavian date for the granting of this title (see Abascal Palazón and Espinosa 1989).

³⁸⁹ Núñez Hernández 2008: 189; Sevillano Fuertes and Vidal Encinas 2000: 204; García Marcos and Vidal Encinas 1995: 377. The bath is thought to have measured about 4000 m², however, only approximately 2000 m² have been excavated (Pavía Page 2018: 775). See Pavía Page 2018: 775-780 for description and bibliography.

baths are near the centre of the city; the large *insula* that they fill lies northwest of the main intersection of the city. At least two houses have been found in the *insula* to the east of the baths.³⁹⁰ There is a correspondingly named 'Minor Baths;' however, most scholars suggest that they were not fully open to the public, possibly serving a *collegium* or neighbouring residents instead.³⁹¹ It will therefore not be included in this survey. Another structure in the northwest sector of the town, on the street leading in from the northern ('Obispo') gate, has been provisionally identified as a bath, but has not yet been fully explored.³⁹²

Bracara Augusta, Tarraconensis (modern Braga)

Excavations at Bracara Augusta, the *conventus* capital of the Bracari in northwestern Tarraconensis, have revealed four public baths. The best known are the Alto da Cividade Baths or *Thermae* of Maximinus, erected at the same time as the adjacent theatre (early second century CE). Together they lie one *insula* (35 m) to the southwest of the forum. Another set of baths, the second century CE baths in the *insula* of Carvalheiras, lie approximately 160 m to north of the theatre and Alto bath complex, in a residential and commercial area of the city. The other two baths are less well known and excavated, but have been identified as public because of their monumentality (both are through to be larger than one *insula*).

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³⁹⁰ Pavía Page 2018: fig. 366.

³⁹¹ Núñez Hernández 2008: 167; Burón Álvarez 2006: 296; Sevillano Fuertes and Vidal Encinas 2002: 41; 2001: 664; García Marcos and Vidal Encinas 1999: 937; García and Vidal 1999: 937; 1996: 138; 1995: 388; 1990: 29-30; Burón Álvarez, 1997: 19; García Marcos and Vidal Encinas 1996: 138; García Marcos and Vidal Encinas 1995: 388; García Marcos, 1994a: 23.

³⁹² Núñez Hernández 2008: 169; Sevillano Fuertes and Vidal Encinas 2000: 199.

³⁹³ Martins et al. 2011: 9. Measurement from Martins et al. 2011: fig. 2. The baths measure 1379 m² (Pavía Page 2018: 831). See Pavía Page 2018: 831-843 for description and bibliography.

³⁹⁴ Martins et al. 2011: 24, 25. Measurement taken from Martins et al. 2011: fig. 2. The public nature of this bath is not fully confirmed. A monumental façade facing onto the street west of the baths west suggests that it was open to the public, however, the continued access to the baths from the house with which it shared an *insula*, may suggest that the domus-owner retained some privilege of use or even built the bath and let it out for public use (Martins et al. 2011: 24; Martins and Silva 2000: 80). For more information on its development see Martins et al. 2011: 21-25.

³⁹⁵ Martins et al. 2011: 3, n.1; Martins 2005: 70.

forum, the *cardo maximus* bordering the west end of its *insula*, while the other, east of the Diogo de Sousa Museum, lies southeast of the forum.³⁹⁶

Cities and towns with no known formal status

Baetulo, Tarraconensis (modern Badalona)

Described by Pliny as an *oppidum civium Romanorum*,³⁹⁷ the *ex novo* town of Baetulo, located on the eastern coast of Spain, 10 km northeast of Barcelona, has two known public baths. The earliest baths, the so-called "Clos de la Torre" Baths, mid first century BCE in date, is now located in the basement of the city's museum, but in Roman times lay in the southeastern sector of the lower city, an area which seems to have been largely devoted to public buildings (theatre, baths, *tabernae*, etc.) and commercial and artisanal activity.³⁹⁸ In its second phase, the baths were extended towards the *Via Augusta* to the south, the coastal road that ran down the eastern coast of Hispania, linking many important Roman cities.³⁹⁹ These baths were also 50 m east of the main intersection of the town and are bordered on their north and west sides by small houses and *tabernae*.⁴⁰⁰ The other public baths (referred to in the literature as the "Hort de les Monges"

³⁹⁶ Martins labels these baths near the museum as domestic in his 2005 publication on the Alto Baths (2005: 71, fig. 68), however, in a 2011 co-edited paper, Martin and his co-authors suggests that these baths were actually public given their size and the fact that they encroached upon the streets around them (Martins et al. 2011: 3, n.1). Measurements taken from Martins et al. 2011: fig. 2; Martins 2005: fig. 68. See Pavía Page 2018: 844 for description and bibliography of the Diogo de Sousa Museum Baths.

³⁹⁷ Pliny *Naturalis Historia* 3.4.2.

³⁹⁸ Guitart i Duran 2010: 14, 15; Guitart i Duran and Padrós i Martí 1991: 55. These baths, also called the Republican Baths, measured 350 m² (Pavía Page 2018: 257). See Pavía Page 2018: 257-265 for description and bibliography.

³⁹⁹ Guitart i Duran 2010: 15; Guitart i Duran 1976: 69, 72, fig. 8a and 8b.

⁴⁰⁰ Forn Perramon, et al. 2020: fig. 1.

Baths⁴⁰¹ or the "Maritime Baths"⁴⁰² lie in the port district of the city, south of the *Via Augusta*, about 45 m south of the other public baths.⁴⁰³

Gijón, Tarraconensis

Only one bath has been found in Gijón, an *ex novo* Roman town on a peninsula on the northern coast of Spain, which juts out into the Cantabrian Sea. These late first or early second century baths⁴⁰⁴ (the Campo Valdés Baths) sit on the southeastern skirt of the peninsula, very close to the water's edge. A late third or early fourth century CE wall bordered the baths on their south and east sides.⁴⁰⁵ The wall respected the boundaries of the bath (which remained in use); its width was reduced to accommodate them, and the footings of the wall were attached to the southern façade of the baths.⁴⁰⁶

Lancia, Tarraconensis

The only extant public bath at Lancia, a Roman town of possible *municipium* status in northwestern Spain, was located on the west side of the city's *macellum* in what is presumed to be the city's urban centre.⁴⁰⁷ These late first century CE baths were bordered on their north and

⁴⁰¹ Guitart i Duran 1976: 78-79. The baths measure approximately 400 m2 (Pavía Page 2018: 265). See Pavía Page 2018: 265-269 for description and bibliography.

⁴⁰² Hinojo García et al. 2018: 99.

⁴⁰³ Hinojo García et al. 2018: 99. Measurement from Forn Perramon et al. 2020: fig. 1. The baths have been associated with the inscription *CIL* II.4610 (now lost), naming a Marco Fabio Nepoti as *curator balinei novi* (Pavía Page 2018: 267-268; Fabre et al. 1984: 186-187). If this association is correct, it suggests that the baths were public. The date of the baths is uncertain: dated by some to the early imperial period (i.e., Hinojo García et al. 2018: 99), Guitart i Duran and Padrós Martí (1991: 56) suggest the possibility of an even earlier date, connecting the construction of theses baths with the renovations to the "Clos de la Torre Baths" in the Augustan period. ⁴⁰⁴ Fernández Ochoa and García Díaz 2017: 618; Fernández Ochoa 2005: 36; Fernández Ochoa and García Díaz 2000: 445. The baths measure 450 m² (Pavía Page 2018: 753). See Pavía Page 2018: 753-760 for description and bibliography.

⁴⁰⁵ Fernández Ochoa 2005: 36, 40; Fernández Ochoa and García Díaz 2000: 444.

⁴⁰⁶ Fernández Ochoa 1993: 372.

⁴⁰⁷ Núñez Hernández 2008: 175. A building, possibly a warehouse for cattle to be sold in the macellum, is located in the lot between the bath and the macellum (Celis Sánchez et al. 2002: 274). The baths (not including the possible large palaestra to the south) measure 1181 m² (Pavía Page 2018: 796). See Pavía Page 2018: 796 for description and bibliography.

south sides by porticoed *decumani*, ⁴⁰⁸ from which one likely gained access to the baths, ⁴⁰⁹ while a porticoed *cardo* (possibly the *cardo maximus*) passed along the east side of the *macellum*. ⁴¹⁰

Mirobriga Celticorum, Lusitania (modern Miróbriga)

Miróbriga, 140 km southeast of Lisbon, Portugal, has a one large bath complex comprising two separately built but connected baths: the earlier second century East Baths and the mid-to-late second century West Baths. 411 They are located in a natural hollow at the southern base of the Castelo Velho Hill, at the top of which was situated the city's mid-first century CE forum and temple architecture. Terraced into the southeastern slope of this hill are three structures: a possible market complex (or shops), a possible *taverna*, and an unidentified buttressed building (65 m, 70 m, and 45 m northeast of the East Baths, respectively). 412 Approximately 15 m southeast of the East Baths is a Roman bridge crossing a ravine that wraps around the eastern side of the hill and site. 413 The hollow in which the baths sit is sloped on three sides and this would have funneled rain water to them. This natural supply of water combined with the water coming into the valley from the southwest may have been one of the deciding factors when choosing this site for the baths. 414

⁴⁰⁸ The *decumanus* south of the baths has been provisionally identified as the *decumanus maximus* (Liz Guiral and Celis Sánchez 2007: 245, 262. Date: Celis Sánchez *et al.* 2002: 281; Núñez Hernández 2008: 189.

⁴⁰⁹ Celis Sánchez et al. 2002: 280.

⁴¹⁰ Liz Guiral and Celis Sánchez 2007: 248, 262.

⁴¹¹ Biers 1988: 109, 110-111. There seems to be some uncertainty about the construction date of the East Baths. In a 1984 publication W.R. Biers dates pottery fragments in the fill below the earliest construction of the East bath to the late first century CE (1984: 31). However, in the W.R. Biers' edited 1988 final excavation publication of the baths, these same materials are said to date to at least the early second century CE (Biers 1988: 109).

⁴¹² Soren 1982: 36, 37. Measurements taken from Warner Slane et al. 1983: fig. 3.

⁴¹³ Measurement taken from Biers and Biers 1982: fig. 2.

⁴¹⁴ Biers 1988: 48, 108; Biers and Biers 1982: 30.

Discussion:

Over the span of the three provinces of Roman *Hispania*, twenty-six cities have been surveyed. As was seen in the placement of baths in Italy, the most popular location for baths was the forum, with twenty examples from sixteen different towns. Also very popular were gates/edge of the settlement (nineteen from thirteen cities) and major thoroughfares (nineteen from thirteen towns), four baths of which were near the intersection of the *cardo maximus* and *decumanus maximus*). Other repeated bath locations in descending of popularity include: residential areas (nineteen baths from sixteen sites), ⁴¹⁵ water sources (fifteen from ten sites), industrial/commercial/artisanal areas (thirteen from nine sites), ⁴¹⁶ suburban or peri-urban spaces (eight from five sites), other sport/leisure/entertainment structures (seven from six sites), main intersections/town centres (six baths from six cities), harbours or ports (six from four sites) and temples or sanctuaries (five from four sites). Finally, the only extant baths from Lancia were located near the *macellum*, which may also indicate that they were near the forum; however, it has not yet been identified.

BRITANNIA (Britain)

Although our understanding of Iron Age Britain is still developing, archaeology has revealed a wide range of settlement types, including hillforts, numerous *oppida* (indigenous villages), and rural farms belonging to the various tribes (e.g., the Atrebates, the Iceni, the

⁴¹⁵ This number reflects baths that have at least one residential structure nearby; only five can be said to be in fully residential neighbourhoods. Moreover, the number of baths near domestic buildings should likely be much higher, however, in many cases the full immediate surroundings of baths included in the survey have not yet been fully excavated.

⁴¹⁶ Similar to what we see with residential neighbourhoods, none of the ten baths with one or more commercial, industrial, or artisanal buildings nearby can be said to be in such a neighbourhood, although three (the "Chimney" Baths or Baths of the North and the Arnedo Road Baths from Calagurris Iulia Nassi as well as the *Insula* of Carvalheiras Baths from Bracara Augusta) have such districts nearby.

Silures, etc.) that populated the island. Moreover, a large number of *oppida* have been identified, mostly in East Anglia and the east Midlands⁴¹⁷ which typically had some degree of urbanism that include ditches, ramparts, circular huts, coins, and metal working. Unfortunately, it is often difficult to identify the type and extent of pre-conquest settlement in the Roman era towns and cities included in this survey.

Although official Roman interest began in Britain under Caesar, the annexation and introduction of permanent military occupation came later with Claudius' conquest in 43 CE, and it is to this period that Roman-style baths and bathing was introduced through the legionary baths like those at Chester and Caerleon. We also begin to see a number of *coloniae* and *civitas* capitals set up as administrative centres, mostly in south and eastern Britain, which were outfitted with regular street plans, temples, theatres, and baths. Some of these new centres were built over pre-existing indigenous settlements, while others developed out of legionary fortresses or the *vicus* or *canabae* that surrounded them. A more complete picture of the interaction of Roman and pre-Roman urbanism in Roman Britain will be given in the first section of Chapter Four.

The archaeology of baths in Roman Britain is faced with many of the same issues as was discussed for Italy and Spain, such as modern development that often constricts the full excavation and understanding of bathing structures (e.g., the baths at Colchester). Moreover, the inability to fully excavate Roman towns has also meant that, in many cases, the transition between indigenous settlement and/or legionary fort and the later civilian town is poorly understood. ⁴¹⁸ For example, Exeter is the only place for which we have both the location of the legionary baths and the civilian period baths. It also means that baths are often excavated in

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⁴¹⁷ Potter and Johns 1992: 23, 25.

⁴¹⁸ The transition from legionary fort to the civilian town and integration of civilian baths will be discussed in Chapter Four.

isolation and so little can be said about their urban location aside for their position in the town (and even that can be difficult for towns were the city limits have not yet been confirmed).

Moreover, excavations rarely go below the level of the baths, meaning their integration into urban space can be difficult to unravel (see Chapter Four).

Therefore, only towns for which there is information about what types of structures lay near their baths have been included in this survey. This has resulted in a survey of thirteen Romano-British towns (see figure 8, below), which have been organized, first by town type (seats of the governor, *coloniae*, *civitas* capitals, no status) and then alphabetically within each category.

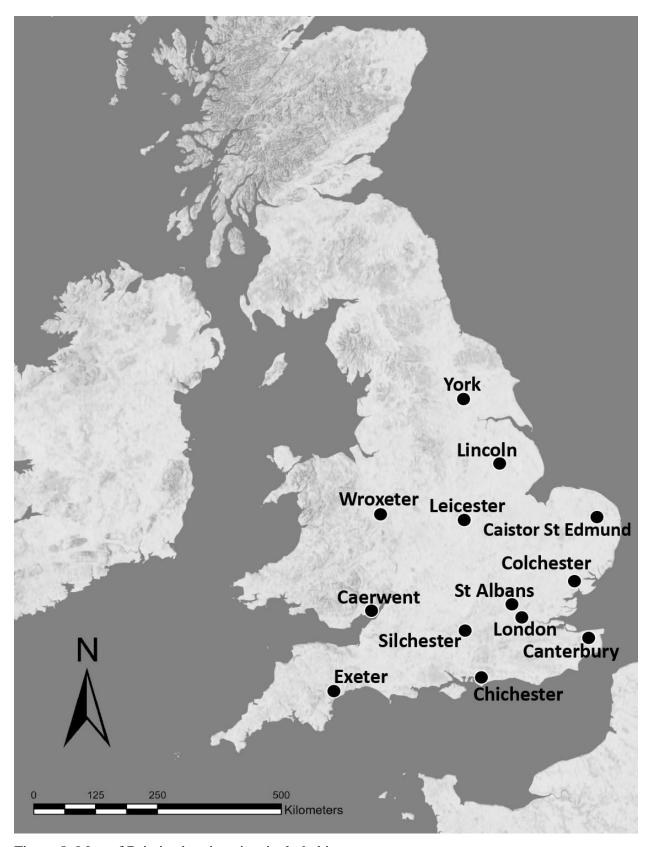


Figure 8: Map of Britain showing sites included in survey.

Seats of the governor

Colonia Eboracensis (modern York)

The largest public urban bathhouse from the seat of the governor and *colonia* of York, and indeed the largest in Roman Britain save the Higgin Hill baths in London, are those located under the Old Railways Station and Air Raid Control Centre, 419 in the south-west section of the town, approximately 20 m from what has been suggested to be the western defence wall. 420 The baths along with other timber buildings in the area are on a slightly different alignment to the rest of the colonia, suggesting that they predate the reorganization of the town when it was given its new colonial status, likely under Caracalla. 421 Not much is known about other buildings in the area; however, approximately 75 m to the east lay a Temple to Serapis, and a relief of Arimanius, the Mithraic god of evil, found at the northern end of the bath site may indicate the presence of a Mithraeum in the area. 422 Within the area of the colonia (i.e., the area south west of the Ouse River) there are two other possible baths, although limited excavation makes it impossible to say with certainty whether they were public or private facilities. One, on Fetter Lane, of unknown date, 423 is surrounded by buildings of unknown use in what Ottaway has identifies a public area of the town. 424 About 100 m northeast of the Fetter Lane baths, under the Queen's Hotel, and also within Ottaway's "public area" is an early third century building identified as another public

⁴¹⁹ Wacher 2015: 167.

⁴²⁰ Measurement taken from Ottaway 2004: fig. 44. The line of the Roman period defenses is assumed to lie underneath the Medieval walls (Ottaway 2004: 69).

⁴²¹ Wacher 2015: 167

⁴²² McComish 2015: 17.

⁴²³ The bath had a floor of *Legio* IX stamped tiles (pre 120 CE); however, it seems most likely that the tiles were reused, and that the bath is of a later date (McComish 2015: 10; Ottaway 2004: 72; RCHME 1962, 52).

⁴²⁴ Ottaway 2004: fig. 44.

bathhouse. 425 The uncertainty surrounding these final two baths has led to their exclusion from the finally count.

Across the river, a late second or early third century re-planning of the area south and southeast of the fortress included the erection of a bathhouse (approximately 100 m southeast of the south corner of the fortress), along with other buildings, 426 which inscriptions suggest might have included a temple of the Imperial cult and a temple of Hercules. 427 All of these buildings likely served the community that grew up around the fortress in the *canabae*. 428

Londinium (modern London)

Of the twelve baths so far identified in London, eleven were private, belonging to either a house or *mansio*. Only one, the so-called "Huggin Hill Baths," was a public bathhouse. Erected in the later first century CE, this bath had a short life-span and was dismantled in the mid-to-late second century. No other public bathhouse has yet been found which might have replaced it. Huggin Hill bath was constructed on a series of terraces cut into a hillside (the Huggin Hill), approximately 25-30 m from the shore-line of the Thames River, and 200-250 m west of the Walbrook stream. An attural spring line also existed on the slope of this section of the embankment, the water from which was stored in large tanks and used in the baths. Sharing the embarkment with the baths, approximately 65 m to the west, was a contemporary

⁴²⁵ McComish 2015: 18; Wacher 2015: 174; Ottaway 2004: 102; Monaghan 1997: 1102. Wacher (2015: 174) suggests that these baths might be part of the Fetter Lane baths; however, the distance between the two buildings makes this seem unlikely. Measurement taken from Ottaway 2004: fig. 44.

⁴²⁶ Ottaway 1999: 140.

⁴²⁷ RCHME York 1962: 119.

⁴²⁸ Ottaway 1999: 140. For more information on the complex settlement history of York see Chapter Four.

⁴²⁹ Rowsome 1999: 95, 273.

⁴³⁰ Wacher 2015: 95; Rogers 2012: 1; Rowsome 1999: 269; Williams 1993: 36.

⁴³¹ Wacher 2015: 95; Milne 1993: 12.

⁴³² Wacher 2015: 89, fig. 37; Rowsome 1999: 263; Williams 1993: fig. 1, 27(b).

⁴³³ Wacher 2015: 94-95; Williams 1993: 6.

public complex, which possibly included a temple.⁴³⁴ Rowsome suggests that this section of town may have been set aside for public use.⁴³⁵

Coloniae

Colonia Claudia Victricensis Camulodunensium (Camulodunum) (modern Colchester)

The site of the public bathhouses of Colchester has long proved elusive for archaeologists working here. Various *insulae* have been suggested as the location of the site's public baths, including *insula* 20 in the centre of the town, ⁴³⁶ and further east, *insulae* 30 and 38a, ⁴³⁷ both directly south of the Temple of Claudius precinct, with *insula* 38a further south than *insula* 30. Recently, in the summer of 2019, excavations performed by the Colchester Archaeological Trust revealed what they identified as a public bath at the corner of Saint Nicolas Street and Culver Street E. Unfortunately, the excavators have not yet fully published their findings, nor have they contextualized this location in terms of the Roman town layout. However, the examination of a map provided in Gascoyne and Radford's *Colchester: Fortress of the War God: An Archaeological Assessment* which lays modern Colchester over the Roman town plan, has determined that the newly found baths lay in the west section of *insula* 30. ⁴³⁸ Also in *insula* 30, are the remains of a large masonry structure and a metalled courtyard fronting onto the *decumanus maximus*. ⁴³⁹ It was at one time suggested that these might be the basilica and forum. ⁴⁴⁰ The relatively small size of the courtyard, however, especially in comparison to the

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⁴³⁴ Rowsome 1999: 272; Williams 1993: 29, 35. Measurement taken from Willaims 1993: fig. 6.

⁴³⁵ Rowsome 1999: 272.

⁴³⁶ Benfield and Garrod 1992: 33. Although one of the largest rooms of the building in *insula* 20 has a vaulted drain, like one might expect to find in a *frigidarium*, the rest of the building plan does not resemble a bath and because of this Crummy (1991: 9, 11) thinks that identifying the building as a bath is "a bit of a long shot".

⁴³⁷ Crummy 1991: 10 and Crummy 1988: 37.

⁴³⁸ Gascoyne and Radford 2013.

⁴³⁹ Drury et al. 1984: 25.

⁴⁴⁰ Fistwick 1997: 34; and Crummy 1977: 85.

temple precinct to the north, make this unlikely.⁴⁴¹ It now seems possible that the large masonry walls once thought to be part of the basilica instead belonged to the baths, and the metalled courtyard to a palestra or exercise space for the baths. Only further excavation will test this hypothesis and clarify the relationship of these structures with the baths.

As previously mentioned, the northwest insula 38a has also been suggested by scholars as a possible location for the town's public baths. This is largely based on the discovery of a number of first century flue tiles and "three hypocaust arched fireplaces" by William Wire in the northwest section of insula 38a in 1848 along with the discovery in 1929 of hypocaust tile and a large red tessellated floor. 442 While it is entirely possible that Colchester had more than one public bath, it does seem unlikely that there would be two public baths so close to each other in use at the same time. Black has circumstantially suggested that the building in *insula* 38a was pre-Boudican in date and was destroyed during the Boudican revolts, while the excavators of the newly discovered baths in *insula* 30, although not giving an exact date, seem to suggest that it was post-Boudican. 443 If this relative dating is correct, perhaps then the bathhouse in *insula* 30 replaced the one *insula* 38a after the area was heavily damaged during the revolts. There are of course some issues with this hypothesis. If the building in *insula* 38a is the earlier public bathhouse, the identity of the structure that excavators have found underneath the insula 30 bathhouse and have tentatively suggested was a previous incarnation of the present bath becomes uncertain. 444 Once again, more excavation is needed to clear up this point.

⁴⁴¹ Drury et al. (1984: 28, 29) also suggest that the forum and basilica were unlikely to be located so far away from the centre of the town and instead suggest *insula* 18 as the possible home of the forum and basilica.

⁴⁴² Black 1992: 120 and Crummy 1991: 11.

⁴⁴³ Black 1992: 123.

⁴⁴⁴ Black (1992: 123) offers a possible different solution: that if a bathhouse, the building in *insula* 38a may have been part of a *mansio* built sometime in the pre-Boudican period.

Although the area around the *insula* 30 bathhouse (i.e., the eastern *insulae* of the *colonia*) "seems to have been given over partly, if not entirely, to public buildings,"⁴⁴⁵ aside from the Temple of Clausius and the theatre the exact function of most of them are, as of yet, still unidentified.⁴⁴⁶

Lindum (modern Lincoln)

The earliest public baths at Lincoln, dating to the first half of the second century CE, ⁴⁴⁷ were located in the north-eastern sector of the upper city. ⁴⁴⁸ Situated directly across the town's northernmost east-west street from a row of shops, ⁴⁴⁹ they were approximately 80 m southeast of the north upper city gate, and 70 m northeast of the forum-basilica block. ⁴⁵⁰ The baths were also originally one *insula* (ca. 40 m) east of the town's *cardo maximus*; however, subsequent extensions saw them extend west towards it. ⁴⁵¹ It is unclear whether the baths ever reached this main street; a draft report by the original excavator D. Petch suggests that the baths were southfacing, rather than fronting west onto the *cardo maximus*. ⁴⁵² About 40 m north of the baths, just outside the northern defence wall was a *castellum aquae or castellum divisorum*, which stored water from an aqueduct thought to enter to the city from the northeast and serving the baths. ⁴⁵³ Erected sometime in the first half of the second century, the *castellum* is roughly contemporary

⁴⁴⁵ Crummy 1985: 78.

⁴⁴⁶ Crummy 1988: 42; 1991: 10 (insula 29); 1998: 34; 2019.

⁴⁴⁷ Jones 1988:159.

⁴⁴⁸ Lincoln was a double city, so to speak: the upper half was the original *colonia*, built on a hill, directly over top of the earlier fortress, and the lower city was built later, extending down the hillside towards the Witham River.

⁴⁴⁹ Jones 1999: 105. The road separating the baths from the shops was approximately 10 m wide (Jones et al. 2003: fig. 7.28).

⁴⁵⁰ The measurements are approximations based on the site plans of Jones 1988: Fig. 7.1 and Wacher 2015: Fig. 57. ⁴⁵¹ The baths were extended twice, possibly in the Hadrianic and Antonine periods, and eventually covered the small north-south lane to their west which originally separated them from the *insula* directly east of the *cardo maximus* (Jones et al. 2003: 60, 80).

⁴⁵² The original excavator D. Petch, has not published his findings however, a draft report has been viewed by Jones (2003b: 79, 80).

⁴⁵³ Jones 2003b: 61; Jones 1999: 106; Thompson 1954: fig. 1. Measurement taken from Jones 1988: fig. 7.2.

with the baths, although it is not clear which was built first.⁴⁵⁴ A well (the so-called "Blind Well") was found in the *insula* to the west of the baths was apparently big enough to have served the baths and may be linked to the aqueduct of the town.⁴⁵⁵

A second, later bath was found facing west onto the main north-south (Ermine) street of the lower city. 456 This street had a number of public buildings and monuments fronting onto it: on the same side of the street and roughly 25 m south of the baths was a late second-early third century temple or shrine dedicated by a guild of Mercury, and 75 m south was a public fountain. 457 The areas to the east and west of this public sector were residential, 458 and the entire lower city was apparently "riddled with springs,"459 although it is not known how these specifically related to the baths.

Civitas Capitals

Calleva Atrebatum (modern Silchester)

At Silchester, the bathhouse is dated by a brick stamp to the second half of the first century CE and is believed to be one of the earliest large structures in the town. 460 It was located

⁴⁵⁴ Jones 1988: 159.

⁴⁵⁵ Ingate 2019: 71.

⁴⁵⁶ Jones 1985: 90; 2003b: 90. Although the exact date of the lower city baths is unknown, it is necessarily later than the upper *colonia* baths, as the lower city developed after the upper city infrastructure had been erected.

⁴⁵⁷ Hawkes and Richmond 1946: 43. The date of the temple is suggested by the presence of a late second or early third century CE inscription (*RIB* 1965: 270) naming the *vicus* of the guild of Mercury amongst the architectural fragments (Jones 2003b: 90). Measurements approximated from Jones et al. 2003, fig. 7.31.

⁴⁵⁸ Jones 2003b: 82.

⁴⁵⁹ Jones 2003c: 111.

⁴⁶⁰ Boon 1957: 101-102. The brick stamp in question bears the Emperor Nero's titles of 54-68 CE (NER CL CAE AVG GER) and was found in the cesspit to the east of the latrine (Boon 1974: 46-47; St. John Hope and Fox 1905: 366). The bath's early date is further supported by the early excavators' discovery that the baths had in fact been built before the east-west road (late first-early second century CE) along its northern face. Being on an angle of 9° to the new street, its latrine and part of the portico had to be destroyed and rebuilt when the street grid was laid (Fulford et al. 2018: 3, Boon 1974: 47; St. John Hope and Fox 1905: 346). Recent excavations have found an earlier (possibly Claudian) masonry building beneath the Neronian baths, which the excavators hypothesize is either a water lifting device or latrine of an earlier bathhouse, although its pubic or private function is unclear (Fulford et al. 2019: 2-3).

in *insula* XXXIII, in the southeast section of the settlement. Directly beside the baths (approx. 20 m at its closest) was a small brook running through the southeast corner of the town, and as an obvious source of water for the baths and latrines, likely played a significant role in the placement of the baths in this location. Geophysical survey of the area within the baths *insula* to the west has revealed it remained largely open space. The rest of the bath-block appears to have been largely residential; four houses have been uncovered. In the *insula* to the west of the baths (XXXV) was a Temple to Mars and more houses.

Duroverum Cantiacorum (modern Canterbury)

The only confirmed public baths from Canterbury were located just southeast of the centre of the town, alongside a number of other public buildings. Initially erected during the late first or early second century CE, they appear to have been part of a general public building program of the same date that included the forum and basilica, a large temple precinct, and the theatre. Each was located in its own *insula*, all of which converged on an intersection created by what has been provisionally identified as the town's *cardo maximus* and a smaller street running northwest to southeast. Although never fully excavated, the baths' northwest side seems

⁴⁶¹ Sorrell 1976: 54; Boon 1957: 102. Measurement taken from Wacher 2015: fig. 123.

⁴⁶² Fulford et al. 2018: 9.

⁴⁶³ St. John Hope and Fox: 1905: 339-340.

⁴⁶⁴ Wacher 2015: fig. 126: Fox 1948: 174.

⁴⁶⁵ There is another bathhouse lying partially under the modern St. George Street, in the *insula* east of the public baths *insula*. The initial phase of construction has been dated to c. 200-230 CE (Bennett 1982: 223-4, Frere and Stow 1983: 29). With at least twelve rooms (including reception, changing, and hot and cold rooms) it appears to have been too large and elaborate to have been the private bath suite of the townhouse nearby, but not large enough to have been a full public bath owned by the *civitas* (Wright 1948: 96; Frere and Stow 1983: 39). With no evidence that a *collegia* owned this bathhouse, it has been suggested that this was instead a privately owned public bath and so was not included in the survey (Frere and Stow 1983: 39; Wacher 2015: 196). Bennett also suggests that a large circular structure in the forum *insula* may be the laconicum of a public bathhouse south of the basilica; however, it has also been interpreted as part of a temple or shrine (1984: 54).

⁴⁶⁶ Bennett 1984: 50; Blockley 1987b: 17; Wacher 2015: 195.

⁴⁶⁷ For the dating of each of these public buildings or areas see Bennet 1981: 279-280; Cleary 1997: 492; Frere and Simpson 1970: 85, 110.

⁴⁶⁸ Helm et al. 2010: 26.

to have fronted onto this *cardo*, facing the forum-basilica area, which lay northwest of and directly across the *cardo* from the baths. ⁴⁶⁹ The temple precinct was to west of and adjacent the baths and the theatre was roughly 50 m to the southwest. ⁴⁷⁰

Private buildings have also been uncovered in the vicinity of the bathhouse. The only other building so far identified from within the baths *insula* itself was a large masonry building, thought to be a high-status townhouse, lying approximately 30 m northeast of the baths and contemporary in date. An umber of Flavian to mid-second century timber framed shops were located southwest of the baths, separated from them by the aforementioned northwest-southeast street. Further to the south-southwest of the baths was a large, courtyarded, late second century building of undetermined function. More shops and townhouses were found southeast of the baths; one of the houses, separated from the bath's palaestra by a narrow (5 m) street and timber fence, came to have its own bathing suite in the early fourth century CE.

Isca Dumnoniorum (modern Exeter)

When Exeter become a *civitas* in the Flavian period, what was once the centre of the legionary fortress was re-organized, and a number of new public buildings were erected, replacing the earlier military structures. This change included the conversion of part of the legionary baths into the town's basilica around 80/85 CE, while a new set of public baths was

⁴⁶⁹ The forum and basilica have not yet been located with one hundred percent certainty (Bennett 1984: 53-54).

⁴⁷⁰ The theatre *insula* was separated from the bath *insula* by a north-west to south-east street, which also separated the temple precinct from the forum and basilica. The measurement for the distance between the bath and theatre was taken from Bennet 1981: fig.2.

⁴⁷¹ Early second century CE (Helm et al. 2010: 27). Measurement taken from site plan in Helm et al. 2010: 26.

⁴⁷² This included what has been interpreted as an enameller's or bronze smith's shop (Goodburn et al. 1979: 336). ⁴⁷³ Blockley 1984: 10.

⁴⁷⁴ Wacher 2015: 198, 202; Helm et al. 2010: 25, 26; Blockley and Day 1981: 6; Blockley 1980b: 9-10. Measurement for street taken from Blockley 1987: 18. This townhouse seems to be later in date than the baths: its west wall reused the wall of the original portico or rear wall of the bath's palaestra (Blockley 1980b: 9-10).

started nearby, likely sometime after 90 CE, southeast and approximately 15 m removed from the south corner of the town's forum.⁴⁷⁵

Noviomagus Reg(i)norum (modern Chichester)

Although not fully excavated, the baths at Chichester seem to have fronted onto the *decumanus maximus* and were separated from the town's forum block by a large patch of gravel (a distance of approximately 55 m in total).⁴⁷⁶ It was initially thought that this gravelled area was the piazza of the forum; however, it was determined to cover too large an area. Wacher instead suggested that it was used to seal earlier demolished buildings, during a reorganization of the town centre,⁴⁷⁷ and may have served as the forum itself before the associated buildings were constructed.⁴⁷⁸ Lying 30 m north of the baths (and sharing its *insula*) was a second century house; another of the same date was found in the next *insula* north, just across the street from the first.⁴⁷⁹

Ratae Corieltauvorum (modern Leicester)

The so-called "Jewry Wall Baths" (Antonine in date) ⁴⁸⁰ of Leicester, the *civitas* capital of the Corieltauvi, is located in *insula* XXI and was part of a public sector located slightly west of the true centre of town. It lies approximately 50 m west of the Hadrianic basilica and forum, ⁴⁸¹

⁴⁷⁵ de la Bédoyère 2013: 144; Henderson 1988: 111, 115, fig. 5.12; Fox 1952: 17; 1973: 12; Bidwell 1979: 67. Measurement taken from Wacher 2015: fig. 151.

⁴⁷⁶ Down 1988: 41. Measurement taken from Wacher 2015: fig. 117. The baths in their present state belong to the fourth century; however, this bath overlays an earlier masonry structure which is believed to be an earlier bath, dating to the Flavian period (Down 1988: 19-20; Down and Rule 1971: 129).

⁴⁷⁷ This reorganization seems to have started following the death of the client King Cogidubnus between 70 and 85 CE and lasted into the mid second century when the gravel was laid (Wacher 2015: 262 and Down 1988: 28, 29). ⁴⁷⁸ Wacher 2015: 262.

⁴⁷⁹ Wacher 2015: 268. Measurement taken from Wacher 2015: fig. 121.

⁴⁸⁰ Kenyon 1948: 31 suggests a date of c. 150-160 CE, while Wacher (2015: 346-7) argues they were begun sometime around 145-50 CE and finished 155-60 CE, with a break in the middle, possibly resulting from a lack of funds.

⁴⁸¹ Measurement and date taken from Wacher 2015: 345, and fig. 154. Kenyon (1948: 28-32) suggests that the baths are built over a slightly older forum and *basilica*, reusing some of the basilica walls. Recent opinion, however, champions a different interpretation: the building was always intended to be a bathhouse and the different building

and 60 m north of a late second century temple, which has been identified as a Mithraeum. 482 Also within the bath *insula*, and just south of the baths themselves, was a second century private house.483

Venta Icenorum (modern Caistor St Edmund)

The only known public baths at *Venta Icenorum* (Caistor St Edmund) were located in insula XVII, immediately south of the main east-west street, and approximately 80 m southeast of the west city gate. 484 Just 40 m further west of the gate (and 65 m distance from the bath itself) was the Tas River, a possible water source for the baths. 485 Excavations have not yet identified the functions other structures the vicinity of the baths, the outlines of which can be seen in the results of the 2007 geophysical survey by D. Bescoby. 486

Venta Silurum (modern Caerwent)

The public baths of Caerwent are located in the northwest corner of the *insula* (XIII) directly opposite and south of the forum/basilica (insula VIII) in the central region of the city, at the southwest corner of one of the two major intersections in this town. 487 They are separated

phases identified by Kenyon were the result of a temporary lapse in building and a change in plan (Wacher 2015: 346).

⁴⁸² Measurement from Wacher 2015: fig. 154. The baths and temple share the same *insula*. The macellum, located in the insula north of the forum and basilica (Wacher 2015: fig. 154), rounded out the public buildings in this area. For identification of this temple as a Mithraeum see Sauer 2004.

⁴⁸³ Wacher 2015: 356.

⁴⁸⁴ Bowden 2013: 149; Bowden and Bescody 2008: 328; Frere 1971: 20. Measurement taken from The Norfolk Archaeological Trust's plan of Venta Icenorum as reproduced in Bowden and Bescody 2008: fig. 5, along with Wacher 2015: fig. 112 and Frere 1971: fig. 1. The baths were thought to have been originally erected in the early second century, but then reconstructed at the end of the same century (Frere 1971: 20).

⁴⁸⁵ Measurements taken from Wacher 2015: fig. 112 and Frere 1971: fig. 1. A drain has been found under the main east-west street (Bowden and Bescody 2008: fig. 7), which may have supplied the baths with water from the river to the west, although Bowden and Bescody suggest that it was fed by a spring to the northeast of the town (2008: 331). ⁴⁸⁶ Bowden and Bescody 2008: fig. 6, fig. 7.

⁴⁸⁷ As the north gate is one *insula* farther west than the south gate, there is not one main north-south street (i.e., a cardo maximus) at Caerwent. Instead, there are two main cardines, each leading in from their respective gates and meeting the decumanus maximus on the southeast and southwest corners of the Forum insula. The baths are on the southwest corner of the decumanus maximus and the section of street leading in from the south gate.

from the forum entrance by the main east-west *decumanus* of the town (25 m), and interestingly may predate both the forum and basilica by a few decades. This of course does not rule out the presence of an earlier forum/basilica complex on the same site, and there is also the possibility that in its earliest phase the bath-building had a different function. The baths shared their *insula* with two domestic buildings, at least one of which was initial erected in the later first century. In the *insula* (IX) northeast and kitty-corner to the baths was a fourth century Romano-Celtic temple, which had replaced a timber house and associated workshop, and later strip buildings. A priest's house and shops were also found to occupy this *insula*.

A second structure in the southeastern section of the town has been labelled as a bath in numerous published maps of Roman Caerwent. It is situated about equidistance (approx. 100 m) between the south gate and southeastern corner of the town, and 25 m north of the south defence wall. Again Rather confusingly, it is recorded on maps of Roman Caerwent as lying directly in the line of the proposed road separating *insulae* XIX and XX. Again Despite having many of the amenities one might expect of a public bathhouse (including *frigidarium*, *tepidarium*, *caldarium*, *sudatorium*, and *apodyterium*, etc.), the bath's original excavator Octavius Morgan identified it

⁴⁸⁸ A worn "second brass" of Vespasian found in a conduit dates the first period of the bath-structure to the end of the first century CE (Nash-William 1930: 232), while the forum and basilica were constructed in the early second century CE, possibly in the late Trajanic or early Hadrianic period (Wacher 2015: 381; Rogers 2012: 1; Brewer 1993: 65). Measurement taken from Wacher 2015: fig. 170.

⁴⁸⁹ Wacher 2015: 379.

⁴⁹⁰ Nash-Williams 1930: 231; Ashby 1904: 105.

⁴⁹¹ Wacher 2015: 386; Brewer 1993: 58, 59. They are approximately 25 m removed from one another (Wacher 2015: fig. 170).

⁴⁹² Wacher 2015: 386.

⁴⁹³ Measurements taken from Wacher 2015: fig. 170.

⁴⁹⁴ Wacher 2015: fig. 170; Martin et al. 1901: fig. 1. It is also labelled as a bath on the maps created by CADW (1923) the Welsh Government's historic environment service (Cadw Guardianship Monument Drawings, Cadw Ref. No:221/1A11, Archive Number 6029772 https://coflein.gov.uk/en/archive/6029772/ and CND Planning and Forum Heritage Services 2016: fig. 4 (https://www.monmouthshire.gov.uk/app/uploads/2016/04/Caerwent-CA-Appraisal.pdf)

as a private bath suite because of its size (approximately 9.5 m by 10 m).⁴⁹⁵ Excavation has not yet revealed what other types of buildings populated this section of the town.

Verulamium (modern St Albans)

At St Albans, a mid-first century CE masonry structure has been identified as an early bath, ⁴⁹⁶ making it the earliest urban bath so far discovered in Britain and one of the earliest masonry buildings in the town. ⁴⁹⁷ Although only partially excavated, this structure appears to have covered the north-eastern section of *insula* XIX and lies between two important town landmarks: the forum and northeast/ "Colchester" Gate. Approximately 40 removed from the northeast gate, ⁴⁹⁸ the baths appear to have faced onto the town's *cardo maximus* which linked the "Colchester Gate" with the "Silchester Gate" to the southwest. Bordering the bath *insula* to the southwest is the town's northern-most *decumanus*, on the other side of which sits the forum and basilica complex (*insula* XII). ⁴⁹⁹ Other notable features nearby the bathhouse include a late first century 5000 m² open, gravelled area of land on the southeast side of the bath *insula*. Excavators suggest that it may have served as an additional open-air market area, perhaps for

⁴⁹⁵ Morgan 1885: 432. It has not been included in the finally count.

⁴⁹⁶ Wacher contends that the building's internal buttressing, along with the tile facing preserved in one corner of an inner wall, "as though either a hypocaust or the lining of a plunge-bath was intended," strongly suggest that this building is a bathhouse (2015: 225). Niblett and Thompson have also identified this as a bath (Niblett 2001: 65; Niblett and Thompson 2005: 85).

⁴⁹⁷ Niblett and Thompson 2005: 88; Wacher 2015: 225.

⁴⁹⁸ This measurement is an approximation based on the shortest distance between the baths and the gate and has been taken from R. Niblett's Map of Verulamium (2019) via the St Albans Museums (https://www.stalbanshistory.org/archaeology/the-roman-city-of-verulamium/map-of-verulamium).

⁴⁹⁹ Niblett 2001: 65. The baths lie approximately 110 m from the northeast corner of the forum/basilica block, once again in accordance with the scale provided on Niblett's 2019 Map of Verulamium. Although the forum in its present form dates to the Flavian period, dedicated in 79 CE (Wacher 2015: 223-224 and Sorrell 1976: 38) and therefore dates to after the initial construction of the bathhouse, masonry remains beneath it may belong to Neronian predecessor, destroyed during the Boudican revolt (Niblett et al. 2006: 98).

cattle like was seen at Wroxeter.⁵⁰⁰ Approximately 175 m west of the baths (*insula* XIV) was a row of timber-framed workshops originally dating to the Claudian period.⁵⁰¹

The abandonment of these baths by the end of the first century CE was followed by the construction of another bath in the north corner of *insula* III, at the end of first or beginning of the second century CE. ⁵⁰² This bath was located in the east-central section of the town, and unfortunately, excavations have not yet revealed the function of many of the buildings which reside in this area of the walled city. ⁵⁰³ There is a possible second or early third century CE *mansio* 55 m southwest of the baths (and in the same *insula*), and a mid-first century clay and timber building that later became a commercial site (complete with brewery and metal workshop) 20 m to the north. ⁵⁰⁴ These baths were also one *insula* or approximately 150 m removed from the southeast entrance of the forum and are connected to it by Street 12, which fronted the bath's western side. ⁵⁰⁵ Moreover, the section of Watling Street which enters the city from the roughly the southeast via the London Gate, leads directly to *insula* III, ⁵⁰⁶ funneling potential customers directly to this *insula*.

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⁵⁰⁰ Niblett and Thompson 2005: 122, 155.

⁵⁰¹ Wacher 2015: 221; Frere 1972.

⁵⁰² There is evidence of burning (possibly Boudican) to the *Insula* XIX Baths and although they continued in use after this, Niblett suggests that they were out of use by the end of the first century CE (2001: 77). It is possible the new baths in *insula* III were built to replace these, though limited excavation has resulted in slim dating evidence. Pottery sealed below the floor of the *Insula* III Baths indicates that these baths were originally built in the Flavian (possibly Trajanic) period, over a gravelled surface (Niblett et al. 2006: 71; Niblett 2001: 77).

⁵⁰³ Niblett et al. 2006: 58-59, 95.

⁵⁰⁴ Measurements taken from Niblett et al. 2006: fig. 5.

⁵⁰⁵ This measurement was based on the shortest distance between the forum entrance and bath complex in the site plans provided by Niblett et al. 2006: 92, fig. 1 and Rogers 2012: fig. 1.
⁵⁰⁶ Limited excavations in this area suggest that Watling Street may have once run through this *insula* but was built

⁵⁰⁶ Limited excavations in this area suggest that Watling Street may have once run through this *insula* but was built over during the Flavian period. There is also the possibility however, that the gravel may be from an open courtyard rather than a street surface (Niblett et al. 2006: 58).

There is a third bath associated with the town; however, it is extramural and is thought to be more closely linked with Fossy Lane Sanctuary, located 50 m north of the baths, than to the city itself and so will not be included in this survey. ⁵⁰⁷

Viroconium Cornoviorum (modern Wroxeter)

Wroxeter, the *civitas* capital of the Cornovii, had an interesting urban development. The public baths were originally situated across the main north-south *cardo* road (approximately 27 m) from where they ended up, beneath what would later become the forum-basilica complex. Those responsible for the erection of the baths left this original set unfinished (at the end of the first century CE) and started afresh, across one of the major north-south roads, around the time of the relaying of the city grid (the 120s). The completion of these new baths was not quick; the initial layout of the baths in their new location in the mid 120s was followed by a 30 year hiatus in building, and they were only finished in the mid-second century CE. The baths took up almost their entire *insula*, except for the southwest corner in which there was a small *macellum*. Started

⁵⁰⁷ Niblett 2001: 111.

⁵⁰⁸ White and Barker 1998: 73; Sorrell 1976: 62. The forum and basilica complex are dated to 129/30 by an inscription of such high quality that it has been suggested that the craftsmen were sent there for that purpose (Barker et al. 1997: 1).

⁵⁰⁹ Sorrell 1976: 62. The redesign of the town plan was likely because of Hadrian's visit to Britain in 122 CE, although it is not known if he actually visited this town (Barker et al. 1997: 1-2).

⁵¹⁰ White and Barker 1998: 89; Webster 1993: 51. This break in building was perhaps due to financial constraints incurred by the general re-laying a new town grid and the erection of accompanying public buildings (Barker et al. 1997: 18, 50), or more specifically the rebuilding the forum, destroyed by a fire in the Antonine period (de la Bédoyère 2013: 145).

⁵¹¹ Webster 1993: 50-51; Webster 1988: 142.

Discussion:

In total, the location of the public baths in thirteen Romano-British towns were surveyed. 512 At least ten baths were located in a public, high-traffic, area of the town alongside other public buildings. Eight baths in six towns were located on major thorough fares (with the *insula* XIII Baths at Caerwent at the intersection of two important roads). Seven were near the town's forum, while another seven baths in seven different towns were located near temples, one near a theatre, and another a *macellum* (at Wroxeter). We also have many baths (six) for which there is at least one domestic structure nearby; however, we can only say with certainty that the Lower Baths from Lincoln and the *insula* XVIII baths from Silchester, were in primarily residential areas. This uncertainty is because many baths are excavated in near isolation and because the excavation of domestic areas has lagged behind public areas, and thus baths surrounded by houses is likely even more common than demonstrated in this survey. The same is likely true for commercial, industrial, and artisanal areas.

Two baths (both from St Albans) were surrounded by shops and/or workshops, and those from Lincoln, Canterbury, and Caerwent also had at least one industrial or commercial building close by. Another two baths were near a town gate, while one (the Upper Baths at Lincoln) were located almost equidistance between a gate and the forum, and another (the Air Raid Shelter Baths at York) were at the edge of the city near the walls. Three towns (London, Silchester, and Caistor St Edmund) had a bath near some form of naturally occurring water source (a river, stream, and/or springs); for both London and Silchester there is evidence of the use of these water sources by the baths, but at Caistor St Edmund, the case is less clear. A drain has been

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⁵¹² Of the thirteen Romano-British towns surveyed, there were only three in which multiple public baths have positively been identified: Colonia Eboracensis (York), Verulamium (St. Albans), and Lindum (Lincoln). The rest have only one extant public bathhouse, although many (London most certainly) would have had more than one.

found under the street just north of the baths;⁵¹³ however, its connection to the bath or to the river (if any) is unclear. The towns of Chichester, Colchester, Exeter, Leicester, and Wroxeter, also had natural a water source nearby (the Levant River, Colne River, Exe River, Severn River, Old Soar River, and the Ouse River, respectively) but have not yet produced evidence for baths built near to them.

Conclusion:

This chapter set out to answer three main questions: 1) What were the favoured urban locations for public baths? 2) Was there regional variability in preferred locations and did status or settlement history have an effect on bath placement? and 3) Are practical considerations (i.e., the need for fuel, water, customers, etc.) reflected in the choice of bath location?

In all three provinces considered in this chapter, high traffic locations were the preference, with the forum being the most commonly chosen location for the baths. At nearly every city in which there is more than one known bath (and where the forum has been located), there is a bath in the vicinity of the forum. Exceptions to this general trend include the baths from Lucus Augusti, Ilici, Asturica Augusta, Tarraco, Baetulo, and Calagurris Iulia Nassica in the Iberian Peninsula, as well as York and Verulamium in Britain.⁵¹⁴

When the city has two or more baths, the earliest extant is typically the one built near the forum. There are four exceptions to this trend: two come from Italy (Ostia and Pompeii) and two from Spain (Barcino and Clunia). At Ostia, the earliest extant public baths are the Baths of the Swimmer dating to between 80-90 CE which were located in a commercial district and beside

⁵¹³ Bowden 2013: 149; Bowden and Bescody 2008: 328; Frere 1971: 20.

⁵¹⁴ At Tarraco, Baetulo, and Verulamium there is a bath just outside the forum area, and at Calagurris Iulia Nassica and York the position of the forum has not yet been confirmed.

the Sanctuary of the Bona Dea.⁵¹⁵ The baths near the Forum (the appropriately named Forum Baths) date to the Antonine period and are potentially the latest extant pubic baths known from Ostia, following the Porta Marian Baths and the Baths of Neptune which were both constructed in the Hadrianic/Antonine period. We do not know where the Ostia's earliest baths were located, since under Domitian the ground level of all new constructions was raised by at least a metre, ⁵¹⁶ and then in the second century CE, the city was completely re-built, obscuring much of the earlier architecture below, leaving us with the Ostia known today.⁵¹⁷ At Pompeii, the earliest baths are the fourth or fifth century Stabian Baths, located in a residential area near the centre of town, at the intersection of the cardo and decumanus maximi. I would suggest that it is possible that the earliest (extant) baths were not built near the Forum in Pompeii because the city did not yet have a forum, or at the very least the forum had not become the centre of civic and commercial activity in the city at the time of the Stabian Baths' construction in the fourth or fifth century CE. This seems to have happened by the time of the Social War (and the founding of the veteran colony) when the east side was filled with shops and workshops and the west and south sides with public buildings.⁵¹⁸ It is into this developing central hub that the Forum Baths were inserted in the later first century CE.

In Barcino, the extramural baths just outside of port gate pre-date the baths near the forum which were a product of local benefaction from L. Minicius Natalis and his son. There is

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⁵¹⁸ Ling 2007: 119.

⁵¹⁵ The earliest baths identified from Ostia, thought to date to the late Republic or early principate, are known only by inscription mentioning C. Cartilius Poplicola and an associated *balneum* (*CIL* XIV.4711), while the earliest physical bath remains belong to the Julio-Claudian period. One, from the southeastern district of the town has only been partially uncovered, while the other, the Baths of Invidious on the Semita dei Cippi, was largely rebuilt in the first half of the second century CE and is one of the numerous private baths (*balnea*) so far uncovered at Ostia (Meiggs 1973: 406).

⁵¹⁶ Packer 1971: 78. This Domitianic ground level is best attested in the area around the Baths of Neptune and the Barracks of the Vigiles to the north (Meiggs 1973: 64-65).

⁵¹⁷ Despite this massive rebuilding program in the second century the outline of the earlier rectangular fort can still be traced at the heart of the town (Meiggs 1973: 16).

no clear explanation for the building of extramural baths before ones inside the town. It is entirely possible that the very earliest town public baths have not been uncovered through excavation. The dates of the baths of Clunia are not secure. The Forum Baths have been suggested to date to the beginning of the first century CE, roughly contemporary with the erection of the Los Arcos I Bath (with which they share style and materials),⁵¹⁹ possibly spurned on by the change in status to *colonia* after Galba was named emperor in the city. Alternatively, a date of the second half of the first century CE has also been tentatively suggested.⁵²⁰ If the Los Arcos I Baths were erected earlier than those in the Forum, it may have been down to the ease of supply water to these baths— the Los Arcos baths were directly above underground aquifers which provided them with easy access to water.

Interestingly, there are four towns in Italy and three towns in Spain in which there are two baths near the forum. Secondary Sometimes the earlier bath is replaced by the later baths (e.g., Herdonia) while others, like the Baths of Popilio (Augustan or Tiberian) and the Baths of the Wall" (midfirst century CE) from Augusta Praetoria Salassorum and the Theatre and Monumental Baths at Segobriga seem to have had overlapping times of use. A community may have chosen to have two baths in the general vicinity of the forum for a number of reasons. It is possible that one bath catered to a specific clientele or offered a specific bathing experience or that the earlier bath was soon outgrown and could no longer individually meet the needs of all people frequenting the forum area daily (and thus a second baths was introduced). Moreover, with the exception of the

⁵¹⁹ Pavía Page 2018: 679

⁵²⁰ Núñez Hernández 2008: 189.

⁵²¹ Italy: Augustan Praetoria Salassorum, Grumentum, Cumae, Vicus Laurentium Augustanorum, Herdonia; Spain: Tarraco, Lucentum, Segobriga, Bracara Augustus.

⁵²² The Baths of Popilio went out of use in the Flavian period and it has been tentatively suggested that "Baths of the Wall" were built sometime in the middle of the first century CE and so the overlap of usage would have been short. (Pavía Page 2018: 416-17, 423). The Late Republican Theatre Baths and Flavian Monumental Baths were both in use until the Theatre Baths went out of use in the late fourth or fifth century (Pavía Page 2018: 440, 446-47).

previously mentioned baths from Augusta Praetoria Salassorum and those at Vicus Laurentium Augustanorum, when two baths are located near the Forum of a town, they are typically a sizeable distance from one another (e.g., approximately 280 m at Augusta Praetoria Salassorum, 210 m at Grumentum, over 300 m at Cumae, etc.).

The forum is not the only structure or landmark near which we see two baths. The East and West Port Gate baths at Barcino, for example, both stood outside the southern city gate which led to the city's port. Both were functioning at the same time, and it has been suggested that they were for the different sexes. Similarly, the Sant Miguel St. Baths and the Apodaca Street Baths were both in the port area of Tarraco outside the city walls.

At towns for which the location of only one bath is known, the forum is still a very common location for baths. As the public heart of the city, baths near the forum were perfectly situated to serve a large possible clientele, and as discussed in the introduction to this dissertation, even the publicly owned baths needed to draw in customers. It is important to note, however, that the high number of baths found near the forum may also be influenced by sampling bias – the forum has traditionally (and in many cases still today) been one of the first areas identified and excavated in a Roman period city.

In all three regions surveyed, it was common for baths to be located on and open towards a major street in the city. Similarly, it was also common (although to a slightly lesser extent) for baths to be located near the main intersection of the *cardo maximus* and *decumanus maximus* (where such existed and have been identified).

⁵²³ Miró i Alaix 2014: 881, 882.

⁵²⁴ Both baths were in use during the third century CE. The Apodaca Street Baths went out of use in the early forth century and the Sant Miguel St. Baths in the sixth (Pavía Page 2018: 335, 346-47).

Another common location for baths in the survey regions was in proximity to domestic structures (twenty baths in Italy, twenty baths in the Iberian Peninsula, and six baths in Britain). Nevertheless, the number of baths that can be said to be in largely residential areas is relatively low, ⁵²⁵ likely because full excavation of the *insulae* surrounding the baths is quite rare, which is partly the result of modern development and partly because the excavation of domestic spaces has traditionally lagged behind that of public and monumental structures.

Natural water sources (springs, aquifers, streams, rivers, and the coastline) were also a repeated location for baths, although they were much more common in the Iberian Peninsula (with ten examples) than in Britain (three examples) and Italy (no examples). Moreover, in most cases we do not know if or how baths made use of them. Exceptions to the include Lucus Augusti where the baths on the north bank of the Miño River made use of a naturally occurring sulphurous spring, the Miño River itself, and abundant aquifer springs in the area ⁵²⁶ and Clunia where the Los Arcos Baths (I and II) similarity made use of auriferous springs located beneath them. The relative scarcity of baths located near natural water sources (especially in Italy and Britain) may suggest that they were not such an important source of water for baths in these areas, and that they relied more heavily on aqueducts. ⁵²⁷

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⁵²⁵ The baths which can be said to reside in largely residential areas of their city include, from Italy: the Fregellae Baths, Pompeii's Stabian, Central, and Suburban Baths, and the Baths of the Southern District of Velia; from Spain: the Duque de Hornachuelos Street Baths from Corduba, the Nova Urbs Baths of Italica, the Conímbriga Baths 3, and the *Insula* of Carvalheiras Baths of Bracara Augusta; and from Britain: The Lower City Baths from Lincoln and the *Insula* XVIII Baths of Silchester.

⁵²⁶ Carreño 1992: 345. These baths date to the second quarter of the first century CE (Gonzalez Soutelo 2012: 179). ⁵²⁷ Although common sense dictates that baths would make use of aqueducts when available, this reliance difficult to confirm. Evidence of aqueducts had been found at Caerwent, Colchester, Leicester, and Lincoln, Wroxeter, and perhaps London and St. Albans, however, their direct connection to the baths found in these towns is still unclear (See Burgers 2001; 1997; Ingate 2019 esp. Chapter Three for discussions of aqueducts, wells, cisterns in Roman Britain and difficulties with the evidence). The same is true can be said for Italy, where although aqueducts have been identified in a large number of cities, their relationship to the bath of the city are typically poorly understood.

A number of the baths near to natural water sources or the harbour/port were also outside the city walls in peri- or suburban settings. Britain is exceptional in this case – none of baths surveyed were located near a port or outside of the city except York where one of the baths was located in the *canabae* of the fort which lies across the river from the main hub of the *colonia*, and St Albans where the extramural Fossy Lane Baths seem to have been associated with the Fossy Lane Sanctuary to its north. This is perhaps not surprising given that none of the towns, aside from London and perhaps Exeter and Caerwent, have confirmed ports and that in many cases the towns had plenty of open space into which to a large bath building could be inserted and therefore had no need to build outside the walls.⁵²⁸

Other high traffic locations including around temples, sanctuaries, and theatres were also very popular for baths all three provinces, with other sport, leisure, or public buildings like stadia, circuses, amphitheatres, and *macella* less prevalent. Gates too proved to be another popular location in all three provinces, although in Spain and Portugal especially, likely to service those coming into the urban centre.

As the above discussion has illustrated, there is no discernible regional variability in preferred bath location in the Roman provinces surveyed in this chapter. Baths were repeatedly found in high traffic areas like the forum, the main intersection, gates, and nearby to commercial, industrial, and artisanal buildings in all three provinces surveyed. About half of the baths in Italy and the Iberian Peninsula and one third of the baths in Britain had evidence of residential architecture nearby. The only possibly exceptions were the harbour/port baths and baths near

⁵²⁸ Many of the cities of Roman Britain do not seem to have been densely packed. This is especially clear in Caistor St Edmund (Bowden 2013: 152), however, there is also evidence of this in Canterbury, Silchester, and Leicester. Caerwent seems to be exceptional (Wacher 2015: 388; Frere 1949: 156).

⁵²⁹ The lower number of baths near other sport, leisure, or public buildings is not surprising given that fewer of these structures have been in the cities surveyed than temples and theatres.

natural water sources in the Iberian Peninsula – neither Britain or Italy had much evidence for baths serving the harbour or port or baths near and making use of natural water sources. This, however, may to the result of sampling and/or excavation bias: very few of the cities in Britain and Spain and Portugal surveyed had a known port and water supply is understudied in all the provinces.

Determining the effect of the settlement history and status of the cities on the distribution of baths within the cities is very difficult to do. This is in part because not many of the cities surveyed have been fully excavated let alone down to their foundations or transitional period levels. Moreover, many of the baths are built during redevelopments of the city in times of prosperity and larger monumental building programs (See Chapters Three and Four for a discussion of this phenomenon in Roman Greece and Britain). This means it is difficult to know, in many cases, where the first baths were built upon the founding of ex novo cities and how and where the first baths were integrated into pre-existing urban landscapes. That said, the survey results suggest that settlement history did not have a discernable effect on bath placement. Cities which had pre-existing urban landscapes into which the baths had to be integrated had baths in most of the same locations as those erected ex novo. Status too seems to have made little difference in the distribution of baths. For example, in Italy, towns of all statuses from colonia to municipium to those without known status had baths in every category except the main intersection or thoroughfare and commercial/industrial areas where towns with no known status do not appear. In Spain and Portugal, towns without status were the only category that did not have an example of a bath near a temple or theatre, or in a suburban or per-urban area. The conventus capitals of the Iberian Peninsula showed no examples of baths near water sources, a port or harbour, gates or the edge of settlements, industrial/commercial/artisanal areas, suburban

or peri-urban locations, and temples or sanctuaries. That town with no status and *conventus* capitals (in Spain and Portugal) show up in fewer categories than the *coloniae* and *municipia* is not surprising given the fact that fewer of them were surveyed.⁵³⁰

The repeated preference for high traffic areas as well as areas close to other public buildings and gathering spaces is likely because those responsible for erecting bathing facilities were doing so for the same purpose across the empire and were faced with the same considerations in choosing their location. The most important consideration for baths placement seems to have been visibility and ease of access both of which helped to draw in customers. The clustering of more than one bath near areas of high visibility and accessibility (most notably the forum) as seen in Italy as well as in Spain and Portugal suggests that this is the case. This clustering also may suggest that competition was not a great concern, or at least that there was enough of a customer base to warrant two built near to one another.⁵³¹ As will be more fully demonstrated in Chapters Three and Four, space was not always immediately available in these high traffic locations and thus those responsible for erecting the large Roman baths sometimes waited until a larger-scale refurbishment of the city opened up the desirable space, rather than build a bath in a less desirable area. The importance of spatial connections to specific buildings is also very much reflected in the locations chosen for the baths, with temples/sanctuaries and theatres being the most commonly repeated. 532

⁵³⁰ As mentioned in the introduction, fewer cities and towns with no status and *conventus* status (in Spain) were included in the survey because less of them had the information available; colonies and the seats of the Roman governors were generally more fully excavated and published.

⁵³¹ Not every city surveyed had baths clustered near to one another; some like Florentia had a more even distribution. It is important to note, however, in many of the cities and towns surveyed, not enough excavation has been done to reveal the true distribution of the baths.

⁵³² These considerations are largely the same as those outlined by M. Trümper in her 2013 survey of Greek bath locations (Trümper 2013b: 35) and are discussed more fully in Chapter Three.

Chapter 2 The Location of Roman Public-Sector Baths in modern Greece, southern Albania, and western Turkey

Much like the previous chapter, there are three main goals for Chapter Two, this time focusing on six provinces in the eastern half of the Roman Empire. The first is to identify the intramural locations for Roman-style public baths and the frequency with which these different locations were chosen. The second is to show whether there was any variation of bath placement that could be correlated to regionality, settlement history, or status. The third goal is to determine the extent to which practical considerations (including the need for customers, water, and fuel) are reflected in the locations chosen for the baths.

Methodology

Using the same methodology outlined in the first chapter, a survey of published site plans, excavation reports, as well dedicated bath publications of the public Roman baths from thirty-seven cities and towns in modern Greece and southern Albania (the Roman provinces of Achaia, Epirus, Macedonia, and Crete and Cyrenaica) and western Turkey (Asia and Lycia and Pamphylia) was completed to determine their urban distribution and location (both larger zone-type and the specific buildings or landmarks). These areas of the eastern empire were chosen because of their pre-existing urbanism and public baths and bathing culture. The towns and cities surveyed had both varied settlement histories (from *ex novo* foundations to very well-established cities) and statuses (including seats of the governor, *coloniae*, and cities without any official title). The baths included in the survey are those which are considered to be public – open to the general public, (although as explained in the dissertation introduction) not always owned and

operated by the town. All towns and cities included in the survey were chosen as case studies, because of their varying urban settlement histories, their pre-existing Greek urbanization and bathing culture, as well as the availability of information about the urban situation of their public baths.

The survey will begin with Greece and southern Albania and the move onto western Turkey. For each of these two regions, the cities and towns have been categorized by their legal status (i.e., seats of the governor, *coloniae*, and ending with small towns with no known status, as applicable), then by Roman province moving from north to south (Macedonia, Epirus, Achaea ,Crete and Cyrenaica in Greece and Asia, and Lycia and Pamphylia in Turkey), and finally alphabetically within each province. The urban situation of each bathing facility is described with as much detail as possible, using measurements when available. As in Chapter One, in some cases, where there is some uncertainty surrounding a structure's function, accessibility, or the function of surrounding buildings, the urban location of the bath is still described (to give a fuller picture of the state of bathing in each town) but not included in the final count (see Appendix I for full counts).

ACHAEA, MACEDONIA, EPIRUS, and CRETE (Greece)

Although the Romans had been drawing influence from the Greeks for centuries, it was not until end of the third century BCE that Roman expansionist interest turned to Macedonia and the Greek peninsula. The area was eventually annexed in 147/146 BCE,⁵³³ and by the Augustan period the region had been split into the provinces of Achaea (27 BCE), Macedonia (147 BCE),

⁵³³ Macedonia was made into a province in 148/7 BCE following the Rome's victory in the Fourth Macedonian War, and in 146 the Romans defeated the Achaean League in the Achaean War and gained control of the rest of the Greek peninsula.

and Crete and Cyrenaica (67 BCE), with Epirus Nova added under Trajan (between 103-114 CE).

Greece had a long and varied history of urbanism. The Greek *poleis* were diverse in terms of their organization and layout. While some grew organically (e.g., Athens), others adopted a more structured approach implementing orthogonal planning (e.g., Sikyon and Thessaloniki). Finding these urban centres and their institutions sufficient to their administrative needs, the Romans did not set up many ex novo cities or colonies. In fact, rarely did Rome exert direct control over a Greek city's urban development. With the notable except of Corinth, where the pre-existing Greek city was destroyed and rebuilt, Greek institutions and urban structures largely continued in use throughout the Roman period, and Roman architectural types like fora, temples, and baths were generally integrated piecemeal into the pre-existing urban landscape (alongside the pre-existing Greek structures) as space and funding allowed. Typically, this construction often occurred during periods of prosperity or imperial munificence when major urban renovations were undertaken (e.g., at Athens). The introduction of these Roman-style building types, including the baths, was not enforced by the Roman administration, and although imperial beneficence sometimes contributed funding to the erection of a public or civic structure, the impetus for such urban development typically came from propertied elite via civic competition and euergetism. The most direct form of Roman influence came via political and administrative changes, including the introduction of property requirements to hold office and for council membership as well as forced population migrations.

Like in all the provinces surveyed for this study, the extent of excavation of Roman baths in Greece and the information available about their dates, phasing, usage, and urban placement is

variable.⁵³⁴ Many baths have been excavated in isolation, with little known about the structures that surround them. This poor understanding of the urban context of these facilities makes it difficult to determine local distribution patterns,⁵³⁵ and thus only those sites (and baths) have been chosen where some information is known about the surrounding urban context and structures, beyond the bath's topographical location in the city. Also contributing to the difficulty of understanding the baths' urban placement is the fact that many of the cities in Greece have experienced continuous occupation since the Roman period, meaning that overall city plans and reliable maps are in short supply.

I have limited my scope to baths from Greco-Roman cities and towns in what is now the territory of modern Greece and southern Albania, which comprises parts of the Roman provinces of Achaea, Macedonia, Epirus, as well as the Greek islands of Euboea and Crete. My survey considers the locations of public Roman baths from twelve Greco-Roman cities, all of which date from the first century BCE to third centuries CE (Figure 9). As previously mentioned, the towns surveyed are organized first by status (seats of the governor, *coloniae*, and towns with no known status), then by province (moving north to south), and finally alphabetically within each provinces.

⁵³⁴ Baths are no longer visible, as they have either been destroyed or re-sealed by modern development.

⁵³⁵ Monika Trümper has identified the same problem (2013b: 37).

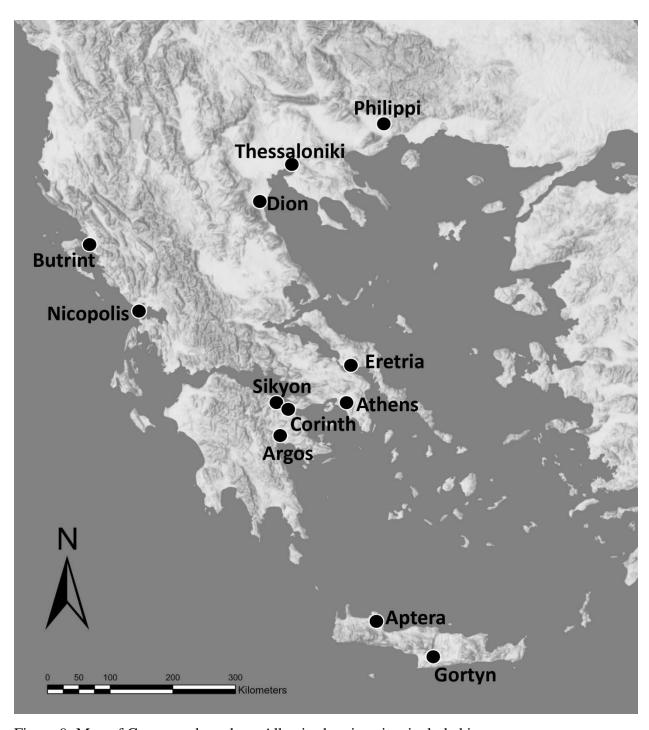


Figure 9: Map of Greece and southern Albania showing sites included in survey.

Seats of the governor

Thessaloniki, Macedonia

In his 2016 dissertation, A. Oulkeroglou identifies 16 non-domestic Roman baths in Thessaloniki, the capital of Roman Macedonia, located in the Thermaic Gulf of the northwest Aegean Sea. Only three of these bathing complexes, however, can be said to have been both public and positively dated to the third century CE or earlier and are therefore included in this survey. At over 5000 m², the "Baths of Saint Demetrios" is one of the largest of the extant baths at Thessaloniki. 536 Built at the end of the second or beginning of the third century CE. 537 these baths stood in a prominent position in the city on a terrace approximately 120 m north of and overlooking the Roman forum (which had an upper and lower terrace, both of which were below the level of the baths' terrace). Michel Vickers has suggested that there must have been an intermediate terrace between the terrace on which the baths sat and the terrace of the Upper forum. He goes on to hypothesize that this middle terrace held a Hellenistic stadium, based on the size of the area and on a Byzantine literary source which describes that stadium as being in the vicinity of the Church of St. Demetrius (under which the baths sit). No archaeological evidence has, as of yet, been found to support or refute his claims. 538 Two buildings have been found at the southeast corner of this intermediate terrace, the larger of which, although originally identified as a library, has now been interpreted (along with the smaller one) as temples of the imperial cult, possibly making this entire area a sacred space.⁵³⁹

⁵³⁶ Oulkeroglou 2016: 126.

⁵³⁷ Oulkeroglou 2016: 131; Vitti 1996: 241.

⁵³⁸ Vitti 1996: 95; Vickers 1972: 165

⁵³⁹ Evangelidis 2014: 340; Stefanidou-Tiveriou 2009: 620-3.

Approximately 300 m to the southeast of the forum, traces of another extensive public bath complex (possibly larger than the ones discussed above) have been found under the Church of Achiropoietos. The baths are bordered on their south side by the *decumanus maximus* and a *cardo* on the west. Nothing else is known about their immediate vicinity. Below another church, that of Hagia Sophia, about 160 m to the southwest of the baths below the Church of Achriopoietos, there is evidence of Thessaloniki's largest bath complex. Not much is known about the surrounding area here either, although G. Velenis and P. Adam-Veleni have suggested that these baths could have served the theatre-stadium (which they place in the southeastern area of the city) rather than (or perhaps in addition to) a set of baths hypothesized to sit south of the "Baths of Saint Demetrios." 540

Nicopolis, Epirus

The Augustan *ex novo* settlement of Nicopolis was the capital of the Roman province of Eprius and was located on the western coast of modern Greece. This site has seven provisionally identified baths: five within the city walls, and two extramural facilities (the baths in the Gymnasium, and the so-called "Proasteion Baths" or "North Baths"), both of which were located in the suburbs north of the city proper. ⁵⁴¹ Unfortunately, none of the five baths within the city have been systematically excavated or published. Therefore, it is difficult to say, first, that all were indeed baths, and second, which were public-sector and which were privately owned. Three of the five (the "Central Baths" (or "Large Baths"), the baths south of the *odeum*, and "Baths 32"), however, are more well-known than the others and have been positively identified as baths in scholarship. Moreover, based on their size, plan, location, and (in the case of 'Bath 32')

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⁵⁴⁰ Velenis and Adam-Veleni 1989: 241-256. The later two baths have not been included in the final survey count.

⁵⁴¹ Zachos and Kazazis 2015: topographic map of Nicopolis.

Baths, likely a Severan addition to the city,⁵⁴² are located in the southeastern sector of the Roman-period walled city, in what appears to be a largely residential area. It is surrounded on all sides by houses, most notably the initially misidentified 'Baths of Cleopatra', which are actually part of a house, approximately 65-70 m to the south.⁵⁴³ Konstantinos Zachos also indicates that the Central Baths' south side likely opened onto the *decumanus* which led into the city from the East Gate.⁵⁴⁴ They also lie about 100 m west of a *nymphaeum*.⁵⁴⁵

Another public bathing facility was located directly south of the *odeum*, west of the Central Baths. The north side of these baths are actually in contact with the *odeum's cavea* wall, and appear to pre-date it, making them either Augustan or pre-Trajanic in date. It is though that the *odeum* and baths to the south were part of the forum area; however, this has not yet been confirmed through excavation. Finally, Baths 32, located in the southern section of the city, have been called a public baths by Zachos. Unfortunately, not much is known about the immediate surrounding architecture, aside from a house and a few buildings of unknown use.

⁵⁴² As indicated by the presence of a Corinthian column capital and the bath's layout (Zachos and Kazazis 2015: 128).

⁵⁴³ Measurement from Zachos and Kazazis 2015: topographical map of Nicopolis, 129-130; and Pierrepont White 1986-87: 312.

⁵⁴⁴ Zachos and Kazazis 2015: 126.

⁵⁴⁵ Measurement taken from Bowden 2007: fig. 3.

⁵⁴⁶ Zachos and Kazazis 2015: 115.

⁵⁴⁷ Scholarly opinion about the dating of the *odeum* has changed. In their 2008 work *Nικόπολη. Αποκαλύπτοντας την* πόλη της νίκης του Αυγούστου, Konstantinos Zachos and his co-authors suggest that the *odeum* was originally built in the Augustan period (Zachos et al. 2008: 121), however, in his 2015 archaeological guide to Nicopolis, Zachos dates it to the Trajanic period (Zachos and Kazazis 2015: 34).

⁵⁴⁸ Zachos and Kazazis 2015: 101, 113.

⁵⁴⁹ Zachos and Kazazis 2015: 105.

⁵⁵⁰ Zachos and Kazazis 2015: 98, topographical map of Nicopolis.

Although outside of the city walls, the northern 'Proasteion Baths' or 'North Baths' was one of the most important public complexes belonging to city. They are located in the southern part of the city's northern suburb, approximately 400 m north of the city walls and to the south of Proasteion Hill, from which Augustus is rumoured to have watched the victory at Actium. ⁵⁵¹ The dating of the baths is contested. Some scholars suggest that the bath complex was constructed immediately after the foundation of the town, in the late first century BCE, ⁵⁵² while Konstantinos Zachos dates them to the Hadrianic period. ⁵⁵³ The baths were part of a sacred sanctuary dedicated to Apollo, which also included (about 570 m to the northwest of the baths) the city's stadium, gymnasium, theatre, grave monuments, and a Trophy open-air sanctuary. ⁵⁵⁴ The Gymnasium, approximately 110 m to the southwest of the stadium, had it own set of baths, likely to the west end of the open area. ⁵⁵⁵ All these structures seem to have served the athletes participating in the New Actium (*Nea Aktia*) Games, although they were likely open to the public when not in use for the games. ⁵⁵⁶

Athens, Achaea

In his *Pictorial dictionary of ancient Athens*, published in 1971, John Travlos identified 24 Roman baths ranging in date from the first to sixth centuries CE. Since then, at least four more have been added.⁵⁵⁷ The level of excavation of these baths and the information available about their dates, phasing, usage, and urban placement is variable,⁵⁵⁸ and only those with some

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⁵⁵¹ Cassius Dio Roman History 50.12.

⁵⁵² Bowden 2007: 196; 2011: 110. Johannes Bergemann suggested that the baths date to the Augustan period based on their construction techniques (1998: 98–100).

⁵⁵³ Although not fully excavated, Zachos bases his date on the similarities of these baths in plan and building techniques to the buildings at Hadrian's Villa at Tivoli (Zachos and Kazazis 2015: 85; Zachos et al. 2008: 84). ⁵⁵⁴ Zachos and Kazazis 2015: 62.

⁵⁵⁵ Zachos and Kazazis 2015: 125. Measurement taken from Zachos and Kazazis 2015: topographical map.

⁵⁵⁶ Yegül and Favro 2019: 573; Zachos et al. 2008: 84.

⁵⁵⁷ Deforest 2020.

⁵⁵⁸ Travlos 1971: fig. 221, 180-181. Most baths are no longer visible, as they have either been destroyed or re-sealed by modern development (Travlos 1971: 180).

extensively excavated and published is the large Southwest Baths (Travlos' Bath V), which were originally built around 50 CE, ⁵⁵⁹ and were according to Theodore Leslie Shear Jr., director of the Athenian Agora excavations from 1968 to 1994, a "prosperous public bath." ⁵⁶⁰ They fronted onto the Pireus and Areopagus streets, across from the Classical Period House of Mikion and Menon. ⁵⁶¹ They are also approximately 57 m removed from the southwest corner of the Southwest Fountain House of the South Square and 120 m removed from the southwest entrance of the agora proper. ⁵⁶² With such a central position, these baths would have offered visitors to the agora, and those coming into the city by the Pireus Gate further to the west, a place to bath and engage in community life.

Clustered within a 50 m radium of the Southwest Baths are another three Roman baths: Travlos' Bath W (the East Baths), Bath X (West Baths), and Bath U (Areopagus Slope Baths). ⁵⁶³ These baths are all quite small (200 m², 60 m², and 160 m², respectively), ⁵⁶⁴ which may suggest private ownership. ⁵⁶⁵ When the Southwest baths were destroyed in the Herulian invasion of 267 BCE, they do not appear to have been immediately rebuilt. A similar situation seems to have taken place with Baths W and X, (and possibly U) which were all in use until the fifth century CE. ⁵⁶⁶ Though difficult to prove, it is possible that these smaller baths, at least temporarily, could

⁵⁵⁹ Nielsen 1993b: 32.

⁵⁶⁰ Shear 1969: 395. Unfortunately, neither gives reasons for their designations.

⁵⁶¹ Shear 1969: 394.

⁵⁶² Raja 2012: fig. 42.

⁵⁶³ Deforest 2020: fig. 3, fig. 9; Travlos 1971: fig. 221.

⁵⁶⁴ Deforest 2020: 336, 337; Nielsen 1993b: 32.

⁵⁶⁵ The location of the Areopagus Slope Baths on a main east-west street and its connection to an aqueduct may suggest public ownership (Deforest 2020). Due to their smaller size and proximity (under 20 m) it has been suggested that Bath X served men and Bath W served women (Thompson 1948: 169). Baths W, X, and U have been excluded for the survey count. Because the usership of these three baths is so uncertain, they have not been included in the final tally.

⁵⁶⁶ Bath W/East Baths was originally built in the late second or early third century and were rebuilt at the end of the fourth century CE. Evidence for Bath X/West Baths comes from its post-Herulian phase, although they may have

have replaced the Southwest Baths, which were only rebuilt in the mid-fourth century.⁵⁶⁷ All three of these baths were located in a residential area of the settlement during the Roman period.⁵⁶⁸ The latest dated baths known from the agora area are the Northwest Baths located in the northwest corner of the agora just north of where the Panathenaic Way interested the Agora between the Stoa Poikile and the Royal Stoa.⁵⁶⁹

The second century Kayatidion Street Baths (Travlos' Baths C, which Nielsen has identified as a *thermae*), is located in the (presumably residential) suburbs of the city, south of the acropolis, the theatre of Dionysus, and the accompanying Sanctuary of Dionysus. It is surrounded by a number of other smaller baths (Travlos' Baths A, B, D, and a little further east, Baths E), as well as a larger Makriyianni Army Hospital Bath (not identified my Travlos) but little else is known about the area since it is covered by modern development.⁵⁷⁰

The Ilissos area, Hadrian's 'New Athens', to the southeast of the Classical and Hellenistic city, holds the city's large public baths. The Olympieion Baths (which Travlos labels as Bath I) were constructed between 124 and 131 CE⁵⁷¹ and were situated approximately 25 m north of the Temple to Olympian Zeus (which like the baths, dates to the Hadrianic period). They sat on one

been built earlier. Bath U was in use until the fifth century, but it is unclear if it was destroyed and rebuilt after the destruction (Travlos 1971: 181). The phasing of the Areopagus Slope Baths is poorly understood; however, it has been dated to the third or fourth century stylistically (Deforest 2020: 336, 337).

⁵⁶⁷ Deforest 2020: 333; Nielsen 1993b: 32. There are also two private baths known from this area: those belonging to the fifth century Palace and the Giants and the sixth century additions to the Omega House in the southeast corner of the Agora.

⁵⁶⁸ Deforest 2020: 335, 336.

⁵⁶⁹ There is no evidence for the date of the construction of these baths; however, they were destroyed after the midthird century and then rebuilt (Deforest 2020: 335).

⁵⁷⁰ The dates of these smaller baths vary widely: Augustan (A), second century (D), and end of the fourth century (B) (Travlos 1971: 180). It is not known when they went out of use, if their use overlapped, or whether they were privately owned/used. There is also a private bathing facility associated with the 'House of Proclus' to the northwest of the Kayatidion Street Baths, on the south slope of the Acropolis (Deforest 2020: 340). The Makriyianni Army Hospital Bath was converted into industrial workshops in the fifth century; however, it is not known when the original bath was constructed (Deforest 2020: 340-1, footnote 41 for bibliography).

⁵⁷¹ Nielsen 1993b: 32.

of the major roads leading into the city, which passed through the Arch of Hadrian, approximately 75 m to the west of the baths, and were 140 m removed from the Ilissos River to the southeast. Within this same area are the largest baths in Athens, Travlos' Baths K (also called the Zappeion Baths), at least Antonine in date, which was destroyed by the construction of the Zappeion Exhibition Hall. This structure is thought by Travlos to be the baths of "glorious countenance," described by Lucian in his *Hippias*, or *The Bath*. These baths are approximately 190 m northeast of the Olympieion, just over 290 m northwest of the Roman Ilissos Bridge, which led to the city's stadium to the southeast. These large baths were situated between two important roads coming into the city from the east and converging Olympieion to the bath's south.

The two other Roman baths known from this area were both found during recent subway works in the eastern quarter of the Hadrianic city. The first, Travlos' Bath O, were late third or early fourth century in date and located in the northern quarter of the expanded city along one of the main roads leading out of the city and west of the eastern gate leading to Marathon.⁵⁷⁷ The second, the Amalias Boulevard Baths, date to the late third or early fourth century but have not yet been fully excavated. They are located at the southwest edge of the modern Zappeion Gardens, northeast of the Olympieion Baths and 200 m west of the Zappeion Baths.⁵⁷⁸

⁵⁷² Measurements taken from Travlos 1971: figs. 380, 397.

⁵⁷³ Dumont 1873: 51. It is unclear why the baths are dated to this period.

⁵⁷⁴ Travlos 1971: 181. Lucian *Hippias*, or *The Bath* 4-8 I have counted these as a public bath mainly because of their size, upwards of 8000 m² according to the plan published in 1873 in the *Revue Archéologique* by Dumont (1873: 51) or even as large as 9800 m² (Deforest 2020: 343). If they are baths of Lucian's description, his words "[i]f Heaven ever grants you the privilege of bathing there, I know that I shall have many who will join me in my words of praise," hints that the baths had a public clientele. Moreover, Hippias' benefaction may be an example of benefaction for the public good, not private use.

⁵⁷⁵ Measurements taken from Travlos 1971: fig. 379.

⁵⁷⁶ Raja 2012: fig. 39.

⁵⁷⁷ Deforest 2020: 343.

⁵⁷⁸ Pitt 2012: 29. The Amalias Boulevard Baths were not included in the final survey count.

The last baths to be considered are the 'Lyceum' Bath-Gymnasium, first built in the fourth century BCE but continuing in use until the fourth century CE. Although technically located outside of the city even after the Hadrianic expansion (laying east of the Valerian Wall), these baths were still included in this survey since they served the Athenian community for close to eight centuries and have a unique history of construction and use (to be discussed further in Chapter 3).

Gortyn, Crete and Cyrenaica

Gortyn, located in the south-central area of modern Crete, has four extant Roman baths. The earliest are located under the fourth century CE "Praetorium," and date to the Trajanic period. Centrally located within the Roman city, they lie at the intersection of two major roads, and are surrounded by a number of religious buildings: approximately 100 m to the west and across an important north-south road lies the Sanctuary of Apollo Pythios, home to a temple since the Archaic age. Along the road to the north of the bath complex is the late-Hellenistic "Temple A" and a *nymphaeum*. To the east, within the same *insula* as the baths is another religious complex with a late first century CE altar, and later a temple, "Temple B" or the "Temple of Augustus," dating the Antonine period. Along the northern edge of the bath complex (close to the north wall of the frigidarium, specifically) were a row of *tabernae* fronting onto the east-west road, and further south, on the western edge of the bath's palaestra, was a

⁵⁷⁹ The history of this so-called "Praetorium" will be discussed more fully in Chapter Three.

⁵⁸⁰ Lippolis 2016: 169; Francis and Harrison 2003: 490; Di Vita 2010: 164–71; 2000: 42.

⁵⁸¹ The baths appear to be on the southeast corner of the intersection of two important streets (possibly the *cardo maximus* and *decumanus maximus*) according to a plan published by E. Giorgi (2016: fig. 14) and E. Lippolsi (2016: fig. 11.2).

⁵⁸² Measurement taken from Di Vita 1988: fig. 1. Date from Lippolis 2016: 161, 166.

⁵⁸³ Lippolis 2016: 166; Di Vita 2000: 36, 41.

⁵⁸⁴ Di Vita 2000: 43.

late second or early first century BCE stadium.⁵⁸⁵ There is nothing to suggest that these baths served only those visiting the Pythion or other temples. Instead, the size and location of the bath suggest that it was public. The baths were fed by Branch C of the aqueduct entering the city from the north and which led to a *castellum aquae* to the northwest of the baths just across (diagonally) the major intersection.⁵⁸⁶

The other set of public baths are the Megali Baths,⁵⁸⁷ the largest building so far uncovered at Gortyn. Dating to the Hadrianic period,⁵⁸⁸ it was constructed in the southeastern sector of the city at the *terminus* of aqueduct branch C (the same aqueduct branched that served the baths under of the Praetorium).⁵⁸⁹ North of the baths is an area of raised ground that N. Masturzo and C. Tarditi have tentatively suggest may have been a Hellenistic-style gymnasium,⁵⁹⁰ similar to the arrangement seen in the bath under the Praetorium. To the northeast of this bath complex (approximately 75 and 100 m removed) were two parallel and rectangular, "twin" temples,⁵⁹¹ dating to the Antonine period,⁵⁹² while approximately 115 m to the northeast is a *nymphaeum* ("Nymphaeum Perali") of unknown date.⁵⁹³ Occupying the southern corner of the baths *insula* is a semi-circular structure, dating to the second half of the second century and

⁵⁸⁵ Lippolis 2016: fig. 11.3, 166.

⁵⁸⁶ Giorgi 2016: fig. 14; 2007: 294, 296, 301, and fig. 9. This aqueduct is thought to date to the second century CE and was part of a large urban overhaul that included the erection of the Praetorium Baths and the Megali Baths (discussed below) as well as two *nymphaea* (Giorgi 2007: 293). There may have been an earlier version of the aqueduct, but no archaeological evidence for it has yet been found to support this hypothesis (Giorgi 2016: 35). ⁵⁸⁷ The monumentality and size of the bath complex (at least 11,500 m² and possibly covering two *insula* blocks according to Masturzo and Tarditi 1994–1995: 299, 302, 305), along with a reference from the sixth century Greek chronicler Malalas describing it as "public" (τὸ δημόσιον) (Book XIV, 61, 18 – 26) indicate that this was a publicly erected bath complex. Masturzo and Tarditi (1994–1995: 230-231) make the argument that Malalas was referring to this bath in his work.

⁵⁸⁸ Antonelli et al. 2017: 581; Lippolis 2016: 169; Masturzo and Tarditi 1994-1995: 305.

⁵⁸⁹ Giorgi 2007: 294, 296, 301, and fig. 9.

⁵⁹⁰ Masturzo and Tarditi 1994–1995: 241, 299.

⁵⁹¹ Masturzo and Tarditi 1994–1995: 228.

⁵⁹² Lippolis 2016: 169. Masturzo and Tarditi date the temples more broadly to the second century CE and suggest that they may be part of an area dedicated to the imperial cult (1994–1995: 291).

⁵⁹³ Masturzo and Tarditi 1994–1995: 296.

conjectured to be an external *exedra*.⁵⁹⁴ Just east of the baths, Masturzo and Tarditi suggest there was an large public space, possibly the forum of the Roman city.⁵⁹⁵ A. Di Vita, in a map of Gortyn published in 1988, similarly hesitantly labels the area as the "*agora Romana*?"⁵⁹⁶ Finally, although the western edge of the baths are not yet known, it is thought that there was an entrance to the west, opening up on the same north-south road (possibly the *cardo maximus*) as the *insula* in which the baths under the Praetorium are located just over 335 m to the north.⁵⁹⁷

Gortyn's other two Roman bathhouses are both later fourth century in date.⁵⁹⁸ One, the "Terme Milano" is located approximately 75 m south of the Praetorium baths and another smaller one (the "Piccole Terme") is about 200 m south of the city's agora. It has been suggested that, because of their smaller size, both set of baths were private or perhaps only serviced a select group of individuals. The baths south of the Praetorium, however, may have served as a replacement for the baths under the Praetorium, a possibility that will be explored further in the Chapter Three.

Coloniae

Colonia Iulia Augusta Diensis, Macedonia (modern Dion)

In total, three public baths (possibly four, see below) have been identified at the Augustan colony of Dion, founded at the northeastern foot of Mount Olympus, in central Macedonia.⁵⁹⁹ All the baths were close to the civic centre of the city and to each other. The largest of the baths, the

⁵⁹⁴ Masturzo and Tarditi 1994–1995: 257, 266. Masturzo and Tarditi further argue that this *exedra* would have contributed to the monumentalization of the eastern bath façade (1994-1995: 271).

⁵⁹⁵ Masturzo and Tarditi 1994–1995: 267, 271, 305.

⁵⁹⁶ Di Vita 1988: fig. 1.

⁵⁹⁷ Masturzo and Tarditi 1994–1995: 299, 301.

⁵⁹⁸ Bejor et al. 2016: 60, 62. Neither has been included in the final count.

⁵⁹⁹ There is one other possible set of public baths: those in the 'Three Pipes' west sector of the city that lay about mid-way along the *decumanus* (*maximus*?) leading from the western gate. I have not included them in this survey however, since they are fourth century in date and have not been fully excavated. Moreover, not much is known about the surrounding area in which they stand (See Oulkeroglou 2017: 289, 305; Oulkeroglou 2016: 107-110).

so-called "Great Baths," dated to the end of the second century CE, are comprised of the bath block and open-air courtyard or palaestra to the east. The main bath complex itself is approximately 75 m west of the *cardo maximus* (separated from the road by its palaestra and a row of shops) and just shy of 50 m south of the forum. Visitors gained access to the baths from the main road by means of a staircase leading up to the baths' palaestra (while passing next to a set of public toilets). These baths also stand just inside and north of the city's southern gate and would have been one of the first public buildings to greet visitors entering the city from the south, or those entering from the harbour to the east. Bordering the north edge of the baths' palaestra is the city's *odeum*.

The slightly smaller Severan Forum Baths stood at the northeastern corner of the forum (c. 140 m north of the Great Baths) and were delineated by the *cardo maximus* on their eastern side (from which it was entered), and the *decumanus maximus* (which funneled visitors from the West Gate to the forum) on its north side.⁶⁰¹

On the opposite (east) side of the *cardo maximus* lay the Central Road Baths dating to the end of the second or beginning of the third century CE. They are located in the second *insula* removed from the south city gate. It faces west onto Dion's *cardo maximus* and is directly opposite (east) of the so-called "Monument of the Shields," and forum-basilica behind it.⁶⁰² They would have been the first baths to be encountered by those arriving to the city via the harbour.

Another set of baths was found east of the *cardo maximus*. The Eastern Road Baths or the Villa of Dionysus Baths (Severan in date) were part of an *insula* filled to the west with shops and workshops. This block was one full *insula* and approximately 50 m removed from the *cardo*

⁶⁰⁰ Oulkeroglou 2016: 89, 91. All measurements for Dion baths taken from Oulkeroglou 2017: figs. 1 and 2.

⁶⁰¹ Oulkeroglou 2017: 293.

⁶⁰² Oulkeroglou 2016: 97. Date: Oulkeroglou 2017: 302; Oulkeroglou 2016: 100.

maximus and approximately 80 m northeast of the northeast corner of the forum (and coincidently the Forum Baths). Originally, the baths occupied the southern end of the Villa of Dionysus and were connected to it via a single corridor. At 900 m² (about one third the size of the entire villa and roughly the same size as the Forum Baths),⁶⁰³ I am not convinced that this bath was ever truly a private domestic bathhouse. Instead, it seems more likely that it was always open to the public, either to paying customers, or perhaps, since the main entrance to the bath was off of the southern atrium of the villa, it was open to use by the villa owners' clients. The corridor connecting the villa to the bathhouse was later blocked off, and during an undated renovation, an entrance to the baths was opened up directly onto the *cardo maximus*, implying perhaps, that ownership of the baths had changed.⁶⁰⁴ To the north of the baths was the city wall and just beyond this the Vaphyras River.

The Kelepouris Baths, dated to the second half of the second century CE, were outside the city walls along the road leading from the south gate towards the various sanctuaries that filled the area to the east of the town. The Sanctuary to Olympian Zeus was the closest of these sanctuaries to the baths (approximately 50 m east) and the Roman theatre another 150 m to the east of the baths.⁶⁰⁵

Finally, there is smaller set of baths (the baths of the 'Three Pipes' sector) located along the *decumanus* leading from the southern gate towards the forum. These baths have not been fully excavated (only 150 m² has so far been uncovered) and thus their public/private function is unclear. Moreover, they are late in date (mid-fourth century CE) and so have not been included in the final count.

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⁶⁰³ Oulkeroglou 2016: 101.

⁶⁰⁴ Oulkeroglou (2017: 302, n. 29) suggests that the villa owner may have rented the baths out to a manager. No dates are given by Oulkeroglou (2017) for the blocking of the private corridor and opening of the public entrance. ⁶⁰⁵ Oulkeroglou 2017: fig. 1.

Colonia Iulia Augusta Philippensis, Macedonia (modern Philippi)

On the north coast of the Aegean Sea, in eastern Macedonia, the colony of Philippi is home to three extant public baths. 606 The earliest of these baths (the Octagon Complex Baths) dates to the re-founding of the city as a colony by Octavian in 30 BCE and lies in the second *insula* (c. 40 m) removed from the southeast side of the city's forum. 607 The partial remains of another public bath of early imperial date have been found approximately 20 m northeast of the forum, separated from it by the *decumanus maximus*, onto which the baths open. They are in a religious sector of the city. 608 The largest and latest baths known from Philippi (The Large Baths) spread across two *insulae* separated by a northwest-southeast road. This baths' palestra lies in the *insula* directly southwest of the forum (c. 20 m), and the baths themselves are one *insula* further southwest. 609 Both the palaestra and the baths lie in a commercial area of the city; the city's *macellum* shared an *insula* with the bath's palaestra. 610

Colonia Augusta Buthrotum, Epirus (modern Butrint)

Six Roman baths have been provisionally identified at Butrint (Buthrotum), an Augustan colony located in the Roman province of Epirus and was situated on a peninsula just east of the

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first is part of a second century CE complex, which in its first phase, seems to have been the seat of a *collegia* of charioteers, and was not likely publicly funded (or perhaps even open to the public) (See Oulkeroglou 2016: 183-184). The second, lying in the southwest area of the city, is one wing of a monumental complex. The function of the complex is unclear; however, an inscription associated with the cult of Liber, Libera, and Hercules found in the complex, may suggest that this was a clubhouse for a Dionysian association, and therefore not publicly funded or owned/used (See Oulkeroglou 2016: 181-183).

⁶⁰⁷ This bath may be the earliest municipal baths constructed after the city's re-founding as a colony. It was eventually (in the fifth century CE) incorporated into the so-called "Octagon complex" at which point it may have ceased to serve a public function, instead falling under the management of the church for use by the city's Christians (Oulkeroglou 2016: 180, 181). All measurement for Philippi taken from Oulkeroglou et al. 2019: fig. 18.

⁶⁰⁸ The baths' remains were found alongside a large cistern, the size of which suggests that these baths were of public use (Oulkeroglou 2016: 176). Date: Oulkeroglou 2016: 177.

⁶⁰⁹ The baths date to the second half of the second century AD (Oulkeroglou et al. 2019: 242; Oulkeroglou 2016: 176).

⁶¹⁰ Oulkeroglou et al. 2019, fig. 18; Vanderspoel 2010: 271.

island of Corcyra, overlooking the Vivari Channel in what is now southern Albania.⁶¹¹ The most well published of the baths is the Forum Baths, thought to date to the early Principate (around the same time that the baths of Agrippa were erected in Rome).⁶¹² They are located 15 m west of the forum, facing onto a monumental colonnaded road that connected the west end of the forum to the *scanae frons* of the theatre, slightly northwest of the baths. Across this road is a peristyle building associated with the Asklepieion, which included the theatre and a scared spring to the north of the peristyle building, as well as and a shrine, fountain, and *prytaneum* further west beyond the theatre.⁶¹³ Unfortunately, the urban situation of the other baths cannot be discussed here as only Byzantine or Venetian period remains have, as of yet, been identified and excavated in the vicinity of the other five baths.⁶¹⁴

Colonia Laus Iulia Corinthiensis, Achaea (modern Corinth)

At Corinth, a total of ten Roman baths have been identified on the site.⁶¹⁵ The best studied is the "Great Bath on the Lechaion Road" (ca. 200 CE). An example of the 'small Imperial-type' bath building,⁶¹⁶ the baths lie approximately 225 m north of the forum, fronting on

⁶¹¹ Wilson 2013: 94; Ceka 2001: 185; Çondi 1999: 215, plan. 6. Wilson, in his discussion of the Augustan aqueduct, refers to Butrint's "public bath buildings of the Roman imperial period" without identifying which of the six baths he notes were fed by the aqueduct belong to this categorization (2013: 94, 95).

⁶¹² Hernandez and Çondi 2016: 644.

⁶¹³ Bowden 2011: fig. 7.3.

⁶¹⁴ Two of the baths, those north and southwest of the Baptistery, were partially excavated by the site's original excavator Ugoloni as part of the Italian Mission (1928-40), while two others (the theatre baths and the baths close to the Vivari Channel) were discovered during the post-Ugolini Albanian excavations of the site under Marni and Mustilli (Hodges 2012, 2013). The final two baths were uncovered by later Albanian excavations: the Baptistery baths under Hadzis (1982), and the those beneath the late antique Great Basilica, under Meksi (1980-83) (Hodges 2012: fig. 3, fig. 4).

⁶¹⁵ For list and map of all the baths' locations see Biers 2003, fig. 18.1.

⁶¹⁶ Biers 2003: 313. See Yegül 1992: 130 for a discussion of this type.

to the west edge of the Lechaion Road, Corinth's cardo maximus and main approach to the city centre from the north.⁶¹⁷

Roughly 115 m south of the Great Baths are the earliest Roman baths known from Corinth, thought to date to the Augustan period. ⁶¹⁸ Like the Great Baths, this smaller bath complex bordered the eastern edge of the Lechaion Road. It lay 75 m north of the northeastern edge of forum, 40 m north of the Peirene spring and Hellenistic fountain and bordered the northern side of the first century CE Peribolos of Apollo (previously a macellum). At some point in the mid-to-late first century CE the building underwent a renovation when a line of shops was added to the eastern side of the baths, facing onto the Lechaion Road. 619 These baths have been associated with both the "Baths of Eurykles" and those of Hadrian, both recorded in Pausanias' mid-second century travelogue. 620

Another bath is located approximately 55 m north of the theatre, which Jane Biers suggests may have been even larger than the Great Baths on the Lechaion Road. 621 Unfortunately, the baths' precise date of construction is unknown, but its brickwork suggests it was built after the Great Baths on the Lechaion Road (i.e., after 200 CE). 622

The other eight baths have been identified by Biers as balnaea: "small neighbourhood [baths]."623 Most have not been fully excavated or published making it more difficult to comment on their public or private nature, and thus while their location will be described, they are not

⁶¹⁷ All measurements for Corinth taken from: Biers 2003: fig. 18.1, unless otherwise specified. At Corinth, the *cardo* maximus (Lechaion Road) does not intersect with any known decumanus (maximus or otherwise). Instead, it comes to an end at the forum.

⁶¹⁸ Biers 2003: 305.

⁶¹⁹ Biers 2003: 306.

⁶²⁰ Biers 2003: 306, n. 13; 1985: 63. Pausanias Έλλάδος Περιήγησις 2.3.5

⁶²¹ Biers 2003: 305.

⁶²² Biers 2003: 308. For the unreliability of dating by brickwork, see Biers 2003: 306, n. 13, 308, n. 24.

⁶²³ Biers 2003: 317.

included in the final tally. The baths about 180 m south of Temple E seem to have been built around the mid-to-late first century CE, while those 75 m south of the Temple (under a later Byzantine bath) are of an early imperial date. The baths 200 m west of the north gymnasium (part of the Asklepion) were erected about 200 CE.⁶²⁴ The remaining four baths on site are late antique and so are not described in the present study.⁶²⁵

Cities and towns with no known formal status

Argos, Achaea

Argos, one of the oldest continuously occupied cities in Greece and located in the eastern Peloponnese, has only two extant bath buildings: the Theatre Baths (or Bath A) and Baths B. The Theatre Baths originated as a cult complex, complete with a cult room and sunken porticoed courtyard, but in its second phase (sometime in the second century CE) a bath was inserted into the courtyard. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus. It is located in an area of the town with a number of other public buildings, a sort of secondary public nucleus.

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627 Evangelidis 2014: 342-3.

⁶²⁴ Biers 2003: 308, and n. 18.

⁶²⁵ They include: The baths on the property of I.M. Lekkas (fourth or fifth century CE), the South Stoa baths (400-450 CE), The Panayia Field Baths (SE of the forum and the Julian Basilica, end of the fifth or beginning of the sixth century CE), and the Baths west of the *odeum* (sixth century CE?) (Biers 2003: 309, 310). The eight baths identified by Biers as *balnaea* are not included in the final count of bath location.

⁶²⁶ Lancaster 2015: 54. The dating of the two phases is up for debate. While Tomlinson (2014: 18) suggests the baths were constructed in the late Roman period, "long after the Roman occupation of Greece," one of the French excavators P. Aupert dates the "Serapeum" to the early Trajanic period (c. 100 CE) and the addition of the bathhouse to the Hadrianic period, based on an imperial inscription discovered in its substructure (Aupert 1974: 773, 774, 779, 782). Lancaster, in her study of innovative vaulting in architecture, argues for a later date for both building phases. In her opinion, the first structure (which she argues was likely honouring Asclepius) should be attributed to the Hadrianic period, with the bath building belonging to the later second century. She bases these dates on the revised dating of pottery found in the excavation trenches and the relationships between walls in the cult/bath complex, theatre and the "south aqueduct" (Lancaster 2010: 467-70; 2015: 54).

was the city's *odeum* (a distance of approximately 55 m). A Hadrianic aqueduct (C1) runs north-south along the bath's west side.⁶²⁸

Bordering the south side of the city's agora and approximately 135 m southeast of Bath A is another bath, Bath B. Directly north lies the *dromos* of the agora and further north of that a *nymphaeum*, and 55 m to the west is a hypostyle hall.⁶²⁹

Eretria, Achaea

Eretria, a costal town on the Greek island of Euboea, has only one known Roman bath. It is second or third century in date⁶³⁰ and lies in the western district of the city, four *insulae* (c. 300 m) removed from the west gate, in an area originally dedicated to buildings for entertainment and sport during the city's Hellenistic period. This included the theatre approximately 200 m to the northwest, and a Hellenistic gymnasium complete with palaestra, *paradromos*, and *dromos* that had been abandoned and was used as a dumping ground by the second century CE. ⁶³¹ The baths were just southeast of the main intersection of the city. In the *insula* northeast of the baths (and across the *cardo maximus*) was a large private residence, the House of the Mosaics. Two *insulae* (c. 35 m) to the northeast and across the *decumanus maximus* was the imperial Sebasteion.

Sikyon, Achaea

In the northern Peloponnesus, about 3 km from the Corinthian Gulf lies Sikyon, home to one known set of public baths which are located in the civic section of the town. Directly south (c. 50 m away) lies the temple precinct⁶³² that belongs to the agora (with a *bouleuterion*) still

629 Lancaster 2010: fig. 14.

⁶²⁸ Lancaster 2010: fig. 14.

⁶³⁰ Reber et al. 2012: 138.

⁶³¹ Reber et al. 2012: 129. Measurements taken from Reber et al. 2012: fig. 2.

⁶³² The temple has been tentatively identified as honouring Artemis Limnaia, but Apollo has also been suggested (Lolos 2011: 279). Unfortunately, investigation of the area between the temple and the baths has been hampered by a parking lot in the area (Lolos and Gourley 2011: 127).

further south. Along the west side of the agora, about 110 m southwest of the baths, is a large palaestra, thought to date originally to the early Hellenistic period and which may be the "gymnasion of Kleinias" mentioned by Pausanias. Approximately 165 m and 250 m west of the baths are the theatre and stadium, respectively. 634

Aptera, Crete and Cyrenaica

The town of Aptera on the northwestern coast of Crete, has two extant public baths. 635

Although both have only been partially excavated, they have been assigned a date of the late first or early second century. 636 Both are located in the topographical centre of the town, very close to one another. Bath 1 lies approximately 50 m southeast of Bath 2. They were fed by a pair of cisterns: one, shaped like a capital gamma, was approximately 55 m southwest of Bath 2 and the second, tripartite in construction, was approximately 20 m south of Bath 1. About 125 m further southeast of Bath 1 stood what has been identified as a "Roman public building", and about 100 m south of Baths 2 was a fifth century BCE temple and its enclosure. 637 Roughly equidistance between and 60-75 m south of the two baths lies the monastery of Saint John the Theologian, 638 which 'oral sources' suggest was built over the city's agora; however, this has yet to be confirmed (or refuted) through excavation. 639

⁶³³ Pausanias Έλλάδος Περιήγησις 2.10.7.

⁶³⁴ Measurements taken from Lolos 2011: fig. 5.4 and Lolos and Gourley 2011: fig. 6.

⁶³⁵ Niniou-Kindeli 2000: 1037, 1039.

⁶³⁶ This date comes from an inscribed lintel associated with Bath 1, thought to name the Athenian benefactor of the baths (Stampolidēs et al. 2019: 53; Martínez Fernandez and Niniou-Kindeli 2007; Niniou-Kindeli 2000: 1039).

⁶³⁷ Measurement taken from Baldwin Bowsky and Niniou-Kindeli 2006: fig. 3. They also identify the building to the southeast of Bath one as 'public' in the same figure.

⁶³⁸ Measurement taken from Baldwin Bowsky and Niniou-Kindeli 2006: fig. 3.

⁶³⁹ Stampolidēs et al. 2019: 46.

Discussion:

To conclude, this survey Roman urban public baths from twelve Greco-Roman cities in the Roman provinces of Greece, Macedonia, Epirus, as well as Crete and Cyrenaica indicates that from the first century to the third century CE at least, those responsible for erecting a city's or town's Roman bath(s) preferred to do so in high traffic areas, with the forum or agora being the most popular choice with fifteen examples from eight cities. Another very popular repeated location was near other public structures or areas related to sport, leisure, or entertainment (i.e., other baths, theatres, detached palaestrae/gymnasia, stadia or circuses, and amphitheatres) with twenty-one examples in total. Nearby other baths were the most common of these locations with almost half of the cities surveyed (Athens, Corinth, Dion, Philippi, Argos, and Aptera) having at least two baths near each other and Dion with a total of four all clustered around the forum. Baths near theatres were found at four sites and near a detached palaestra or gymnasium and a stadium or circus at two a piece. There were no baths found near an amphitheatre since these are not common in Greece and only two (Gortyn and Corinth) of the cities surveyed had them. Baths near temples or sanctuaries were also common with thirteen examples coming from ten cities. A total of twelve baths were built near water sources: eight close to man-made water sources that included aqueducts, castellum aquae, cisterns, and wells, and four near natural water sources including springs and rivers. As will be discussed later; however, not many of these bathing facilities can be confidentially connected to these water sources, the natural ones especially. Baths were also built near other structures making use of public water, namely fountains and nymphaea with seven examples from five cities. Residential and commercial/industrial areas as well as the main intersection/centre of town each saw five baths placed near them and public

civic buildings like the *macellum* and *odeum* saw four (one for the former and three for the latter).

Although this will be fuller discussed in the conclusion to this chapter, it is worth noting here that the findings presented above reflect closely the conclusions by Dr. Monika Trümper for her survey of seventy-five Greek baths from across the Greek world. She too found a preference for many of the same high-traffic locations identified by my own survey including harbour, city gates, residential areas or the edge of the settlement, intramural temples or sanctuaries, and near the agora or topographical centre of town.

ASIA, LYCIA and PAMPHYLIA (western Turkey)

Roman involvement in Anatolia is similar to what we have already seen in Greece.

Beginning in the years after the death of Alexander, continuing through King Attalus III's bequest of the Pergamene kingdom to Rome in 133 BCE, and during the Empire, Roman policy was one of non-interference. The Greek and Anatolian cities were largely allowed to self-govern, keeping many of their pre-Roman civic institutions, but generally becoming timocratic. As in Greece and the rest of the Roman East, there was a long pre-Roman (largely Greek) urban settlement history. Indeed, Greek culture became, following the Greek migrations into Ionia, dominant in the cities and towns of Anatolia, and this trend would continue into imperial times. Thus, when the Roman came to Anatolia, they were met with, in many cases

⁶⁴⁰ Trümper 2013b.

⁶⁴¹ Yegül 2000: 135.

⁶⁴² Marco 1980: 662. For example, Miletus and Priene kept their *prytaneis* and *archiprytanis*, while boards of *strategoi* became frequent in Asia, particularity in the newly founded Greek-style *poleis* (Marco 1980: 678). ⁶⁴³ By the end of the first century, BCE the indigenous languages of Lydia, Caria and Lycia had been replaced by Greek, although there is a continuation of some native languages in the more remote and mountainous area of Anatolia where Hellenism did not establish as firm as hold (Marco 1980: 674). This is not to suggest, however, that local Anatolian traditions were completely forgotten or played no role in the formation and development of the cities

(again as in Greece) fully 'furnished' urban cities, essentially Greek *poleis*. However, instead of re-forming or re-developing these settlements into recognizable Roman urban centres, in many of the cities, whose placements of baths I will be examining (including Aphrodisias, Priene, Pergamum, etc.), there is no real conscious attempt to Romanize the Hellenic institutions; Greek public spaces (e.g., the agora and stadium) are kept in favour of the introduction of their Roman equivalents (the forum, circus, amphitheatre, etc.), with monumental Roman architecture (marble paved streets, colonnades, fountains, arched gateways, etc.) integrated into a pre-existing urban layout, instead of dictating it.⁶⁴⁴ This policy extends to the city layouts in many cases; when a grid pattern is found in these pre-Roman Greek *poleis*, it is of the Greek style.⁶⁴⁵ There is no push to replace the existing layouts with the axial grid planning so well known from Italy, ⁶⁴⁶ nor is public building typically concentrated at the intersection of the two main arteries through the city (if such an intersection even exists).

The pre-existing Greek *poleis* were not the only type of city found in Anatolia during the Roman period. Here, as in Greece (and following Pompey's example in Pontus), Roman-style *coloniae*, though not very common, especially when compared with the west (Spain in particular), do appear. In Pisidia, six Augustan *colonia* seem to have been founded to help quell the resistance in the area (the eastern frontier at the time),⁶⁴⁷ and 11 other *coloniae* were founded

in Anatolia under Roman dominion. The Roman city in Anatolia was (at least by the third century CE) a hybrid place, one in which Greek, Roman and Anatolian needs, practices and traditions would all find expression. ⁶⁴⁴ Sometimes new 'Roman' public spaces could be created (completed with their own forum, basilica etc.), but significantly, these did not always replace the Greek originals, which sometimes remained in conjunction with their Roman equivalents (Marco 1980: 673).

⁶⁴⁵ This is perhaps not surprising given that the Greek-style grid was through to have originated in Anatolia (its creator Hippodamus, was apparently from Miletus, a city with a very well developed and heavily studied city street grid).

⁶⁴⁶ In Italy, the gird patterns in town usually have an axial focus, meaning that there is one major north-south (the *cardo maximus*), and one east-west artery (*decumanus maximus*) in the city, and the intersection of these two streets, is usually, though not always the chosen and the focus of public building.

⁶⁴⁷ Levick 1967: 6.

for the purpose of settling veterans and the landless Italian poor.⁶⁴⁸ While these colonies (especially those in Pisidia) were established under the *lex Colonia Iuliae*, and had Roman constitutions, magistrates and an *ordo*, in which Latin was used, almost all of them were not *ex novo* foundations; veterans and the Roman constitution were merely additions to a pre-existing and fully developed Greek city.⁶⁴⁹ However, even in the newly formed colonies of Anatolia (including Antioch), Roman planning is less formal, and symmetry and regularity less common than is seen in Italy, Spain, and Britain. There is nothing that can be compared to Cosa or Alba Fucens in Italy, or the extremely regular orthogonal grid pattern found at Trier and Timgad.⁶⁵⁰

The undertaking of massive public building projects at personal expense is one aspect of Roman influence that is found in Anatolia, especially under the Flavian emperors and throughout the second century CE. ⁶⁵¹ Bath complexes were one such building, which drew the benefaction of the ruling elite. However, as previously mentioned, there was no attempt in the cities of Anatolia to 'adopt' whole-sale western standards or practices of building. Instead, there was interchange, reciprocity, and experimentation, and "Rome and the West had ceased to be the overarching architectural reference for the cities of Asia." Such experimentation is seen in the development of the bath-gymnasium complexes, a new hybrid architectural type, combining the

 ⁶⁴⁸ Marco 1980: 674. The known *coloniae* from Anatolia include Sinope, Heracleia, Pontica, Apameia, Myrleia, Parium (all pre-Augustan); Alexandrian Troas, Antioch, Olbada Comama, Cremna, Parlais, Lystra Ninica Claudiopolis, Germe (all Augustan) Archelais (Claudian), and finally Iconium (Hadrianic).
 ⁶⁴⁹ Yegül 2000: 133.

⁶⁵⁰ Yegül 2000: 144. In many cases this is likely because of the rough terrain; Pisidia was especially mountainous and not conducive to regular grid planning (Levick 1967: 43), although Greek *poleis* like Priene and Miletus, also founded on difficult terrain do maintain a surprising strictness in their Greek orthogonal planning.

⁶⁵¹ Yegül 2000: 137; Marco 1980: 678. Indeed, so much so that, although they were mostly uninvolved in a city's internal financial affairs, in a number of instances several emperors (Vespasian, Trajan, and Hadrian, in particular) had to step in to curb what they saw as extravagant public building, for although public buildings were often erected at private expense, its maintenance became the responsibility of the city, putting a strain of public finances (Marco 1980: 669). By the time of Marcus Aurelius, permission from the emperor was required in the erection of any new public works in Anatolia (Marco 1980: 684).

⁶⁵² Yegül 2000: 141.

Roman warm baths with the colonnaded Greek gymnasium, ⁶⁵³ which arose across the cities of western Turkey. The question then becomes, did they also adopt and integrate any preferences for the urban placement of these public buildings? Where did they put their bath-gymnasia complexes?

Modern-day Turkey is fortunate in that many of its ancient cities (including many of those in this survey) have not been covered over by modern development. This has allowed for a relatively high level of preservation and gives archaeologists more widespread access to the sites. In many cases, therefore, there has been extensive excavation of monumental urban architecture of the cities. So far, however, less has been done to connect these monuments to their wider urban landscape and to identify and explore residential areas. Work in places like Aphrodisias and Priene, however, are starting to change this. 654 Pre-Roman occupation phases are also still largely poorly understood. Moreover, although western Turkey is home to a huge number of Roman-style baths and bath-gymnasia, many have never been fully excavated, and even those which have rarely go below the bath to explore pre-Roman remains.

During the time of Augustus, the province of Asia included the areas of Troad, Bithynia, Aeolis, Ionia, Mysia, Lydia, and Caria, while Phrygia, Pisidia, and Pamphylia were split between Asia and the newly formed Galatia to the east. Lycia retained its position centred on a peninsula of southwestern Turkey. During the Trajanic period, the provinces were re-organized, and Lycia, Pisidia, and Pamphylia became part of one province (Lycia and Pamphylia), while Asia expanded to include some of the northern Pisidian cities (i.e., Pisidian Antioch) and parts of

⁶⁵³ Yegül 2000: 144. Interestingly, we do not get this interchange in Greece proper, where Greek gymnasia and a history of hot bathing also existed in the pre-Roman people. It is possible that we are seeing the influence of the indigenous Anatolian peoples.

⁶⁵⁴ See 2006; 2002; 2000 for Aphrodisias.

Galatia. It is these Trajanic provincial divisions that will be used to group cities for the purposes of this dissertation, although the majority of surveyed baths come from Asia. A total of twenty-five cities were surveyed in the Roman provinces that make up what is now western Turkey (see Figure 10, below). As was done for the other areas surveyed, the cities and towns are organized by legal status (seats of the governor, *coloniae*, no formal known status), then by province (Asia, then Lycia and Pamphylia) and then alphabetically within each province.

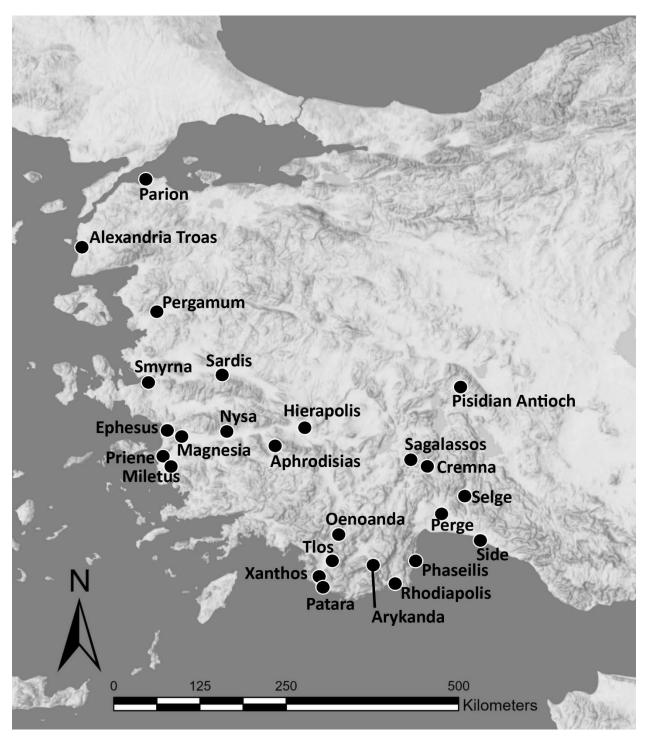


Figure 10: Map of western Turkey showing sites included in survey.

Seats of the governor

Ephesus, Asia

The earliest known baths from Ephesus, an Ionian city and later Augustan seat of the governor in the province of Asia that is located a few kilometres inland from the western coast of Turkey, are those added onto the Theatre gymnasium in the Augustan era. This bathgymnasium complex is in an area of the city crowded with other public architecture. It is situated between the theatre 30 m to the east and the Porticus of Verulanus 20 m to the west, which in turn separated it from the Hadrianic Harbour Baths to the west. The bath complex's east side bordered the main thoroughfare of the city. Approximately 10 m south of the palaestra was the entrance to the "Arkadiane," the boulevard that led from the theatre to the harbour.

The first half of the second century saw the addition of two new baths to town, the Varius Baths and the Harbor Bath-Gymnasium Complex. The Varius Baths⁶⁵⁹ were tucked in behind the so-called "Temple of Hadrian" facing onto Embolos Street, which connected the upper area of the city (including the Upper Agora) to the lower city. Beside the baths was a set of latrines also donated by Varius, with a private house behind. Across the street from these baths was elite housing (the 'Slope' or 'Terrace' Houses), and approximately 90 m west of the baths was the Commercial "Tetragonos" Agora. Public monuments lined Embolos Street around the baths,

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⁶⁵⁵ Raja 2012: 76.

⁶⁵⁶ All measurements taken from Yegül and Favro 2019: fig. 10.24. The Porticus of Verulanus was a sports field/planted park (called a *xystoi* in antiquity) (Scherrer 1995: 178).

⁶⁵⁷ The stretch of road leading to the stadium and baths is called the Theatre Street or Plateia in Koressos and is an extension of Embolos Street and the "Marble Road" (Kalinowski 2002: 124; Scherrer 1995: 166). ⁶⁵⁸ Scherrer 2001: fig. 3-9; 1995: 174.

⁶⁵⁹ Also referred to as the Skolastica baths (See Yegül 1992: 288-291 and Miltner 1960). The baths are thought to date to the early second century CE (Raja 2012: 79; Nielsen 1993a: 36).

⁶⁶⁰ Raja 2012: 79; Scherrer 2001: fig. 3-9. Scherrer (1995: 122; 2001: fig. 3-9) argues that this building is a private residence and not a brothel as has been suggested in the past (i.e., by Miltner 1960: fig. 2). Yegül and Favro (2019: fig. 10.24), however, continue to label it as a brothel.

including a *nymphaeum* to Trajan 55 m to the west, and on the south side of the street, Hadrian's Gate 45 m to the southwest. Finally, the *Heroon* and Octagon and another *nymphaeum* at in front of Terrace Houses 1 and 2,⁶⁶¹ across the street from and southwest of the baths. The Harbour Baths, begun under Domitian and finished under Hadrian, were the largest bath-gymnasium complex at Ephesus.⁶⁶² This complex sits between the Porticus of Verulanus to the east and the harbour and associated market buildings to the west. Its south side is bordered by the 'Arkadiane' and 250 m to the north is the Hadrianic Olympieion.⁶⁶³ The harbour was clearly very important to the city; a high volume of people and goods would have entered the city via this port.

Therefore, there is little wonder that city magistrates would locate a public bath complex at the end of the "Arkadiane" Street, which led visitors to the civic centre of the city at the time, the Tetragonos Agora, and also why the Harbour bath complex and market buildings were later added to the area.⁶⁶⁴

Another two bath-gymnasium complexes were added at Ephesus later in the second century CE: the East Gymnasium and Vedius Gymnasium. The Vedius Gymnasium, begun during the proconsulate of Antonius Albus (147/149), was sponsored by M. Claudius P. Vedius Antoninus Phaedrus Sabinianus and his wife Flavia Papiana. This complex was built in the northwestern most area of Ephesus, in the north-western foothills of the Panayırdağ hill and opened onto the main thoroughfare through the city. It was situated approximately 60 m north

⁶⁶¹ Scherrer 2001: fig. 3-9; 1995: 124, 126, 128, 129, 132, 134, 142-148.

⁶⁶² Raja 2012: 76-78; Scherrer 1995: 176.

⁶⁶³ Raja 2012: fig. 28; Scherrer 2001: fig. 3-9; Scherrer 1995: 180-181, 186. Measurement taken from Raja 2012: fig. 27.

⁶⁶⁴ Raja 2012: 87, fig. 24.1.

⁶⁶⁵ Yegül and Favro 2019: fig. 10.24; La Torre and Steskal 2012: 284. Kalinowski (2002: 121, n. 44) puts the start date at 146/8.

⁶⁶⁶ This area of the city was called the Koressos (Kalinowski 2002: 124).

of the city's stadium and 85 m east of a colonnaded courtyard.⁶⁶⁷ The area between these baths and the theatre baths to the south was commercial.⁶⁶⁸ The later second-century East Gymnasium was located in the southeastern most area of the city.⁶⁶⁹ It opening onto the South Street that led from the Upper Agora to the Magnesia Gate, which was directly beside the baths. The west side of the baths' gymnasium was bordered by the Hellenistic wall that surrounded the Roman city. ⁶⁷⁰ The plateau near the baths and Magnesian gate held the city's pottery district.⁶⁷¹

The final public bath known from Ephesus was the Stoa Basilica Baths or Baths of the Upper Agora. Although the baths are attached to the eastern short end of the stoa-basilica of the Upper Agora (the basilica was dedicated by C. Sextilius Pollio in 11 CE),⁶⁷² these baths are a much later addition to this public space, as a comparison of its architectural layout with other bath complexes from other sites suggests a late second century CE date.⁶⁷³

Patara, Lycia and Pamphylia

There are four known baths at Patara, the seat of the governor in Lycia and Pamphylia, located on the southern coast of southwest Turkey. The Nero/Vespasian Baths are the earliest⁶⁷⁴ and are located at the northeast corner of the agora. They are approximately 60 m east of the

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⁶⁶⁷ Although called the "Macellum," this 200CE, 65 m x 65 m colonnaded courtyard, complete with twelve beam rotunda in the centre cannot be the city's macellum (which inscriptions put in the agora) (Scherrer 1995: 190). Its function is still undetermined.

⁶⁶⁸ Inscriptions on the pillars of the latrine suggest that they were rented to nearby professional and craft groups (Scherrer 1995: 170). Kalinowski (2002: 125) has suggested that these baths may have served "a more localized and specific group of users," however, they have still been included in the final tally as a public bath.

⁶⁶⁹ Scherrer (1995a: 72) places the bath in the second half of the second century CE while Raja (2012: 79) argues that they belong to the same period as the Vedius Bath-Gymnasium (the reign of Antonius Pius). ⁶⁷⁰ Yegül and Favro 2019: fig. 10.24.

⁶⁷¹ Scherrer 1995: 74.

⁶⁷² Thür 2004: 222.

⁶⁷³ Raja 2012: 70-71.

⁶⁷⁴ There has been some debate about whether the baths were erected under Nero or Vespasian, although most scholars now ascribe the baths a Neronian date. For discussion of the date of these baths and the inscription used to date them, see Koçak and Şahin 2020: 195-200; Eck 2008; Şahin 2008).

main north-west street of the settlement that leads north from the agora; however, a gymnasium added to their west side at the end of the second century connected them to the main street via a contemporary propylon. The late first or early second century CE Central Baths lie approximately 70 m northwest of the Nero/Vespasian Baths and 30 m east of the main road. The Harbour or North Baths, also late first or early second century in date, are located approximately 65 m east of the inner port and about 110 m southwest of the Modestus city gate. As Patara's largest baths, they likely served those entering the city by land and sea. The smallest, and least well-known of the city's baths are the Small or South-West Baths, located on a small hill approximately 60 m west of the main north-south road and 100 m west of the Central Baths. Not much else is known about its immediate surroundings and so it is not included in the final count.

Coloniae

Alexandria Troas, Asia

The Baths-Gymnasium of Herodes Atticus in Alexandria Troas, a Greek city and later Augustan colony located on the northwestern coast of Turkey, are attributed to the building program of Herodes Atticus and therefore are thought to date to the 130s CE.⁶⁸⁰ They are located in the eastern sector of the city, 450 m west of the main east city gates.⁶⁸¹ A *nymphaeum* lies 50

⁶⁷⁵ All measurements taken from Koçak and Erkoç 2016: fig. 2. On the plan the baths are labelled as follows: the Nero/Vespasian Baths = 15, the Central Baths = 13, the Harbour or North Baths = 9, and the Small or South-West baths = 14.

⁶⁷⁶ Koçak and Şahin 2020: 194; Aktaş 2016: 1, 5, 6; Erkoç and Aktaş 2016: 64.

⁶⁷⁷ Gülşen 2008: 456; Korkut 2003: 446. Date: Farrington 1995: 11-12, 62.

⁶⁷⁸ Erkoç et al. 2017: 132. They may have been built after the Central Baths (Farrington 1995: 75).

⁶⁷⁹ Erkoc 2018: 240.

⁶⁸⁰ Klinkott 2014: 26. Feuser (2011: 257) and Öztaner (1999: 35) give a more specific date of 134/135 CE for the start of the building program, the date at which Herodes Atticus became the *legatus Augusti pro praetore ad corrigendum statum liberarum civitatium provinciae Asia*.

⁶⁸¹ All measurements taken from the Alexandria Troas Stadtplan (2020: https://www.uni-muenster.de/AsiaMinor/projekte/grabung-at/projekte/at-karte.html).

m to the south of the baths, which along with the baths and aqueduct were part of the building program sponsored by Herodes Atticus.⁶⁸²

There is some doubt as to whether the so-called "Central Baths" was actually a bath complex and so will not be included in this survey. There is another possible bathing facility marked on the on the site plans created by the "Anatolia Research Project" run by Münster University who are responsible for excavations at Alexandria Troas. It lies about equidistant between the stadium and the Roman forum; however, it has not yet been published and no information is available about its immediate surroundings. It has, therefore, also not been counted in the final tally of bath locations.

Pisidian Antioch, Asia

The one known bath from Pisidian Antioch, about 90 km northeast of Sagalassos, is in the northwest corner of the city.⁶⁸⁵ Excavations have not yet revealed what lays around the baths, but it is speculated that the city wall ran nearby, and a city gate must be somewhere to the west (to which the *cardo maximus* leads).⁶⁸⁶

⁶⁸² Kuhn 2012: 424; Öztaner 1999: 35.

⁶⁸³ On the "Anatolia Research Project" website (run Münster University) they write that: "[t]he actual function of the Roman "central thermal baths" also remains open for the time being. But it is probably not a bathing facility." Zentralthermen 2020: https://www.uni-muenster.de/AsiaMinor/projekte/grabung-at/projekte/turmthermen.html. See Japp et al. 2011: 217-237 for a full discussion of the 2008 and 2009 excavations of this structure. The structure was separated from the northeastern side of the forum by a street, and Japp et al. (2011: 233) believe that it belongs to the same large, monumental building project as the forum and so dates to the founding of the Augustan colony between 30 and 12 BCE. In a 2010 article discussing the 2008 excavations of the forum area, Schwertheim and Tanriöver (2010: 86-88) seem to confirm the structure's identification as a bath-building, although this may be because they did not yet have the results of the 2009 excavations.

⁶⁸⁴ See the Alexandria Troas Stadtplan by the Research Center of Asia Minor, Münster University (2020: https://www.uni-muenster.de/AsiaMinor/projekte/grabung-at/projekte/at-karte.html) for all known structures on the site.

⁶⁸⁵ The baths date to the first half of the first century CE, likely part of the same building program as the *nymphaeum* and aqueducts that lay several hundred meters to the bath's southeast and northeast respectively. ⁶⁸⁶ Ossi 2006: New Plan of Pisidian Antioch.

Cremna, Lycia and Pamphylia

Only one extant bathing facility is found at Cremna, a Pisidian city and later Roman colony, which is situated on a high plateau about 70 km north of the southern coast of southwest Turkey. Dating to the first or early second century, ⁶⁸⁷ it lies directly (ca. 10 m) south of the Hadrianic Roman Forum and Basilica of Longus complex and 25 m southwest of the theatre. ⁶⁸⁸ To the south of the baths are the cliffs that border the south side of the city, and the south city gate is ca. 70 m to the baths' southwest. Approximately 100 m to the baths' northwest stood arches opening to an important colonnaded city street and a Hadrianic Temple.

Cities and towns with no known formal status

Aphrodisias, Asia

The Carian city of Aphrodisias in southwest Turkey (ca. 90 km east of Ephesus and ca. 40 km west of Hierapolis) has two known public baths. The early second century CE Hadrianic Baths were one of the largest public structures in Aphrodisias and sit, along with their forecourt, at the west end of the South Agora. The North Agora borders the north side of the South Agora. The mid-second century Theatre Baths lie southeast of the theatre, a large forecourt (the Tetrastoon) at their north end, connecting them to the theatre and main street. ⁶⁹⁰ In the *insula* directly south is a structure called "Gaudin's gymnasium" an apsidal hall or court which is more

⁶⁸⁷ Mitchell and Waelkens 1988: 56. Michell and Waelkens further suggest a possible Hadrianic date based on a comparison with the South Baths at Perge. As will be discussed below, however, the Perge baths were built before the reign of Vespasian, although they may have had a Hadrianic phase. Inan (1972 and Horsley 1987: 79 after Inan) also argued for a Hadrianic date, however, he interprets this building as a library and dates it through a comparison with architectural similarities to other Hadrianic libraries. As the bath have never been excavated there is no stratigraphic material to confirm this date.

⁶⁸⁸ All measurements taken from Yegül and Favro 2019: fig. 10.22.

⁶⁸⁹ Raja 2012: 39; Ratté 2002: 23.

⁶⁹⁰ Raja 2012: 19, fig. 10. The *tetrastoon* dates to the fourth century CE (see Chaisemartin and Theodorescu 1991:

²⁹ for the date), but it is presumably built over an earlier predecessor (Raja 2012: 46; Ratté 2002: 24).

likely a house. ⁶⁹¹ Approximately 60 m to the southeast of the baths is a late antique fountain building ("Gaudin's Fountain"), around which shops have been found.⁶⁹²

Hierapolis, Asia

The Large Baths at Hierapolis, a thermal spa turned Graeco-Roman city in southwestern Turkey, were added to the city in the mid-second century. Built to make use of the 36° C waters which still flow through the site today, ⁶⁹³ they are thus found in the western sector of the city, near the travertine terraced thermal pools. The baths were built oriented towards the colonnaded main north-south street (Plateia of Frontinus) that lay 115 m to their northeast. 694 The city's early imperial Central Agora was situated between the baths and the main street. 695 Another set of baths was added to the city in the second or third century CE and were located approximately 135 m outside the North Gate (also referred to as the Frontinus Gate) and the northwest corner of the North Agora. 696

Magnesia ad Maeandrum, Asia

Magnesia on the Meander, an Ionian city on the road between Ephesus and Tralles in southwestern Turkey, has two bath-gymnasium complexes: the City Gymnasium and the Lethaeus Gymnasium. 697 The City Gymnasium is located just west of the topographical centre of

⁶⁹¹ For Gaudin's gymnasium see Oxford University's Aphrodisias Excavations website (2019): http://aphrodisias.classics.ox.ac.uk/gaudinsgym.html. There is a distance of about 40 m between gymnasium and the baths (Mark 2010: Aphrodisias. State Plan with City Grid).

⁶⁹² For Gaudin's Fountain see Oxford University's Aphrodisias Excavations website (2019): http://aphrodisias.classics.ox.ac.uk/gaudinsfountain.html; Öğüş 2015: 304. Measurement taken from Mark 2010: Aphrodisias. State Plan with City Grid.

⁶⁹³ Yılmaz 1994: 200.

⁶⁹⁴ Yegül and Favro 2019: fig. 10.79; D'Andria 2001: 104.

⁶⁹⁵ Ismaelli et al. 2017. The agora's initial construction date is thought the be the Augustan or Julio-Claudian period based on decoration surviving architectural materials of the east stoa (Ismaelli et al. 2017: 135).

⁶⁹⁶ Campagna and Scardozzi 2013: fig. 1.

⁶⁹⁷ Nielsen (1993a: 37) dates the City Gymnasium as "probably not later than AD 150," while the Lethaeus Gymnasium has dated more generally to the "Roman period" (Saldana 2015: 23). Bingöl (2007: 162, 168) dates the baths both to the second or third century CE.

town, about 225 m northeast of the stadium.⁶⁹⁸ The main east-west street, thought to connect the west gate to the agora, is conjectured to border this bath-gymnasium on its north side⁶⁹⁹ with a Temple of Dionysus possibly lying "a few steps west" to the complex's west.⁷⁰⁰

The Lethaeus Gymnasium is on the opposite side of the city, 100 m southeast of the Artemis Sanctuary and beside the river from which it gets its name.⁷⁰¹ Once the street running along the north side of the City Gymnasium complex passed the agora it must have continued east on a slightly different orientation to pass in front of the Lethaeus Gymnasium on its way out of the city. If the conjectured line of this street is correct, it would place this bath-gymnasium complex near a gate and a bridge fording the Lethaeus River. The east city wall is also posited to have run along the bath-gymnasium's east side. ⁷⁰²

Miletus, Asia

Located on the western coast of the southern Turkey near the mouth of the Meander River, the Carian city of Miletus has four (possibly five) public baths, three of which are public. The earliest Roman-style baths at Miletus (and the earliest extant example of a bath-gymnasium complex) are called the Baths of Vergilius Capito after their benefactor. They were constructed in the Claudian period immediately north of the so-called "Hellenistic gymnasium," in the monumental centre of town. The bath-gymnasium complex was separated from the North Agora by a wide colonnaded street and flanked on their northern side by a Delphinion, beside which

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⁶⁹⁸ All measurements taken from Bingöl and Kökdemir 2012: plan 1 and Saldana 2015: fig. 31.

⁶⁹⁹ Saldana 2015: 88; fig. 31. The site's excavator O. Bingöl (2007: 136, 162) placed the main street south of the bath-gymnasium complex, but Sandana (2015: 88) refutes this.

⁷⁰⁰ Saldana 2015: 34. The existence and location of this temple was inferred by O. Kern and C. Humann from three inscriptions (See Saldana 2015: 33-34 for discussion and references for Kern and Humann).

⁷⁰¹ Bingöl and Kökdemir 2012: 400. The entire structure covers an area of approximately 5000 m² (Bingöl 2020: 130).

⁷⁰² Saldana 2015: 88-89, fig. 31.

⁷⁰³ See Trümper 2015: 196-203 for a discussion of the highly debated function of this second century BCE structure.

was the gate leading to the harbour. South of the Hellenistic gymnasium was a *nymphaeum*, approximately 75 m distance from the bath complex.⁷⁰⁴

The next bath to be added to the city was the "Baths of Humei Tepe," in the late first century CE. They lie on the northeastern side of the harbour and approximately 120 m north of the Capito Baths and monumental centre of town. The largest baths are the Faustina Baths (midsecond century CE), which are 70 m west of the South Agora. There is a Serapeion 40 west of these baths (between it and the South Agora), and a Roman *heroon* 30 m to the northwest. The corner of the complex's palaestra meets with the side of the stadium. The stadium of the other baths, the stadium, the rest of the buildings that make up the monumental centre, and the city *insulae*.

At the turn of the second century, another set of baths was added to the city 80 m south of the South Agora. The South Agora of It is much smaller than the previously discussed bath-gymnasium complexes and did not fill the *insula* in which it sat. While there is the possibility that it served a private house, it is also possible that that it was a small public bath that served the residential area speculated to lie around it. The Finally, a third or fourth century bath lies 25 m removed from the west end of the stadium and 10 m from the northeast corner of the West Agora.

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⁷⁰⁴ All previous measurements taken from Yegül and Favro 2019: fig. 10.18 and Kleine 1980: fig. 10.

⁷⁰⁵ See Kleine 1980: fig. 10.

⁷⁰⁶ Measurement taken from Kleine 1980: fig. 10.

⁷⁰⁷ Niewöhner 2015: 180. If not originally open to the public, it seems to have become so in the fifth century when it was divided to allow mixed sex bathing. Also, although geophysical survey has been completed in this area, excavation has not yet revealed what is in the neighbouring *insulae*. The site's excavators, however, believes that they are likely residential (Niewöhner 2015: 180). This bath has not been included in the final count.

⁷⁰⁸ Tuttahs 2007: 319, 324; Kleine 1980: 110. Measurements from Tuttahs 2007: fig. 358. The final two baths are not included in the final location count.

Nysa ad Maeandrum, Asia

Nysa, located on north side of the Meander River in southwest Turkey about 80km east of Ephesus, is described by Strabo as a "a double city, so to speak, for it is divided by a torrential stream that forms a gorge, which at one place has a bridge over it, joining the two cities." ⁷⁰⁹

There is evidence of two baths at Nysa, one on either side of this gorge. On the west side was a second century CE bath-gymnasium complex ⁷¹⁰ and on the east are the remains of the bath that has not yet been investigated. The gorge was partially covered by a stadium in the Roman period, at the south end of which is the bridge mentioned by Strabo. Excavation on the southeast side of the gymnasium's eastern portico has revealed what excavators hypothesized was a monumental entrance to the gymnasium from the bridge, which would have connected the bath-gymnasium complex to the main centre of the city on the eastern side of the ravine. ⁷¹¹ It is on this eastern side that the other bath remains are located, approximately 50 m to the north of where the bridge would meet the eastern side of the ravine. ⁷¹² This side of the city also housed the first century BCE agora and second century CE *gerontikon*, the first 125 m to the east and the second 125 m northeast of the eastern bath remains. ⁷¹³

⁷⁰⁹ Strabo *Geographica* 14.1.43, translation by Jones (1924).

⁷¹⁰ Strabo writes in the Augustan period that the "gymnasium of youths" is located on the west side of the ravine (Strabo *Geographica* 14.1.43, translation by Jones 1924). This suggests that the second century CE bath-gymnasium complex likely replaced an earlier gymnasium in this area, although evidence of an earlier structure have not yet been found. The remains south of the gymnasium of have not been excavated; however, surface clearing supports its identification as a bath (Beckmann 2012: 157, 172) and not a church as has been previously suggested (Von Diest 1913: 46, Plate XI, Plan 2; Nielsen 1993a: 105, n. 73).

⁷¹¹ Beckmann 2012: 173.

⁷¹² All measurements taken from Beckmann 2008: fig, 1. As already mentioned, these baths have not yet been excavated so nothing is known of their date. The size of their visible remains however, are quite large which may suggest a public function.

⁷¹³ Kadıoğlu and Kadıoğlu 2008: 4.

Parion, Asia

An important port city in the Roman period on the Hellespont in northeastern Turkey, Parion has two known baths. The most-well known and largest example was built in the second century CE,⁷¹⁴ 70 m east of the theatre and 150 m from the shoreline.⁷¹⁵ A temple lies just 30 m beyond the theatre and the town's harbour another 180 m beyond that.⁷¹⁶ Approximately 150 m to the south of these baths is the *odeum*. Another smaller first century CE bath has been partially excavated 250 m east of the other baths and also approximately 150 m from the shoreline.⁷¹⁷ While its excavators discuss this bath (along with the one to its west) as serving the port of the city,⁷¹⁸ they also acknowledge that it may belong to a large Roman house and further excavation is needed to identify its public or private function.⁷¹⁹ As a result, it has not been included in the final tally.

Pergamum, Asia

The Mysian city of Pergamum, located in northwestern Turkey, 26 km inland from the Aegean Sea, has seven known Roman baths, although the public function of three of these facilities is not secure, and one appears to be semi-private. Among the best studied of the baths at Pergamum are the two located in the lower city, flanking the east and west sides of the palaestra on the upper terrace of the Hellenistic gymnasium. The West Baths, dating to the mid-first century CE, 720 are partially separated from the palaestra by a cultic area (Gymnasium-Temple R),

⁷¹⁴ Ergül 2019: 32; Yılmaz 2018: 215; 2015: 65.

⁷¹⁵ Yılmaz 2018: 209; 2015: 57.

⁷¹⁶ Keles 2015: fig. 111.

⁷¹⁷ Çelikbaş and Oyarçin 2014: 69, 70; Ergürer 2012:16.

⁷¹⁸ Çelikbaş and Oyarçin 2014: 69

⁷¹⁹ Çelikbaş 2015: 76. In a conference paper abstract Keleş et al. (2018: 15) write that the Slope Bath "falls within the category of private baths."

⁷²⁰ Trümper 2015: 190.

a Greek *lourton*,⁷²¹ and other *exedrae*, while the larger East Baths, added in the Hadrianic period,⁷²² could be accessed more directly from the gymnasium palaestra along a short corridor.⁷²³ A small theatre and a sanctuary of Hera lie north of the palaestra between the two baths. A sanctuary to Demeter is northwest of the West Baths, while the Lower Agora is to its south, separated from the baths by the House of Attalos.⁷²⁴ A third public bath (the Baths of the Acropolis), dating to the first half of the second century CE, is known to lie on the road that leads from the Upper to Lower city levels, and is about 65 m southeast of the Upper Agora.⁷²⁵ The Pergamum Digital Map from the German Archaeological Institute pinpoints one more bath, a bath-gymnasium complex, down the western slope of the acropolis. It lies between the Bergama Stream (also called the Silenus River) to its west and a road leading from the lower city up to the acropolis, which borders the baths on their eastern side.⁷²⁶

There are another three structures that have been tentatively identified as large baths in the lower city. One is 100 m southeast of the theatre, 727 and another is 165 m southeast of the so-called "Red Hall" and 135 m northeast of a bridge crossing the Silenus River. 729 The third lies

⁷²¹ The baths were accessed from the palaestra by a corridor of rooms along the southern axis of the baths. The building of these rooms and the bath itself) necessitated the partial cutting of the higher elevated rock on which Gymnasium-Temple R stood (Japp 2014: 292).

⁷²² For a discussion of the dating of this bath, see Trümper 2015: 191, n. 72.

⁷²³ The corridor is marked as 'C' on most plans, i.e., Trümper 2015: fig. 1, 2, 5; Japp 2014: fig. 2.

⁷²⁴ No exact measurements are given for the buildings surrounding the East and West baths as the area in which they sit is heavily terraced making it difficult to calculate distances between the buildings. See Trümper 2015: fig. 1, 2, 5 and the Pergamon Digital Map 1.1 by B. Ludwig (2020) from the German Archaeological Institute geoserver website for bath locations.

⁷²⁵ The structure has not been fully excavated and so the date and full extent of the bath is unknown (Wulf 1994: 162). Despite its small size (200 m²) is still considered a public bath because of its location (Japp 2014: 265, 296). Measurement taken from Pirson 2007: fig. 1. There is in fact one more bath on the southern slope on the main road between the Gymnasium baths and the Upper Agora baths; however, it is thought to have been privately owned and perhaps not fully open to the public (See Japp 2014: 296-299, esp. 299).

⁷²⁶Ludwig 2020: Pergamon Digital Map 1.1.

⁷²⁷ See Wulf 1994: 160 for the "baths" southeast of the theatre. Measurement taken from Pirson 2007: fig. 1.

⁷²⁸ The Red Hall is a monumental temple thought to honour Egyptian gods (Wulf 1994: 157-8, 167-8). See also Radt 1999: 200-209. Measurement taken from Pirson 2007: fig. 1.

⁷²⁹ See Wulf 1994: 160 for this "bath-gymnasium" near the Red Hall. Measurement taken from Pirson 2007: fig. 1.

on the north side of the *Via Tecta* (Sacred Street) that leads to the Asklepion (150 m away) in the southern plain of the lower city.⁷³⁰ None of these structures have been fully excavated or published, making it difficult to confirm their function as a public bath or their period of use⁷³¹ (and so are not included in the final count).

Priene, Asia

The only known Roman-style bathing facility from Ionian Priene, located approximately 15 km north of the Miletus and 10 km off the Aegean coast in southwestern Turkey, is dated to the Augustan period or first century CE. The baths were an addition to the north end of the pre-existing Upper Gymnasium and together they took up one *insula*, located southeast of the city's theatre. The baths and theatre both face onto one of the major east-west roads of the city that connected to the eastern city gate. In the *insula* directly south of the baths and gymnasium are the *bouleuterion* and Prytaneion, in front of which is the eastern most section of the Sacred Stoa that fronts onto the northern side of the agora. A sanctuary to the Egyptian Gods lay two *insulae* to the east of the baths and one to Athena three *insulae* to the west.

Sardis, Asia

Sardis, the Lydian capital located in western Turkey and about 80 km west of Smyrna, may have up to three monumental public baths; only one, however, has been fully investigated: the monumental bath-gymnasium complex in the northwest corner of the city, which was

⁷³⁰ Japp 2014: 300. Measurement taken from Piron 2007: fig. 1.

⁷³¹ Brückener 2018: 8, 207, n. 563; Japp 2014: 300.

⁷³² There is some debate over the bath's addition date. See Trümper (2015: 209 and n. 111) for a full discussion with references.

⁷³³ Sondages behind the south-eastern terrace wall of the Gymnasium date the structure to the third or furth centuries BCE (Raeck and Rumscheid 2010: 81).

⁷³⁴ A total of 60 m separated the baths from the Temple to Zeus at the east end of the city's agora. Measurement and bath location taken from Kleine 1980: fig. 61.

completed in the late second or early third century CE. Perhaps the most monumental of all the bath-gymnasia in Turkey, the so-called "Bath-Gymnasium" is located in what Fikret Yegül calls "the hub of the new downtown."⁷³⁵ The complex's southeast corner is at the junction between the two main roads of the city: the Marble Road and the East Road. Beyond this, little can be said for certain about how the complex related to the Roman city plan.⁷³⁶ Yegül, however, conjectures that the area north of the Marble Road (including the bath area) was filled with public monuments, while the area to the south was largely residential.⁷³⁷

Another Roman bath (perhaps late first or early second century in date) is known further east, lying just inside the Late Roman city wall. Even less is known about the surroundings of this building. The same can be said about the surroundings of Building C, a Roman basilica that Yegül hypothesizes is the frigidarium of another monumental bath complex. It lies about equidistant between the Bath-Gymnasium (655 m) and Baths CG (685 m) and slightly further north, though still within the Late Roman city wall.

Smyrna, Asia

The only securely identified Roman baths at Ionian Smyrna,⁷⁴¹ on the west-central coast of Turkey, approximately 55 km northwest of Ephesus, are those which lie in the *insula*

⁷³⁵ Yegül 1987: 47.

⁷³⁶ Yegül 1986: 2; 1987: 47, 48, 52.

⁷³⁷ Yegül 1986: 2; 1987: 51, 52.

⁷³⁸ Rousseau 2019: fig. 2; Yegül 1986, fig. 3; Hanfmann and Waldbaum 1975: 129.

⁷³⁹ Yegül 1987: 50.

⁷⁴⁰ See Yegül 1986, fig. 3 Building 30. Neither of the final two baths are included in the final tally.

⁷⁴¹ A "Roman Bath Complex" is labelled on Yolaçan and Ersoy's map (2018: fig. 2), northeast of the baths near the agora near the east line of the city wall. No such bath, however, appears in literature on the site and so may not yet be published. Another bath was uncovered in 2016 under the Kaptan Mustafa Paşa Business Center in Konak District of Izmir, two blocks removed from the modern shoreline and about 250 m west of the Agora baths. This bath also does not appear to be published; however, its discovery and future fate has been covered in a numerous news articles, e.g., "İzmir'de Bulunan Antik Hamamın Akıbeti Belirsiz," and "2'nci yüzyıldan kalma Roma hamamı kalıntılarını yosun kapladı." (See bibliography for web links).

northwest of the Roman *bouleuterion* that flank the west side of the agora.⁷⁴² The harbour lies west of the baths, and the street leading in from the Magnesian Gate to the harbor is thought to run along the bath's north end. The road leading in from the Ephesian Gate is likewise conjectured to run along the bath *insula*'s west side. If the conjectured paths of these two important roads are correct, they would intersect at the northwest corner of the bath *insula*. ⁷⁴³

Arykanda, Lycia and Pamphylia

There is only one pre-fourth century public bath from Arykanda, a Lycian city located 25 km inland from the south coast of southwestern Turkey. ⁷⁴⁴ The Great Bath-Gymnasium (or South Baths) dates to the late first or second century CE⁷⁴⁵ and is located in the southeastern sector of the city. These baths are 70 m southeast of the civic agora, ⁷⁴⁶ and their northern wall doubles as a retaining wall for the road of the necropolis and the graves which lie in the upper terraces to the northeast. ⁷⁴⁷ A ravine wraps around the baths' south and west sides. ⁷⁴⁸

Oenoanda, Lycia and Pamphylia

Oenoanda, a Lycian city located in southwestern Turkey on a hilltop in a valley of the Xanthos River, has two known public baths: Ml 1 and Mk 1. The earliest, MI 1, is thought to date to approximately 70-90 CE⁷⁴⁹ and sits on the southern side of the road leading north-east

⁷⁴⁸ Yegül and Favro 2019: fig. 10.36.

⁷⁴² The baths, along with the new agora, were built after the earthquake in 177 CE which destroyed much of the city (Yolaçan and Ersoy 2018: 188, 192).

⁷⁴³ See Yolaçan and Ersoy 2018: fig. 2 for the position of the baths and conjectured road lines. No scale is provided with their map and therefore exact measurements are not possible.

⁷⁴⁴ There are another five known baths at Arykanda: the Naltepesi Baths, the Fifth Baths, the sixth Baths, the Inscribed House Baths, and the Hillside Bath (See Sancaktar 2018: plan 1 for their locations and Bayburtluoğlu 2003: 132-139, 182-189 for more information). All are either private or date to the fourth century and so not included in this survey. Two of these baths, the Fifth Baths and the Inscribed House Baths are labeled together as the Small Baths by Yegül and Favro 2019: 10: 36). It is unclear from the literature if/how the Fifth Bath and the Inscribed Baths relate to the Small Baths.

⁷⁴⁵ Bricker 2016: 107; Farrington 1995: 62; Knoblauch 1993: 129.

⁷⁴⁶ Measurements from Sancaktar 2018: plan 1.

⁷⁴⁷ Bayburtluoğlu 2005: 128.

⁷⁴⁹ Farrington 1995: 156. A new inscription dates the bath's completion to 73 CE (Milner 2016: 105).

away from the agora, opposite Baths Mk 1. Although it originally stood 30 m removed from the agora, ⁷⁵⁰ later additions of a palaestra (Ml 2) and possibly another small apsidal gallery (Ml 3) would have connected it to the northeastern portico of the agora. ⁷⁵¹ The second century CE⁷⁵² Mk 1 baths were added across the north-east street from the MI 1 baths. In their final form (with palaestra) they were approximately 60 m from the agora. To the east of these baths is a large open space (now called the Esplanade), which R. Ling and A. Hall suggest may have at one time held the stadium. ⁷⁵³

Perge, Lycia and Pamphylia

Perge, a Pamphylian city on the southwest coast of Turkey, about 50 km northwest of Side, had two baths, each near a city gate. The bath-gymnasium to the south (the South Baths) was dedicated during the reign of Vespasian, ⁷⁵⁴ and sits 70 m north of the Roman South Gate near the end of Perge's main north-south road. ⁷⁵⁵ The city's Severan commercial agora was 35 m east of these baths and was separated from them by the Hellenistic city gate and main north-south road. Two *nymphaea* were also added to the street-face of the bath's palaestra in the same time period. ⁷⁵⁶ The bath originally sat outside the Hellenistic wall; however, in a later construction phase it expanded north, incorporating some of the wall. ⁷⁵⁷ The other bath, third century in date, ⁷⁵⁸ is in the northwest part of the city, on the south side of the colonnaded road

⁷⁵⁰ All measurement from Milner 2016: fig. 2.

⁷⁵¹ It is still uncertain whether the apsidal hall (MI 3) was part of the bath building or not (Milner 2016: 107, fig. 2; Farrington 1995: 155, 156; Coulton 1986: 65, fig. 2).

⁷⁵² Farrington 1995: 155; Stendon and Coulton 1986: 44.

⁷⁵³ Ling and Hall 1981: 41.

⁷⁵⁴ The baths' construction may have begun in the Claudian period when the urban area was expanded south of the Hellenistic city wall (Şahin 1999: 66). For a full discussion of the inscription on which the dating of the bath depends, see Şahin 1999: 66-71, n. 54.

⁷⁵⁵ All measurements taken from Yegül and Favro 2019: fig. 10.21.

⁷⁵⁶ Abbasoğlu 2001: 182, fig. 7.2.

⁷⁵⁷ Şahin 1999: 66.

⁷⁵⁸ Mansel 1968: 102.

running west from the main north-south street. The bath is adjacent the line of the west Hellenistic wall and sits just 50 m northwest of the western gate. The first century CE Cornutus palaestra lies on the north side of the colonnaded street 75 m away.⁷⁵⁹

Phaselis, Lycia and Pamphylia

The Large Bath-Gymnasium of Phaselis, a Lycian harbour town on the western shore of the Gulf of Antalya, sits on the west side of the main colonnaded road of the city. They are positioned between the city's harbour entrance of this street (ca. 30 m to their northeast) and the Hadrianic Tetragonos Agora (15 m to their southwest). Shops associated with the port are across the street, at the street's harbour entrance. There is another smaller public bath (Bath ZF) 35 m southeast of the Large Baths and 10 m north of the theatre. This bathing facility fronts onto an irregularly shaped open area, the "civic plaza," to the northwest of which sits the Tetragonos Agora. A latrine building lies just north of the baths at the east entrance of the colonnaded street.

Rhodiapolis, Lycia and Pamphylia

The Large Baths at Rhodiapolis, a Lycian city located on a hill less than 10 km from the southern coast of southwest Turkey and 25 km southeast of Arykanda, are a second century CE bath-gymnasium, 764 which lies relatively isolated from the monumental centre of town. They are situated on the lowest level of the eastern slope of the hill on the upper slopes of which other

⁷⁶³ Yegül and Favro 2019: 626, fig. 10.43.

⁷⁵⁹ Kara 2014: 280; The palaestra was dedicated to Nero by C. Iulius Cornutus and his wife (Sahin 1999: 29, 51-52, n. 36).

⁷⁶⁰ The baths were likely not built before the third century CE (Arslan and Tüner Önen 2016: 308). The baths are also referred to as the ZB/ZC baths (See Schafer 1981: plate 39).

⁷⁶¹ All measurements taken from Schafer 1981: plate 39.

⁷⁶² Arslan and Tüner Önen 2016: 305.

⁷⁶⁴ Özsait et al. (2009: 245-245) date these baths to the mid-second century or earlier and argue for its identification as a bath-gymnasium given the size of its palaestra.

public buildings sit (e.g., theatre, agora, religious buildings).⁷⁶⁵ The baths were terraced into the slope overtop of four large cisterns.⁷⁶⁶ The main street leading into the town from the southeast passes the baths' south side, making it the first building visitors to the city would meet when entering from the southeast. A necropolis stretches along this road near the baths, and a residential area lies to the baths' east.⁷⁶⁷

Sagalassos, Lycia and Pamphylia

As was seen at Conímbriga, Sagalassos, a Pisidian city located about 25 km northwest of Cremna, has two baths that shared the same location: the east side of the city's lower (commercial) agora. The original baths, the "Old Baths" were in operation by 10-30 CE.⁷⁶⁸ By 165 CE,⁷⁶⁹ however, they had been replaced by a larger bath-gymnasium complex. A Hadrianic *nymphaeum* sat 30 m to the newer bath's northwest at the north end of the agora. The city's *odeum*⁷⁷⁰ was 10 m behind the *nymphaeum*.⁷⁷¹ The second century baths' main entrance was on their north side and opened up onto the main east-west street of the city.⁷⁷² The main colonnaded north-south street also began along the baths' north side.⁷⁷³

⁷⁶⁵ The excavators of the baths suggest that the baths were perhaps located in this position as there was no room for them on this hill, in a position that would allow enough sunlight, or perhaps to allow for greater water pressure (Çevik et al. 2010: 41).

⁷⁶⁶ Bricker 2016: 86; Cevik et al. 2010: fig. 2.

⁷⁶⁷ See Cevik et al. 2010: figs. 1, 2, and 19 for the baths' location.

⁷⁶⁸ Waelkens et al. 2013: 45.

⁷⁶⁹ Although likely begun in the Hadrianic period, a dedicatory inscription found in one of the bath's *caldaria* speaks of its inauguration in 165 CE honouring the city's deities and the emperors Lucius Verus and Marcus Aurelius (Martens et al. 2012b: 159; Waelkens 2009: 339).

Although started in the Augustan period, the *odeum* took two centuries to complete (Waelkens 2009: 339).

All measurements taken from Yegül and Favro 2019: 10:32.

⁷⁷² Waelkens et al. 2013: 45; Waelkens 2009: 341.

⁷⁷³ Martens et al. 2012a: fig. 9.1.

Selge, Lycia and Pamphylia

There are two known baths at Selge, a Pisidian city approximately 40 km north of the southern coast of Turkey and about 50 km northwest of Side. A small bathing facility sat at the northwest entrance to the city's Upper (state) Agora at the end of the colonnaded street connecting this agora on the south hill to a temple located on the north hill of the town. A nymphaeum sat just north of the baths. The agora's market hall lay on the agora's north side, adjacent the baths. A palaestra, belonging to a large bath, connects to the south end of the stadium. This bath and palestra, along with the theatre and Lower (commercial) Agora are extramural, located in an area northeast of the other bath and agora. The palaestra sits approximately 30 m southeast of a city gate.

Side, Lycia and Pamphylia

Three public baths are known at Side, a Pampylian harbour city located on the south coast of Turkey about 50 km southeast of Perge. Only two, however, are pre-fourth century and will be included in this survey. The earliest are the second century Harbour Baths, located at the eastern tip of the artificial triangular harbour. In the early-to-mid third century CE, another bath was added (the Large Baths) which sat on the eastern side of the southern half of the colonnaded street that travelled southwest from the theatre and agora area down towards the cult area of the town.

⁷⁷⁴ Yegül and Favro 2019: 625.

⁷⁷⁵ See Yegül and Favro 2019: fig. 10.40 for location.

⁷⁷⁶ Yegül and Favro 2019: 625.

⁷⁷⁷ For locations and measurement see Yegül and Favro 2019: fig. 10.40.

⁷⁷⁸ The excluded bath is fourth century (Nielsen 1993b: 45) or fifth century (Mansel 1963: 154 and Nollé 2001: 143) in date and is located north of the agora.

⁷⁷⁹ Mansel 1963: 148; Nielsen 1993b: 45.

⁷⁸⁰ See Mansel 1963: Stadtplan von Side and Yegül and Favro 2019: fig. 10.22 for location.

⁷⁸¹ Nielsen (1993b: 45) has suggested the mid-third century while Mansel (1978: 231-232) puts forward an early third century CE date. See Mansel 1963: Stadtplan von Side and Yegül and Favro 2019: fig. 10.22 for location.

Tlos, Lycia and Pamphylia

The two known baths of Tlos, a Lycian city situated on the western slopes of the Uyluk Hill in the Upper Xanthos Valley, are peculiarly situated right next two one another, southwest of the agora, between the stadium area to the northwest and the theatre to the northeast. The larger of the two, the Large Baths, is further to the southwest, at the edge of the city, overlooking the Xanthos Valley. A Temple to Kronos lies to its northeast. The smaller baths sit about 15 m north of the Large Baths. These smaller baths have what excavators believe to be a gymnasium attached to its southern side. This gymnasium extends to northeast towards the agora and may join with its portico.

Xanthos, Lycia and Pamphylia

There are two known Roman baths at Xanthos, a Lycian city located on the south slopes of a hill overlooking the Xanthos River in southwestern Turkey, although neither has yet been fully studied. The larger of the two dates to the second or third century⁷⁸⁹ and is located between the city's third century CE Upper and Lower Agoras (73 m to the east) and the second century CE theatre and Flavian Roman agora (40 m to the west).⁷⁹⁰ The principle east-west street runs 40

⁷⁸² Korkut et al. 2018: fig. 2.

⁷⁸³ Gülsen 2012: 125.

⁷⁸⁴ Gülşen (2012: 126) puts the temple 50 m northeast of the Large Baths. He appears, however, to be drawing this from a map by Farrington (1995: fig. 35), which puts the temple further north than more recent sources, including Korkut et al. 2018: fig. 3. Unfortunately, Korkut et al. (2018: fig. 3) do not include a scale on their map, so it can not be used to get a more accurate measurement. By extrapolating from Farrington's and Korkut et al.'s maps together it can be estimated that the Kronos temple was in fact only 15-20 m northwest of the Large Baths.

⁷⁸⁵ Although these baths have not yet been excavated (Korkut et al. 2018: 138), Farrington (1995: 67, 68) dates them to between 70 CE and the early second century because of the use of terracotta spacer pins in the wall heating system and their mortared rubble. These baths use *tubuli* in their wall heating system which Farrington (1995: 68) argues, "places it probably not earlier than, and possibly after, Baths A...This means that Baths B [Large Baths] is very probably after 70 CE".

⁷⁸⁶ Measurement from Farrington 1995: fig. 35.

⁷⁸⁷ Korkut et al. 2018: 138.

⁷⁸⁸ Korkut et al. 2018: fig. 2.

⁷⁸⁹ Des Courtils and Cavalier (2001: 162) think a third century date is more likely.

⁷⁹⁰ Des Courtils 2003: 8, 9; Des Courtils and Cavalier 2001: 160, 162, fig. 6-17. All measurements taken from Des Courtils 2003: fig. 2.

m north of the baths, connecting the Flavian and Upper Agora. The second baths (Flavian in date)⁷⁹¹ are smaller and extramural, sitting at the south foot of the Lycian acropolis, the original public nucleus of the city.⁷⁹² The Xanthos River flows about 100 m to their west.

Discussion:

In total, public baths from twenty-five towns and cities across western Turkey have been surveyed. Within this region, the most popular single space for baths was the agora/forum with twenty-four examples from seventeen different cities. Baths near other sport, leisure, or entertainment buildings, including other baths (twelve from six cities), theatres (ten from eight cities), stadia (six from four cities), and gymnasia or palaestrae (five from four cities) were also common locations for baths. So too were temples and sanctuaries (ten examples from seven cities), as well as other public or civic structures and spaces like *nymphaea* or fountains (eight from seven cities), the *odeum* or *bouleuterion* (four), open spaces comprising parks, gardens, or courtyards (three), arches or gateways (three), latrines (three from two cities), and market spaces (two).

Of the eight cities surveyed that had a harbour, seven of them had baths in the vicinity of the port (and Miletus had two). The baths at Smyrna and Parion, although further away from the harbour than the others, likely still served the port area. Seven baths in six cities had baths near a natural water source (aside from a harbour), and Rhodiapolis had its baths built on terrace supported by cisterns. None of the surveyed baths were near identified aqueducts, *castellum aquae*, or wells.

⁷⁹¹ Farrington 1995.

⁷⁹² Des Courtils and Cavalier 2001: 162, fig. 6-17.

⁷⁹³ Alexandria Troas was the only one without a known bath near the harbour.

Seven baths were situated close to a city gate, and another two were near the edge of the settlement (i.e., alongside a city wall). Four were outside the city boundary, although still close enough to have served the city. Very few baths (compared to the other regions surveyed) had evidence of one or more residential or commercial/industrial structures near by (four and seven respectively), although this low number may be more reflective of the minimal excavation that has been done of these types of urban spaces rather than the reality. Finally, as the cities in Anatolia did not typically have a defined *cardo maximus* or a *decumanus maximus* (and thus by extension a primary intersection), the baths do not show up in this location; however, baths opening up onto one of the main thoroughfares of the city was very common with fifteen examples from ten different cities.

Conclusion:

As in Chapter One, this chapter presents the results of a survey of bath locations in thirty-seven cities and towns of the Roman provinces of Achaea, Macedonia, Epirus Nova, and Crete (modern-day Greece and southern Albania), as well as Asia and Lycia and Pamphylia (modern-day western Turkey). The primary goal of this study was to better understand the preferred urban locations of Roman-style baths and to discern whether the region, settlement history, or status of the city in which the bath was located had any noticeable influence on bath placement, as well as to what extent practical considerations like the need for customers, fuel, and water were reflected in the choice of bath location.

In both regions, the agora (or forum in the case of the colonies of Corinth, Dion, Philippi, and Cremna) proved to be the most popular location for the baths, with fifteen baths from eight cities in Greece and twenty-four examples from seventeen cities in western Turkey. This number reflects over half of the cities surveyed in Greece and southern Albania and over two thirds of the

total cities surveyed in western Turkey. In the cities that had more than one bath, at least one was near the agora/forum, and it was typically for the earliest known baths from the site to be located here, although in the majority of cases, this is still quite late (end of the first and second centuries CE). Exceptions to this rule from Greece include Aptera and Nicopolis, where the Greek agora/Roman forum have not yet been found, and at Gortyn, where the baths were located far east of the Greek agora in an area of new monumental public building close to where the forum is conjectured to be. In western Turkey, exceptions to this general trend include Nysa ad Maeandrum and Magnesia ad Maeandrum, where neither of the baths were close to the agora. Other exceptions are Side, whose agora bath was not added until the fourth century CE (and so was not included in the survey), and Xanthos, where the second or third century Large Baths (located near the agora) were a later addition than the extramural Flavian Small Baths. Of the three cities in Greece for which only one baths is known, two (Butrint and Sikyon), had a bath near the agora/forum, while six (possibly seven)⁷⁹⁴ of the ten single bath cities in western Turkey had a bath near the agora.

The preference for placing Roman-style baths near the agora/forum is also emphasized by the fact that four of these cities in Greece and six in western Turkey had multiple baths near the agora/forum. Other locations where two or more baths are found in close proximity to each other include major thoroughfares (Ephesus and Phaselis), natural water sources (Athens and Nysa ad Maeandrum), man-made water sources (Aptera), the harbour (Miletus), the topographical centre of town (Aptera), the theatre (Pergamum and Phaselis), palaestrae/gymnasia (Ephesus), stadia (Miletus, Nysa ad Maeandrum), temples/sanctuaries (Aptera, Miletus, Pergamum, and Tlos), *nymphaea* (Argos and Pergamum), and latrines (Phaselis). Baths were also regularly placed in

⁷⁹⁴ The position of the agora near the second century Theatre Baths of Parion has not yet been confirmed.

close proximity to other sport, leisure, and entertainment buildings/area, most commonly other baths: Greece (fifteen baths in six cities) and western Turkey (six cities for a total of twelve baths), followed by theatres, palaestra/gymnasium, and stadium. Neither Greece nor Turkey had any examples of baths near an amphitheatre since they were not common in this area. Baths were also repeatedly found near other public/civic structures/areas including temples and sanctuaries, the *macella*/market spaces, the *odea/bouleuteria*, fountains *nymphaea*, latrines, parks/gardens/open courtyards, and arches/gateways.

Very few baths were found at the main intersection of a town (two in Greece and none in Turkey), primarily because such intersections did not typically exist in the towns and cities of these provinces. Baths did, however, regularly face a major thoroughfare of their city (with fifteen baths from ten different cities in western Turkey doing so). Similarly, few baths can be said to have been situated in predominantly residential or commercial/industrial areas (largely since such areas are rarely identified in the archaeological records of these regions). That being said, ten baths in Greece and eleven baths in western Turkey have at least one house or warehouse/taberna nearby.

Seven of the eight cities with harbours surveyed in western Turkey had a bathing complex servicing them, while neither of the two towns surveyed in Greece with harbours have a Roman bath nearby. Both areas, although Turkey especially, also had few baths near man-made water sources (e.g., aqueducts, cisterns, *castellum aquae*, and wells), although natural water sources were more common in western Turkey (with seven examples) than in Greece (four examples). This relative paucity of baths near water sources, despite the necessity of water for bath function is a reflection of how poorly understood water supply systems in urban landscapes are and how the water they brought in was distributed to the baths (and the rest of the city). This

makes it difficult to determine how much the need for water influenced bath placement, especially when they were relying on natural water sources like rivers and streams. This leads naturally to the discussion of how much practical considerations (e.g., visibility and for customers, the need for fuel and water, connections to specific buildings, the availability of space, and pre-existing bathhouses) are reflected in baths placement. As just mentioned, how many of the baths surveyed were connected to their water sources is poorly understood, and thus it is not possible to comment on whether or how these sources influenced bath placement. More easily visible in bath placement are the considerations related to drawing customers (e.g., the forum/agora, gates, harbour, main intersections, and thoroughfares), as well as connections to specific buildings (entertainment, civic, and public architecture). Yet many of the areas, namely the forum and/or agora, were typically very built up, and it was likely difficult to get enough space to insert a large public bathing facility. This is perhaps why we see that Roman baths were typically not introduced to the agora/forum right away. As will be demonstrated in Chapter 3 for Greece, large Roman-style baths were often introduced into the urban fabric of the city or town later in its urban development (commonly in the late first or the second century CE) and often as part of a larger redevelopment of the town, when both space and funding were available. The influence of pre-existing bathhouses on later Roman baths placement in Roman Greece and Britain will be discussed in chapters three and four of this dissertation.

It is difficult to come to any definite conclusions about the possible effect of settlement history on the placement of baths when there are only two *ex novo* cities to draw from, both of which come from Greece (Nicopolis and Corinth). It does not appear, however, as though the settlement history of a city had any significant influence on the selection of the location for the city's baths. The baths in both Nicopolis and Corinth (where officials presumably had no need to

commandeer space for them) are located in the same types of high-traffic areas already seen in cities which developed out of Greek *poleis* where officials had to work within a pre-existing urban framework. As previously discussed, the most preferred location for baths in established Greek *poleis* (both those in the region of modern Greece and that of western Turkey) was the agora/forum. Corinth similarly had baths near the forum as well as at other locations shared by cities which developed from a Greek *polis*, including the theatre, and a natural source of water. At Nicopolis, which is the only city in this survey to be erected completely *ex novo*, it cannot be said with certainty that a Roman bath stood in the vicinity of the forum, although it is a possibility if Zachos' hypothetical reconstruction of the city and street plan is correct. Nevertheless, it is clear that the blend of Roman and Greek urbanism at Nicopolis is a reflection of both the city's imperial origins and the impact of the Greeks who lived there and participated it the city's civic life. A similar situation is experienced in the cities that developed out of pre-existing Greek urban landscapes, where "the existing Greek city culture shaped the cultural negotiations between Greeks and Romans."

The status of a settlement similarly does not appear to have had much of an effect on the placement of baths, although the situation is complicated. None of the locations in which baths are found are particular to one status of town. As already discussed above and in Chapter One, the city's main public open space (be it a forum or agora) is the most popular place near which to

⁷⁹⁵ However, with only three cities meeting my criteria, it is difficult to make any concrete conclusions.

⁷⁹⁶ The Great Bath on the Lechaion Road and Baths North of the Peribolos of Apollo are both north of the forum. The Peribolos Baths are also near a natural spring, and there is another large bathing facility partially excavated in the area north of the theatre (Biers 2003: 305-308).

⁷⁹⁷ Nicopolis has at least two public baths, one which appears to be in a residential area of the city and the other south of the *odeum* along the *cardo maximus*, (again the main N-S street) that led in from the north gate.

⁷⁹⁸ Zarmakoupi 2018: 293.

⁷⁹⁹ In western Turkey, the baths of *colonia* appear in fewer locations than those from the seats of the governor and the towns with no formal status; however, this is likely because *colonia* were not that common in this region of the empire and therefore fewer of the baths surveyed come from this status of town.

situate a Roman bath, and this location is found in cities and towns of all statuses (the seat of the governor, colonia, municipia, or a town with no status). It must be noted, however, that in Greece, the colonies of Corinth and Butrint did have the earliest extant examples of Roman baths located near the main public area (be that agora or forum), and it is conceivable that when other towns in Greece eventually introduced a Roman forum to the city (either completely replacing the agora or introducing Roman architectural types into the area of the agora, as at Athens, Argos, and Sikyon), typically sometime in the second or early third century CE, they looked to the colonies for their bath placement. It is also possible, however, that this choice of bath site was the driven by Roman settlers or their descendants (who were often part of the propertied classes that held magisterial positions) 800 or the Greek inhabitants who were familiar with Roman architectural forms and city planning from other sources. Most likely, the choice to put a bath near the forum was driven by practical considerations (customers, fuel, and water, etc.), which will be discussed in more depth below. This pattern is not repeated in the cities of Asia and Lycia and Pamphylia where the earliest known baths near the agora/forum come not from the seats of the governor or coloniae, but from towns with no formal recognized status (or administrative outpost), including Priene (Upper Gymnasium Baths, Augustan or first century CE), Sagalassos (the "Old Baths," 10-30 CE), and Miletus (Baths of Vergilius Capito, Claudian period).

The relatively early introduction of a Roman forum, specifically with a nearby public bathhouse as seen at Corinth and Butrint, was not generally repeated in the other cities, ⁸⁰¹ even

⁸⁰⁰ Adam-Veleni 2011: 554. For example, when Dion and Philippi were re-founded as Roman colonies, they both received Roman veterans and colonists from Italy, and Thessaloniki, as the seat of the Roman governor in Macedonia, also had strong ties to Rome.

⁸⁰¹ This may be in part because these two colonies were built at least partially *ex novo* and had major constitutional changes at the time of their re-founding as *coloniae*.

in the *coloniae* of Dion and Philippi in Macedonia and at Cremna in Lycia and Pamphylia. ⁸⁰²
This is perhaps because in these two provinces specifically, the colonies do not seem to have had the same influence as they did in the western provinces. Jones argues that in Greece and the East, it is very unlikely that 'any programme of Romanization' was responsible for these *coloniae*, and that instead, most were founded for the purpose of settling veterans. ⁸⁰³ Moreover, while these colonies had soon become well-populated centres for Rome's political administration of the province they do not appear to have had much tangible influence on the rest of the Greek *poleis*. ⁸⁰⁴ Indeed, it appears that eventually even the colonies gradually adapted to their Greek environment, as is suggested by their eventual adoption of Greek in their inscriptions and coinage. ⁸⁰⁵

It is notable that the patterns seen and discussed for bath location in the Roman provinces above are largely reflective of the ones seen in the provinces of the Roman West discussed in Chapter One. The same high traffic locations (namely the forum or agora, gates, and other public civic and entertainment focused structures) were the most popular spots for baths. It seems therefore that region, settlement history, and status had little to no affect on baths placement. Instead, practical considerations (customers, connections to specific buildings, space, etc.) were the primary driving factors influencing bath location, although more works needs to be done to understand more fully the extent to which the water supply dictated bath placement, especially when relying on natural water sources when aqueducts were not available.

⁸⁰² Although the earliest baths from Dion were built soon after the city became a colony (under Augustus) and were nearby the forum, they actually pre-date forum (first built in the Claudian period) and may have been built when this area was still residential.

⁸⁰³ As a result of the large number of their veterans, Caesar and Augustus were especially active in the founding of *coloniae* (Jones 1963: 3).

⁸⁰⁴ Finlay 1857: 66; Jones 1963: 4.

⁸⁰⁵ Jones 1963: 4. As previously mentioned, this is taken as evidence that the Roman colonies "went Greek" (Alcock 2005: 301), however Susan Alcock has stressed that this does not necessarily equate with Greece having taken "her savage victor captive" (Horace *Epistulae* 2.1.156 from Alcock 1993: 301; Alcock 2005: 301).

Having explored the placement of Roman-style baths in settlements and the factors influencing these decisions, it is worth now considering how the observations of this study compare with those made by Monika Trümper for Greek baths in her 2013 book chapter "Urban Context of Greek Public Baths." In this study, Trümper presented the results of a survey of the intra- and extramural locations of seventy-five Greek public baths from across the Greek world. She found that, during the Classical and Hellenistic periods, Greek public baths built within a city or town were most frequently located in high-traffic areas, including near the harbour (one), city gates (four), residential areas or the edge of the settlement (seventeen), intramural temples or sanctuaries (six), and near the agora (eight) or topographical centre of town (three).

The earliest Greek-style baths of Athens (those dating between the fifth and third centuries BCE) were extramural, as were the 'Serangeion Baths' in Piraeus and those in Hephaistia on Lemnos. Not all Classical period baths, however, were located outside a city's walls. Thus, the Classical baths at Ambrakia, Colophon, Corinth, and Maseille were all inside the city walls, the first three of which were near the city centre and possibly the agora. ⁸⁰⁷ In the Hellenistic period the number of known baths and the range of bath locations expands, from extramural (only one example at Thessaloniki) and the agora (including those at Amathous, Athens), to the harbour (e.g., Delos, Eretria), residential-commercial sectors (e.g., Delos, Athens, Pella), and intraurban/suburban sanctuaries (e.g., the Sanctuary of Asklepios at Messenae). Baths in every period in Greece were found in or close to extra-urban sanctuaries (including the

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⁸⁰⁶ Trümper 2013b.

⁸⁰⁷ Ambrakia's baths were located close to the city centre (and possibly agora), those at Colophon were close to the agora, the 'Centaur Baths' in Corinth were near a large open space that would later become the city's forum and may have originally been the agora. An inscription (Chankowski 2008: 294, 362, 421 and Hellmann 1992: 63-64) mentions an intramural bath (the *balaneion* of Aristonos) on Delos (Trümper 2013b: 41).

Sanctuary of Demeter at Eleusis, the Sanctuary of Asklepios at Epidaurus, the Sanctuary of Zeus Mount Lykaion, and the Sanctuary of Zeus Olympia).⁸⁰⁸

It is clear from the survey conducted in this chapter and the previous one that high traffic areas continue to be favoured for Roman public baths into the Imperial period. In fact, many of the preferred locations recognized by Trümper for Greek baths continued to be favoured during the Imperial period for Roman-style baths, including gates and the edge of the settlement, the agora, residential areas, the harbour, and temples. That the Roman baths share many of the same locations as the Greek public baths is not surprising. Presumably the public officials ⁸⁰⁹ were still faced with many of the same practical considerations as their private Greek predecessors when choosing a location for the baths. These criteria likely included accessibility to fuel and water, connections to specific buildings, visibility and ease of access, along with the desire for paying customers. ⁸¹⁰ Although perhaps not as motivated by profit as private Greek bath owners, Roman baths were not always provided with endowments from emperors or other benefactors to cover maintenance and running costs, and so attracting bathers must still have been a concern for many.

Of particular interest is the presence of Roman baths on or near a city's primary open public space, the agora or forum. The Southeast Agora baths at Athens and the Agora Baths at Sikyon, in the north Peloponnese were placed directly on a Greek agora. In Eretria and Gortyn, where the Greek agora continued to exist into the Roman period, Roman public baths have not been identified in this area. Meanwhile, eight of total twenty-one baths considered were built on

⁸⁰⁸ Trümper 2013b: 46, footnotes: 68, 69, 72, 79.

⁸⁰⁹ The Romans allowed much of the Greek civil government (the *boule*, magisterial offices, laws, etc.), and many of the financial institutions, already in place to remain (Finlay 1857: 45) and so it was still often the local community who were responsible for the placement of the baths.

⁸¹⁰ Trümper 2013b: 35.

or close to Roman fora. In her survey of seventy-five Greek *balaneia*, Trümper found only eight baths located in the vicinity of the agora. To this number I can add two more: the small tholos baths near the agora of Eretria and the baths southwest of the agora of Thessaloniki. ⁸¹¹ This relatively low number of Greek baths constructed near the agora may be related to a perceived moral aversion to bathing, ⁸¹² or it may have been that such prime socio-cultural an commercial real-estate was difficult to obtain by the private owners of the Greek *balaneia*. ⁸¹³ The civic official(s) responsible for erecting the city's Roman public baths presumably would have had an easier time obtaining such space for the baths, especially if the baths were introduced during the refurbishment of the agora area or the foundation of a new forum which would have provided them the space and opportunity to erect such large buildings on premium land.

⁸¹¹ It should be noted that the baths southwest of the agora at Thessaloniki pre-dated the agora and were erected when the area was residential (Adam-Veleni 2013: 207; Trümper 2013a: 6).

⁸¹² Trümper 2013b: 46.

⁸¹³ Trümper 2013b: 37.

Chapter 3 The Integration of Roman Baths in Greece

The previous two chapters have made clear that those responsible for placing Roman public baths in urban spaces preferred high-traffic areas like the forum and gates, but how were these buildings physically incorporated into these locations? How did the town officials responsible for introducing Roman public baths into the pre-existing urban landscapes or "furnished cities" integrate them into their changing cities and towns? How much were pre-Roman urban settlements changed to accommodate Roman public baths? That is, did they replan existing urban spaces or work within them? Did pre-existing bathhouses (where such existed) continue to be used into the Roman period? Were they ever renovated to become Roman in style or did those responsible for their construction prefer to start afresh? Greece represents the ideal case study to answer these questions because of its long history of Greek public baths and bathing culture and urban settlement record. The research questions will be answered through an examination of what lay below the Roman public baths and the timeline of their integration in twelve cities and towns in Roman Greece.

This chapter will have two sections. The first discusses the types of pre-Roman urban landscapes and their organization, as well as the interaction of Roman and Greek forms of urbanism. The second section will explore the integration of Roman baths into the pre-existing urban landscapes of Roman Greece. This analysis will focus on the construction history of Roman civilian baths from select Greek cities and towns. Specifically, it considers how the introduction of these bathing facilities fit into the broader urban development of the sites, as well

as the types of structures that these baths were built over and the relationship of these new Roman baths to any pre-existing bath-buildings.

Section I: The Pre-Roman Urban and Bathing Landscape in Greece

By the time that the Romans had gained control of the territory of Greece, this region was already heavily urbanized, although the degree and permanence of this urbanism was not constant. The *poleis* of the Greek world were varied in terms of their organization and urban layout. While older cities like Athens and Corinth (before the Roman invasion) did not conform to any of type of formal planning and instead experienced a more piecemeal development, ⁸¹⁴ many newer cities (including Greek colonies) adopted orthogonal layouts. ⁸¹⁵ Orthogonal planning in the Greek world resulted in the urban space being split up by few linear streets which intersected (in theory) at right angles with more numerous narrow streets to create long, thin, rectangular *insulae*. ⁸¹⁶ This type of urban planning is first seen in the Greek colonies of Southern Italy (*Magna Graecia*), and Sicily, as these newly founded settlements allowed for the development of regular town planning in the Greek world. ⁸¹⁷ From these beginnings, orthogonal

⁸¹⁴ Public buildings were added as needed and these cities were rarely re-planned. This was due, at least in part, to the pre-existing landownership claims of the cities' inhabitants (Owens 1991: 26). This is certainly the case at Athens, where the Solonic oath prohibited the redistribution of Athenian lands or houses (see Demosthenes xxiv). After the destruction of the city by Mardonius in 480 BCE, this oath, along with the need to quickly reoccupy the city meant that it continued its piecemeal development rather than switching to more formal planning (Owens 1991: 27). It is important to note that the absence of formal planning does not indicate a lack of urbanization. A grid plan is not the only marker of urbanization (Vink 1997: 112-113; see the first eight articles in Andersen (ed.) 1997 for a discussion of early urbanization in the Greek world).

⁸¹⁵ Most basically orthogonal planning can be defined as "gridded schemes based on the intersection of streets at right angles" (Ward-Perkins 1974: 8).

⁸¹⁶ These blocks could be up to eight times as long as they were wide (Ward-Perkins 1974: 22). Miletus, with its use of a three wider arterial avenues is an exception to this (Ward-Perkins 1974: 14).

⁸¹⁷ Ward-Perkins 1974: 11; 25; Stambaugh 1988: 243; Owens 1991: 34. The Greeks themselves credit Hippodamus of Miletus (fifth century BCE) for the creation of orthogonal town planning, however enough earlier examples of such town planning have been found to discount this (Ward-Perkins 1974: 11).

planning continued to develop and spread across the Greek world. On the Greek mainland we see the best evidence of this type of orthogonal planning at Sikyon and Thessaloniki to the north.⁸¹⁸

"The most surprising feature of Roman rule in the Greek East is that despite its long duration it had so little effect on the civilization of the area."819 This statement by A.H.M Jones in his 1963 article "The Greeks under the Roman Empire," reflects an approach to Roman Greece, which acknowledges no substantial changes to the province under the Romans (especially when viewed from the western empire). Connected to this approach is the idea of "reverse cultural imperialism" and the paradox of an enlightened Greece falling to the lesser Romans. 820 Such views, along with later calls to re-evaluate them (take for example Susan Alcock's "revisionist approach" 821 in her 1993 book Graecia Capta), all speak to the complexities of the Roman influence in Greece. When Roman attention first shifted to Greece in the beginning in the second century BCE (and continuing after its the annexation of the Roman province Macedonia after the destruction of Corinth in 146 BCE), the Romans were met with a highly urbanized society, from which they had already been drawing influence for centuries, 822 including in the planning of their towns and cities. 823 This was a vastly different situation to what the Romans were met with in a number of their other provinces (e.g., Spain and Britain). It becomes evident when viewing Greece as a part of the larger empire that the ways in which Roman urban influence and policy was introduced (and how it interacted with the local culture and socio-political organization) could vary greatly across the empire.

Since they found the pre-existing political structure in Greece "acceptable to their

⁸¹⁸ For Sikyon, see Lolos and Gourley 2011 and Lolos 2011. For Thessaloniki, see Vickers 1972.

⁸¹⁹ Jones 1963: 3.

⁸²⁰ Alcock 1993: 1-3.

⁸²¹ Alcock 1993: 3.

⁸²² Horace: "Graecia capta derum victorem cepit." (Jones 1963: 3).

⁸²³ Ward-Perkins 1974: 8.

particular and limited needs in the province,"⁸²⁴ the Romans were not faced with the task of completely restructuring the mainland⁸²⁵ through widespread forced urbanization via the founding of a network of cities and towns. This pre-existing Greek urbanism has often led scholars like A.H.M. Jones to underestimate the Roman impact in Greece, due in part to an elitecentric approach at the expense of the experiences of the Greek provincials.⁸²⁶

How did Roman rule shape the governance and planning of civic spaces? It is true that the Romans adopted more of a *laissez faire* approach when it came to governing the Greek *poleis* (especially in comparison to their treatment of other provinces). Within these pre-existing cities, the Greek people were allowed to keep their property and private rights (with the exception of Corinth), ⁸²⁷ and much of the Greek civil government (the *boule*, magisterial offices, laws, etc.) and financial institutions remained in place. ⁸²⁸ The continuation of these Greek forms of governance had an effect on the use of the Greek language; it remained the primary administrative language of the province. ⁸²⁹

Greece did not, however, experience an "unchanged political landscape."⁸³⁰ Even before the region was annexed in 146 or made the official senatorial province of Achaia in 27 BCE, direct Roman involvement is evident in Greece, especially within the existing cities. This brought about some political and administrative changes, including the introduction of property requirements to hold office and for council membership, following the Second Macedonian

⁸²⁴ Alcock 1993: 170.

⁸²⁵ Alcock 1993: 18.

⁸²⁶ Alcock 2005: 2, 301.

⁸²⁷ The city was seized and made *ager publicus* after its destruction by Mummius in 146 BCE (Finlay 1857: 45).

⁸²⁸ Finlay 1857: 45. There are of course exceptions to this. The colony at Butrint, for example, was give a new constitution and magistracies (a council of decurions, *duoviri*, etc.), soon after the settling of the colonists in the city in 44 BCE (Hodges and Hansen 2007: 6).

⁸²⁹ Finlay 1857: 45. This is excepting the Latin colonies of Corinth and Patras, where Latin was used as the official language.

⁸³⁰ Alcock 1993: 131.

War.⁸³¹ Thus, while the *boule* still passed decrees and elected members into the enduring Greek magistracies, actual control passed into the hands of the propertied class, effectively doing away with the democracy.⁸³² It was these propertied elites who, in the absence of the army (Greece was a *provincia inermis*),⁸³³ were largely responsible for the internal changes within the provincial landscape (including the architectural development of the cities and towns),⁸³⁴ especially after the reign of Augustus when the province was largely left to itself.⁸³⁵

On a larger scale, direct Roman involvement was experienced through city foundations, forced population migrations (either the settlement of foreign veterans⁸³⁶ or the forced movement of one town/city population to another), as well as territory and boundary changes (including the transference of land from one city to another, often as a means of reward or punishment). ⁸³⁷ Thus, as Susan Alcock explains, "[f]or all that Roman imperialism in Greece may not have been overtly interventionist, it was nonetheless highly intrusive; the provincial landscape shows the marks of Roman conquest and control." ⁸³⁸ One such 'mark' is the decline in the number of the Greek cities during the Roman period (a trend also seen during the later Hellenistic era). Alcock discusses this phenomenon and the reasons behind it in depth, but most simply, it resulted from a combination of direct Roman intervention (i.e., Rome's preference of fewer and larger administrative units), along with internal civic reorganization (e.g., whether a city could meet the new needs of the Roman system of empire, including taxation). ⁸³⁹

⁸³¹ Alcock 1993: 9.

⁸³² Alcock 1993: 9; Jones 1963: 6-7.

⁸³³ Alcock 2005: 301; 1993: 17.

⁸³⁴ Boatwright 2018: 9; Alcock 1993: 18, 19.

⁸³⁵ Alcock 1993: 19, 145. Susan Alcock further argues that Rome's eventual (largely) "hands-off" treatment of Greece was because of Greece' comparative insignificance within the empire (Alcock 1993: 144).

⁸³⁶ Take for example the settlement of 20,000 Cilician pirates at Dyme by Pompey the Great (Alcock 1993: 132).

⁸³⁷ Alcock 1993: 132.

⁸³⁸ Alcock 1993: 171.

⁸³⁹ Alcock 1993: Chapters 2 and 3 (for conclusions see pg. 170).

The cities that did continue into the Roman period certainly had a changed political landscape, as discussed above, but only in rare cases does the Roman state completely destroy a city and start fresh (e.g., Corinth). In most cases, Roman architecture was integrated into the pre-existing landscape in a piecemeal fashion, driven by local intra- and inter-civic competition and euergetism and often as part of large building programs, sometimes after a destruction or a change in city size/population, and sometimes with imperial aid. This was by no means a unilateral 'top-down' process or transformation of the urban landscape but was rather a process of negotiation. He community members (likely the local council or magistrates) responsible for integrating the new baths into already urbanized spaces were faced with the decision of what pre-existing local architecture (and therefore cultural connections) to keep and what to do away with. As will be seen below, Athens for example, tended to preserve its pre-Roman monuments and preferred to look to new open spaces for new public building rather than replacing its Greek monuments. He

Section II: The interaction of Roman and Greek urbanism and the integration of Roman baths

With the spread of Roman architectural influence to Greece, communities in this region wishing to construct new public baths were now faced with a choice of building a bathing facility either in the traditional Greek style or adopting the new Roman style. By the first century BCE, these communities were choosing to integrate the Roman-style baths into their urban landscapes. This chapter asks: what were the circumstances surrounding the initial introduction of a Roman bathing facility into a Greek town? Were they an individual erection or part of a larger town re-

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840 Thomas 2013: 155.

⁸⁴¹ Raja 2012: 131. For a fuller discussion of Roman urbanism and the adoption, adaption, and integration of Roman urban forms in the provinces see the dissertation introduction.

organization and/or public building project? What pre-existing urban structures were removed to make way for these large stone structures? What was done with the Greek-style baths that already serviced these towns? What considerations may have affected their choice? Finally, how does the placement of these baths compared to their Greek predecessors?⁸⁴² I answer these questions through a survey of twelve Greco-Roman towns for which the location and construction history of the Roman baths are known. The survey will also include a detailed discussion of the pre-Roman settlement history of the cities to help contextualize the integration of Roman baths into the pre-existing urban landscapes.

The cities and towns included in the survey were selected on the basis of available, published scholarship about the urban development of the town overall, details of the bath's construction history, and information about what lay below the Roman baths. Ultimately, the sites included are those for which something can be said about how and when Roman-style baths were integrated into their urban landscape. These cities had a variety of settlement histories, patterns of urban development, status, and levels of direct interaction with Rome. They include Thessaloniki, Athens, Gortyn, Dion, Philippi, Butrint, Corinth, Argos, Eretria, Sikyon, and Aptera.

The chapter begins with a brief review of the pre-existing baths and bathing culture that existed in Greece, before turning to the city case studies. As mentioned above, each case study will include a brief outline of its settlement history and urban development in the Roman period,

⁸⁴² A great deal of work has been done on the origins of Roman baths and their connection to earlier Greek bathing facilities. For discussions on the influence of Greek baths and bathing on the development of Roman baths see, Tsiolis 2013: 89-112 and Yegül 2013: 73-88. See Fagan 2001 for a comprehensive summary and evaluation of six theories for the origins and early development of Roman public baths and Ginouvès 1959, esp. 166 and 1962, esp. 208-209 for the argument that the Romans simply adopted and then elaborated the underfloor and wall heating first found in Greek baths.

followed by a description of the introduction of Roman baths to the urban space as well as a discussion of how the construction of these facilities fits into larger trends of urbanization seen in the town. The towns are organized by status, then by province, and then alphabetically (in keeping with the organization used for Greece in Chapter One).

Before discussing the urban transition from Greek to Roman-style-baths, it is first necessary to define Greek public baths (*balaneia*) and outline what distinguishes them from their Roman counterparts, which eventually replaced them. Issues of chronology, geography, and shared bathing forms can complicate the differentiation of these two bath types. ⁸⁴³ In essence, however, Greek public baths can be identified by their simple bathing facilities including hipbathtubs, while Greek bathing facilities in gymnasia are characterized by their cold-water basins and sweat baths. ⁸⁴⁴ In contrast, Roman-style baths make use of more complex forms of bathing and typically include a clear sequence of differentially heated rooms, heated communal pools (*solia* or *alvei*), as well as wall and hypocaust heating systems (*suspensura*). ⁸⁴⁵

The first public baths appear to have developed in Greece around the fifth century BCE and continued to be constructed until the second century CE, by which time they had spread across the Mediterranean from France to Egypt. 846 There were found in a variety of extra- and intramural locations including at sanctuaries, the city centre/agora, gates, harbours, and residential-commercial sectors.

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⁸⁴³ Trümper 2013a: 1. The second century BCE baths at Fregellae (see Tsiolis 2013: 89-112 and Yegül 2013: 73-88) well illustrate some of these difficulties. See also DeLaine 1989 and Fagan 2001 for discussions on the transition of Greek to Roman-style baths.

⁸⁴⁴ Trümper 2013a: 1; Ginouvès 1962.

⁸⁴⁵ Trümper 2013a: 1; Fagan 2001: 403-404; Nielsen 1993b. Roman baths also often had secondary features including *palaestrae* (exercise grounds), *natationes* or *piscinae* (open-air pools), *sudatoria* or *laconica* (sweat baths), etc., (Fagan 2001: 404). Some Greek baths did make use of underfloor heating. For an up-to-date discussion of research on Greek Baths and Bathing culture see the edited volume by S.K. Lucore and M. Trümper (2013).

Seats of the governor

Thessaloniki, Macedonia

The remains of Cassander's Thessaloniki, which he founded in 316/5 BCE, are relatively rare (but the extant remains include extramural sanctuaries, a public building, a stoa, and parts of the south and east walls) making the extent and planning of the early city unclear. Hellenistic finds are similarly limited, as these were destroyed by later Roman and Byzantine building. It is clear, however, that Thessaloniki developed quickly during the third and second centuries BCE, during which time it expanded north towards the plain. Hellenistic period gradually transformed into a residential suburb, and then eventually into the city's public centre. At the southeast corner of the presumed agora, excavation uncovered a Hellenistic balaneion, which is discussed below.

Following the Roman victory at the Battle of Pynda (in 148 BCE), Thessaloniki became the capital of the new province of Macedonia and in 42 BCE was granted free status (becoming a *civitas libera*). During this transitional period, the city grew in population density with settlers from Rome arriving in the city. This influx of Romans (along with the presence of the governor), however, does not seem to have caused any immediate or significant changes to the cultural or urban landscape; the city retained its institutions and organization. While the city continued to

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⁸⁴⁷ Adam-Veleni 2011: 548

⁸⁴⁸ Adam-Veleni 2011: 549, Vitti 1996: 51, 58.

⁸⁴⁹ Trümper 2013a: 6; Vitti 1996: 51. Finds, along with an inscription (*IG* X.2.1, 5) dating to 60 BCE mentioning the market indicate that the agora was located in the vicinity of Olympus Street, possible under the area of the later Roman forum (Vitti 1996: 35; Vickers 1972: 163).

⁸⁵⁰ It is possible that this bathing facility predates the agora. The bath dates to the second century BCE (Adam-Veleni 2011: 550), and the earliest mention we have for the city's agora dates to 60 BCE (see footnote 849, above). ⁸⁵¹ Thessaloniki was granted this honour following the victory of the triumvirate at the battle of Philippi as a reward for its loyalty to Rome (Adam-Veleni 2011: 548, 549, 553, 554).

⁸⁵² Adam-Veleni 2011: 554.

expand north (perhaps to account for the population increase), there is not much extant evidence for the overall urban landscape of the city in the early Roman period, especially for the integration of Roman architectural forms into the urban fabric of the existing city. ⁸⁵³ It is not until the Antonine and Severan periods that there is clear evidence of large-scale construction activity of Roman building types. ⁸⁵⁴

It is to this period that major changes to the public centre belong; a peristyle Roman forum (complete with a mint and *odeum*) replaced an earlier first century CE version (with possible *bouleuterion*).⁸⁵⁵ It is also during this period of intense building (late second to early third century CE) that the three largest known Roman bath complexes from Thessaloniki were erected.

The only identified Hellenistic bathhouse (c. 200 BCE) of Thessaloniki was located in an area that had originated as an industrial suburb of the Hellenistic city, but which had become residential by the time the baths were built. ⁸⁵⁶ By the first century CE, the area was covered by the city's agora, with the baths at its southeastern corner. ⁸⁵⁷ The baths survived the city's transition to a Roman *civitas libera* and the seat of the governor, remaining in use until they were destroyed by a fire in the Vespasianic period after which the entire area was levelled. ⁸⁵⁸ They were not replaced by Roman-style baths on the same site, but were eventually covered over by forum buildings when this area was remodeled in the Antonine to Severan period. ⁸⁵⁹ Those responsible for the placement of the new Roman baths continued to favour the public centre of

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⁸⁵³ Vitti 1996: 58.

⁸⁵⁴ Vitti 1996: 61-62.

⁸⁵⁵ Evangelidis 2014: 340; Adam-Veleni 2011: 556.

⁸⁵⁶ Adam-Veleni 2013: 206-207; Trümper 2013a: 6.

⁸⁵⁷ Adam-Veleni 2011: 551.

⁸⁵⁸ Adam-Veleni 2013: 209; Fournet et al. 2013: 301.

⁸⁵⁹ Adam-Veleni 2013: 202-203.

city, however, and built at least three monumental baths here. Excavations of the baths north of the forum (the so-called "Baths of Saint Demetrios") have revealed Hellenistic building remains underneath. These remains, combined with the discovery of three inscriptions (one referring to a *gymnasiarch* and two to *ephebes*) found in the vicinity of the baths, have suggested to some that the baths stood on the site of an earlier Hellenistic gymnasium. Reform Less is known about the construction and integration of the Baths of Achiropoirtos and the Baths of Hagia Sophia; however, both appear to have been in residential sectors of the city and may have replaced earlier houses like the early Roman forum. The naturally occurring springs in the area may have played a role in the relative proximity of such large contemporary baths.

Thus, at Thessaloniki we do not have evidence of Roman-style baths being added to the city until the Antonine/Severan period as part of a larger reconfiguring of the public centre of the town which included the conversion of the Greek agora into a Roman forum. The Hellenistic baths that bordered the agora were not converted into Roman baths, as they were destroyed by fire in the Vespasianic period. It is likely that there were other Greek (or possible Roman) baths in use between the destruction of these Hellenistic baths near the agora and the erection of the similarly located three large Roman-style baths in the public centre of the town erected in the Antonine/Severan period, ⁸⁶² although excavation has not, as yet, found evidence for them.

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⁸⁶⁰ Oulkeroglou 2016: 131; Vitti 1996: 54; Vickers 1972: 165. Polyxeni Adam-Veleni has suggested that a palaestra or gymnasium would have been connected to or were nearby the Hellenistic Greek-style bathhouse further south near the agora (Adam-Veleni 2011: 551). It is unclear, however, if this was a separate gymnasium to the one postulated to lie below the later Roman baths. The inscription mentioning the *gymnasiarch* (*IG* X, 2, 1 135) dates to the end of the second to beginning of the first century BCE (Vitti 1996: 54 and Vickers 1972: 165 both suggest a date of 95-96 BCE).

⁸⁶¹ Adam-Veleni 2013: 209.

⁸⁶² As previously mentioned, some scholars believe that there was a gymnasium (and presumably bathing facilities) below the so-called "Baths of Saint Demetrios" (see footnote 860, above).

Athens, Achaea

Athens, the most intensively studied Greek polis, has been subject to a great deal of discussion among scholars concerning its 'specialness' and how much its distinctiveness influenced Athens' responses to Roman hegemony in comparison to other Greco-Roman cities. 863 There is no need to repeat this debate; I will be only focusing on the city's urban development with respect to how the city's population worked to integrate its numerous Roman baths into the city. Athens did not have a regular (orthogonal or otherwise) city plan because of its extensive and prolonged settlement history and extreme topography. By the time it came under Roman rule in 146 BCE with Lucius Mummius' subjugation of the Achaean League, Athens was extensively furnished with stone and marble public buildings and an agora area dedicated to civic life. Unfortunately, the scattered nature of the archeological evidence and the inconsistent publication of Roman-period buildings in the city has hindered our full understanding of the urban landscape in the period between the late Republic and the mid-third century CE, 864 and little can be identified in the archaeological records of Athens about the shift to Roman control of the city. 865 Much more is known about Roman influence in the city after it was sacked in 86 BCE; however, most of our evidence from Roman Athens comes from the second century CE, which saw a period of increased building activity heavily influenced by Roman building forms. 866 It is to the Hadrianic period that many of the creation of new public spaces (e.g., the Roman agora, the eastern expansion of the city) and monumental constructions (e.g., the Library of Hadrian, the Panhellenic Complex, the Olympieion, and numerous Roman-

⁸⁶³ Raja 2012: 91; Alcock 1997: 4.

⁸⁶⁴ Raja 2012: 91, 93.

⁸⁶⁵ Raja 2012: 93, footnote 370 for bibliography.

⁸⁶⁶ This increase is likely because of the interest Hadrian took in the city's cultural and educational status (Raja 2012: 95).

style baths) belong.⁸⁶⁷ The building (and completion) of monumental public architecture continued in the Antonine period; however, by the Severan period, building had slowed, perhaps mirroring a general decline in economic growth.⁸⁶⁸

Although the literary, epigraphic, and archaeological evidence suggests that there were at least five (or possibly six) public Greek baths (or *balaneia*) at Athens, only four have been located and at least partially excavated. The earlier (fifth century BCE) Dipylon Baths were located outside the city walls in the Kerameikos area northwest of the Dipylon Gate. These baths went out of use and were overbuilt by the mid fourth century BCE. The baths outside the southwestern Piraeus Gate, are less securely dated than the Dipylon Baths; however, the similarity of their plan and decoration to those by the Dipylon Gate suggests that the erection of the two bathing facilities was roughly contemporaneous. ⁸⁶⁹ It is not known exactly when the Piraeus Gate baths went out of use; however, it is likely that it continued to be used into the Hellenistic period. ⁸⁷⁰ The third *balaneion* to have been located is the one outside the northeastern Diochares Gate, which is variously dated between the mid-fourth and mid-third centuries BCE. Once again, the date of abandonment is unknown. ⁸⁷¹

The fourth (and latest) identified Greek bathing facility from Athens (and the only one known to stand inside the city walls before the Roman period) is the second century BCE Southwest Baths, which stood southwest of the Greek agora. This structure, like much of Athens,

⁸⁶⁷ Interestingly, much of the building from this period onwards was not near the traditional public space of Athens (i.e., the Athenian Agora) which Raja suggests is because of a need for additional public spaces in the city, but also a result of status of these structures as private and imperial benefactions (a demonstration of the status of the donors). Any building which did take place near the agora during the Roman period was largely dictated to a large extent by the already existing Greek layout and alignment of the area (Raja 2012: 131).

⁸⁶⁸ Raja 2012: 95.

⁸⁶⁹ Trümper 2013b: 37.

⁸⁷⁰ Trümper 2013b: 37-8.

⁸⁷¹ Trümper 2013b: 38.

was damaged by Sulla's army in 86 BCE.⁸⁷² Instead of being abandoned, however, the Southwest Baths were gradually transformed and remodeled with a Roman-style hypocaust heating system.⁸⁷³ This hybrid bath was then destroyed and rebuilt around the middle of the first century CE in the fully Roman-style. They continued to be used well into the sixth century CE with numerous instances of destruction, rebuilding, and modernization throughout their life.⁸⁷⁴

Although not a *balaneion*, the 'Lyceum' Bath-Gymnasium has an interesting history. The complex got its start as a gymnasium with bathing facilities. This phase lasted until the last quarter of the first century BCE when they were destroyed by Sulla. The baths were rebuilt, and at this time two rooms with a hypocaust system were added, replacing the earlier classical baths. An apsidal pool was also inserted into the southern courtyard, perhaps to act as a *frigidarium* pool. The baths, however, were never fully converted into the Roman-style. By the middle of the third century CE, the heating system had gone out of use, and the structure was used only for athletics until its destruction in the later fourth century. The gradual abandonment of the gymnasium bathing facilities in the third century may have resulted from the construction of several Roman-style baths in Athens, which offered graduated heating (a feature the Lyceum hypocaust rooms did not) and which may have rendered these older-style baths less appealing. 875

A total of twenty-four Roman-style baths were identified by Travlos in his *Pictorial Dictionary of Ancient Athens*, published in 1971. Since then, another four have been identified. Unfortunately, very little information is known about most of these facilities (e.g., whether they were public or private, when they were built, what lay beneath them, etc.), as they have not been fully published.

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⁸⁷² Trümper 2013b: 38; Shear 1969: 398.

⁸⁷³ Trümper 2013b: 38; Artz 2012: 8; Shear 1969: 398.

⁸⁷⁴ Deforest 2020: 333; Trümper 2013b: 38.

⁸⁷⁵ Deforest 2020: 344-345.

In her study on the urban development of Athens, Rubina Raja mentions that the preservation of pre-Roman monuments was a central feature of the urban development in Roman Athens. 876 This is perhaps why, from the mid-first to third century CE, we find very little new construction on the Acropolis, and why many of the additions to the Agora tended to fill in or border open spaces. 877 Baths, however, seem to have been an exception to this rule in the area of the Agora. In addition to the Southwest Baths already discussed, the similarly sized (or larger) Northwest Baths, located at the northwest corner of the Agora, replaced a Hellenistic structure. It is not known when this earlier building was removed to make way for the baths, but the baths' first phase went out of use after the mid-third century, and a second phase was built on the ruins of the first in the late Roman period.⁸⁷⁸ Not much is known about the integration history of the rest of the bathing facilities in the vicinity of the Agora (Travlos' Bath W (the East Baths), Bath X (West Baths), and Bath U (Areopagus Slope Baths)), although the area in which they were located was residential in nature by the Roman period. The same can be said about the second century Karyatidon Street Baths (Travlos' Baths C) baths located south of the Acropolis, as archaeological research has not been able to reveal much of the area because of modern development.879

Generally, however, those responsible for building during the Roman period predominantly concentrated on forming new public spaces, and it is in these places that we find the largest Roman baths in Athens. 880 One such area of new urban development is the area

⁸⁷⁶ Raja 2012: 131.

⁸⁷⁷ Raja 2012: 98-103, 105-114.

⁸⁷⁸ Deforest 2020: 335, see footnote 30 for bibliography. This second phase of the baths seems to have been destroyed in the late fourth century (Deforest 2020: 335; Shear 1997: 509-512).

⁸⁷⁹ Deforest 2020: 339.

⁸⁸⁰ He refers to all of these baths as '*balaneia*,' a term which is generally used to refer to private smaller bathhouses. Unfortunately, Travlos makes no distinction between public and private baths in his discussion. See Travlos 1971: fig. 221 and 180-181 for his discussion of the baths.

around the Ilissos River, where a number of monumental buildings, including numerous baths, were erected during the Hadrianic period and later. R81 This includes the baths north of the Olympicion (Travlos' Bath I), the monumental Zappeion Baths (Bath K; possibly Hippias' Bath) to the northeast, and Bath O even further north. The baths north of the Olympicion were part of a larger Hadrianic city expansion and public building program that completely changed the landscape of this area and included the Temple of Olympian Zeus (the Olympicion) and the Arch of Hadrian. Apparently, soon after the Olympicion Baths were erected, R82 the Zappeion Baths (a monumental bathing facility modelled on the imperial *thermae* of Rome) were added just to the northeast of the Olympicion Baths. As these baths were largely destroyed when the modern Zappeion complex was erected, not much is known about their phasing and integration into this area. The third bathing facility in this Hadrianic quadrant of the city, Baths O, was located in an area that in the early Roman period was filled with workshops and cemeteries. This entire area was converted to this large bath complex (some 5500 m. sq.) in the late third or early fourth century.

To summarize, from the limited information that we have, the integration of Roman-style bathing facilities into Athens seems to have been a gradual process. It began with the conversion of two older Greek baths (the Southwest Baths around 50 CE and the *loutron* of the Lyceum Gymnasium sometime after Sulla's destruction), followed by an uptick in bath-building during the second century. It is to this time that we see the largest Roman baths being introduced (e.g., Zappeion Baths, the Olympieion Baths, and Bath O) as part of the creation of a new public sector in the area around the Ilissos River which had been outside the city until Hadrian expanded it.

⁸⁸¹ Raja 2012: 95.

⁸⁸² The original excavators (Dumont 1873: 51) indicate that the baths were post-Antonine but do not give any reasons for this date.

⁸⁸³ Deforest 2020: 343.

Gortyn, Crete and Cyrenaica

During the last two decades of the third century BCE, Gortyn underwent a re-foundation following an internal civil conflict. This renewal included the foundation of new magistracies, the minting of civic coinage, the re-development of the city's urban centre on the southern slopes of the acropolis, and the introduction of a uniform road system in the area of the main public spaces. Beautiful also began to expand to the southeast in this period. Although these new sectors show some internal uniformity in their planning, there was no city-wide systematic street grid plan, Beautiful and Cyrenaica in 27 BCE, except perhaps in the area of new expansion southeast of the Pythian sanctuary. BCE, except perhaps in the construction of a number Roman-style public buildings by the second and third centuries CE in this area, seems to have advanced the shift of the urban centre away from the agora (begun at the end of third century BCE) to the area around and southeast of the Pythion sanctuary.

As at Thessaloniki, Gortyn underwent its greatest period of Roman-style urban construction and growth in the second and first half of the third century CE, especially in the area of the southeastern extension of the city. Here an amphitheatre, the circus, possibly a new Roman forum, twin temples, and two large bath complexes (the so-called "Praetorian Baths" and

⁸⁸⁴ Lippolis 2016: 157, 160, 161.

⁸⁸⁵ Lippolis 2016: 160, 161.

⁸⁸⁶ Masturzo and Tarditi 1994-1995: 304. Lippolis suggests on a plan of the city (2016: fig. 11.2) that the city had a main axis created at intersection of the two most important city streets, as is typical in Roman cities (just north and east of the Pythion sanctuary); however, there is no indication when the *cardo* and *decumanus* streets which create the main intersection were introduced into the city or whether their orientation was imposed on the street orientations in the rest of the city.

⁸⁸⁷ The area around the Pythion was suburban in the third century BCE, with the sanctuary marking the eastern border of the city (Lippolis 2016: 163). The agora and surrounding area did not completely lose its importance in the Roman period; monumental additions were made from the Augustan age into the second century CE. For example, the Classical period *bouleuterion* was converted into a Roman *odeum* in the Trajanic period (Lippolis 2016: 165, 167; Masturzo and Tarditi 1994-1995: 303).

⁸⁸⁸ Antonelli et al. 2017: 581.

the Megali Porta Baths) were constructed. 889 The Praetorium Baths were built in an area that originally housed an athletic complex complete with a gymnasium and stadium, both of which were begun between the second half of the second century and first half of the first century BCE and were completed in the late Augustan or early Tiberian period. 890 The baths were built directly overtop of the gymnasium in the second century CE, perhaps replacing the *loutron*. The stadium remained in use after the conversion of the gymnasium into a bath, and the northernmost section of its western analemma wall was connected to the porticoed courtyard of the bath complex by a flight of steps. 891 The larger Hadrianic Megali Porta Baths to the southeast of the Praetorium Baths were built in an area that probably had little pre-existing architecture and seem to be one of the first monumental public constructions in this area, which later saw the addition of a sacred area with twin temples in the Antonine period and a possible Roman forum to the east. 892

At Gortyn then, the extant Roman baths were integrated into the city in the second and early third centuries CE in the expanded sector of the city near the Pythian sanctuary, where along with the erection of other Roman public buildings they indicate the creation of a new public space (similar to what is seen in Hadrian's expanded city at Athens) and a shift of the public sector away from area of the Greek agora. While the Praetorium Baths seem to have replaced the bathing facilities of the gymnasium found beneath it, those who built the Hadrianic Megali Porta Baths seem to have looked to unoccupied space to construct their large public baths rather than building overtop of pre-existing Greek architecture.

⁸⁸⁹ The Praetorium baths date to the second century CE, possibly Hadrianic (Di Vita 2000: 46-47; Di Vita 2010: 164-71), and the Megali Porta baths are also attributed to the Hadrianic period (Lippolis 2016: 169). It is possible that Hadrian visited Gortyn in 122 CE (Lippolis 2016: 159), which many at least partially explain the uptick in the construction of Roman building types (including the two baths) during this period.

⁸⁹⁰ Lippolis 2016: 163, 166.

⁸⁹¹ Di Vita 2000: XXXV, XLI.

⁸⁹² Masturzo and Tarditi 1994–1995: 267, 271, 302, 305, Di Vita 1988: fig. 1.

Coloniae

Colonia Iulia Augusta Diensis, Macedonia (modern Dion)

Already in existence from at least the fifth century BCE, 893 the city of Dion acquired its fortification walls and regular street grid during the reign of Archelaus (415-399 BCE). Unfortunately, not much more is known about the urban landscape of the Classical and Hellenistic city, ⁸⁹⁴ or how the city-scape changed and developed once it came under Roman control in 149 BCE. 895 There is a similar gap in our knowledge about the urban landscape of the city after it was re-founded as a colonia by Octavian around 30 BCE, when Roman veterans were settled amongst the indigenous population. 896 The city experienced a period of prosperity during the Severan period (like many of the cities under discussion), and it is to the this period that monumental changes and additions to the city's landscape were made. This included the renovation of the Hellenistic agora⁸⁹⁷ into a monumental three-aisled porticoed Roman forum, as well as the construction of many of the city's Roman public buildings. 898 At least three Romanstyle baths were built during this period, including the "Great Baths," dated to the end of the second century, the Severan "Forum Baths," and the late second-to-early third century "Central Road Baths,"899 all clustered around the forum itself and likely built as part of the Forum restructuring. Unfortunately, knowledge of what lay beneath these three baths is limited; however, if the Hellenistic agora is below the Severan forum, both the Great Baths and the

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⁸⁹⁹ Oulkeroglou 2017: 287, 312.

⁸⁹³ The first reference to Dion comes from Thucydides (*History of the Peloponnesian War* 4.78), who mentions the Spartan general Brasidas' presence there in 425 BCE.

⁸⁹⁴ Oulkeroglou 2017: 287, n. 2.

⁸⁹⁵ Date: Livy Ab urbe condita 44.7, Zarmakoupi 2018: 287.

⁸⁹⁶ Pliny Naturalis Historia 4.10; Ptolemy Geographia 3.13.15; Oulkeroglou 2017: 287.

⁸⁹⁷ Excavations under Dion's forum have found evidence of the agora, including what might have been the Hellenistic city's *bouleuterion* (Evangelidis 2014: 349).

⁸⁹⁸ The forum received the typical Roman public civic and administrative buildings at this stage including the Sebasteion, basilica, *curia*, and *odeum* (Zarmakoupi 2018: 288; Evangelidis 2014: 351).

Forum Baths likely replaced buildings around the agora, perhaps shops or other public structures. It is also not known where the Greek baths were located in this city.

Colonia Iulia Augusta Philippensis, Macedonia (modern Philippi)

Founded by Philip II in 356, the city of Philippi seems to have had a 'Hippodamian' plan from the outset (as indicated by the position of the city gates), but few other traces of the Classical and Hellenistic city have been found. 900 An inscription referring to a *bouleuterion*, indicates the presence of an agora, but its exact location (or that of the location *bouleuterion*) is unknown as excavations under the Roman forum indicate that it was not built over top of the Greek agora. 901

Following the 42 BCE victory of Antony and Octavian at the Battle of Philippi, Antony settled veterans in the city; however, Augustus later (following the Battle of Actium) re-founded the colony as *Colonia Iulia Augusta Philippensis* and introduced new settlers (both veterans and Roman colonists). These new colonists formed a minority of the largely Greek and Thracian population, and the Hellenistic cultural and urban landscape seems to have continued into the imperial period. The city's first Roman forum was not established until the reign of Claudius (to be renovated once more during Marcus Aurelius' rule), while most of the other major Roman constructions (e.g., the Capitolium, buildings for the cult of the emperor, the library, *curia*, basilica, *rostra*, aqueduct, etc.) all date to second century CE.

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⁹⁰⁰ Zarmakoupi 2018: 280; Koukouli-Chrysanthaki 2011: 441, 442. Date: Provost 2001: 125.

⁹⁰¹ Evangelidis 2014: 349; Sève 1985: 870. It has been suggested that the agora may lay a just east of the forum (near the early Christian octagonal church), based on the discovery of a Hellenistic funerary *heroon* on top of which was a temple-like building (Koukouli-Chrysanthaki 2011: 443).

⁹⁰² Koukouli-Chrysanthaki 2011: 447.

⁹⁰³ Oulkeroglou et al. 2019: 229; Evangelidis 2014: 349; Koukouli-Chrysanthaki 2011: 448. While there is evidence of Hellenistic structures underneath the forum, their function is unknown (Koukouli-Chrysanthaki 2011: 443).

⁹⁰⁴ The axial arrangement of the streets (with *decumanus maximus* and *cardo maximus*) also appears to have been in place by the reign of Marcus Aurelius (Koukouli-Chrysanthaki 2011: 448).

of Philippi are all centered around the forum, although the earliest and smallest of the three (the small baths of the Octagon Complex) apparently pre-date the forum's construction. 905 The partially uncovered baths found northeast of the forum have not been more securely date than the earlier imperial period, 906 but if this general dating is correct, these baths may have been part of a larger public building program in the Claudian period, including the forum. The Large Baths to the southwest of the forum are thought to have been constructed in the second half of the second century and may have been part of the monumental refurbishment of the city centre in the reign of Marcus Aurelius. 907 Although excavation has not yet revealed what lay below each bathing structure, the forum area had previously been occupied by a residential zone, 908 making it possible that the baths also replaced what had been domestic spaces in the Hellenistic city.

Colonia Augusta Buthrotum, Epirus (modern Butrint)

The first evidence of settlement at Butrint (in the ninth century BCE) was centred on the acropolis, with the town expanding down onto the lower terraces on the hill over the next five centuries. 909 The land below was all marsh, except for a sizeable gravel bank close to what would become the south shoreline in the Roman period. During the course of the Hellenistic period, the settlement continued to be centred around the hill, with a public area, including agora and sanctuary to Asclepius, built into the lowest terraces along the south side. To the south was marshy land and a gravel bank which made it unfit for settlement. 910 The Roman colony, established by Caesar around 44 BCE, 911 was therefore partially *ex novo*, as it was only during

⁹⁰⁵ They date to the re-founding of the city as a colony by Octavian in 30 BCE (Oulkeroglou 2016: 180).

⁹⁰⁶ Oulkeroglou 2016: 177.

⁹⁰⁷ Oulkeroglou et al. 2019: 241, 242, 248; Oulkeroglou 2016: 176.

⁹⁰⁸ Zarmakoupi 2018: 281.

⁹⁰⁹ Martin 2020: 79-80.

⁹¹⁰ Hodges 2013, fig. 1.6.

⁹¹¹ Bowden 2011: 102; Hodges and Hansen 2007: 6.

the Roman period that the marshy land was filled in and settlement could be extended to the south. Therefore, those responsible for constructing the buildings in this area, including the five known baths, did not have pre-existing Hellenistic settlement to contend with, except in the area on the south slopes of the hill, which had been the focus of Hellenistic public building. 912

This area on the south slopes of the hill underwent a series of reforms, first in the Augustan period and then later again under Hadrian. 913 These changes included the transformation of the agora into the city's forum, complete with a tripartite shrine (possibly the Capitolium), a temple for the imperial cult, and a basilica. 914 The area west of the forum, although continuing to be dominated by the Sanctuary of Asclepius and Hellenistic theatre, received updates at the same time. These updates included the addition of an early Augustan bathing complex, 915 built partially over a Hellenistic building of indeterminate function, which appears to have been demolished to make room for it and a colonnaded road out front that connected the forum to the theatre. 916 The section of the Hellenistic defensive wall that ran from a gate south of the theatre east to the Republican tomb (later incorporated into the so-called "Gymnasium") also seems to have been demolished to make room for the forum 917 and perhaps also the baths. As mentioned in the second chapter, the urban situation and integration of the

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⁹¹² Unfortunately, our understanding of the physical change to the urban landscape upon the founding of the colony is relatively limited (almost exclusively limited to the public area of the town) despite extensive excavations. This is due in part to high ground water hampering excavations (Bowden 2011: 105).

⁹¹³ Ceka 2001: 186.

⁹¹⁴ Hernandez and Çondi 2016: 631, 640, 643. During the Hadrianic period all the buildings on the north side of the forum were destroyed and rebuilt on a grander scale. It is to this building phase that the temples belong (Hernandez and Çondi 2016: 631).

⁹¹⁵ Hodges and Hansen 2007: 8. This makes them roughly contemporary to the erection of the first public baths of Rome, those built buy Agrippa in the Campus Martius (Hernandez and Çondi 2016: 644).

⁹¹⁶ Unfortunately, excavated by the Italian mission under Ugolini, the Hellenistic structure remains unpublished (Hernandez 2017: 287).

⁹¹⁷ Hodges and Hansen 2007: 7.

other five baths cannot be discussed, as only Byzantine or Venetian period remains have been identified and excavated in their vicinity.⁹¹⁸

Colonia Laus Iulia Corinthiensis, Achaea (modern Corinth)

An important Greek urban centre, Corinth experienced a quite different fate to other preexisting Greek cities and towns, despite coming under Roman control at the same time (146 BCE). Ancient historians record that the city experienced a partial and selective destruction by Lucius Mummius. 919 At this time, the city seems to have lost much of its urban infrastructure, until the establishment of a new Caesarian colony (Colonia Laus Iulia Corinthiensis) in 44 BCE on the same site. 920 Upon the founding of the colony, a new north-west grid was introduced, with the Lechaion Road as the principle *cardo maximus* of the urban colony. 921 There was, however, a second Roman land division which David Romano argues was the result of the Flavian refoundation of the colony during the reign of Vespasian. Interestingly, size of the urban area decreased during the Flavian reformation, suggesting that the number of settlers was smaller than earlier anticipated, 922 and/or an early decline in the urban (and economic) importance of the site at this time. Roman monumental building continued steadily throughout the Roman period of the colony, well into the late Roman period. Interestingly, these new buildings did not always follow the grid orientation of the site, especially around the Roman forum, which David Romano is certain was levelled and landscaped after the destruction of the city. 923

⁹¹⁸ Hodges 2013: fig. 1.3.

⁹¹⁹ e.g., Pausanias Ελλάδος Περιήγησις 7.16.7-10; Dio Cassius Ρωμαϊκή Ιστορία 21.72.

⁹²⁰ Romano 2003 279.

⁹²¹ Romano 2003: 285.

⁹²² Romano 2003: 293.

⁹²³ Romano 2003: 287. The first large-scale Roman building in the area of the forum (including the podium Temple E to the west and the Julian Basilica on the east), however, dates to the Augustan period (Evangelidis 2014: 349).

The locations of two Greek baths are known at Corinth: the so-called "Fountain of the Lamps Baths" and the "Centaur Bath." The Fountain of the Lamps Baths are located c. 150 m west of the Asklepion and Gymnasium, north of the city centre and along the northern city wall. Initially constructed as early as the fourth or fifth century BCE, they were renovated shortly after the city was re-built in the early Roman period and refurbished once again under Hadrian. These renovations were largely superficial, as the baths were never converted into a traditional Roman-style bathing complex. The baths remained in use until the third quarter of the fourth century CE, likely serving the athletes of the gymnasium to the east, although they may also have been an important bath for anyone entering the city from the north. 924

The Centaur baths, originally erected in the last quarter of the fifth century BCE, fell out of use before the Roman period. This structure was destroyed, perhaps in the late fourth century BCE, and then replaced by a late Hellenistic columned hall in the second century BCE, which may have served as a house or state tax office. This hall was then destroyed during the destruction of the city by Mummius in 146 BCE and was eventually converted into a building with a cellar during the Roman period. With so much overbuilding, it would make little sense to choose this area as a site for a bath. Instead, those responsible for laying out the new Roman town and selecting a place for the baths looked to new areas, namely near the new forum, which lay northeast of the Centaur baths and southeast of the Fountain of the Lamps Baths.

The Augustan baths north of the Peribolos of Apollo, the Peirene spring and the forum were built in an area which seems to have held a dye workshop from the fourth century BCE up

⁹²⁴ Biers 2003: 305, note 7; Wiseman 1970: 135.

⁹²⁵ De Grazia and Williams II 1977: 40, 41, 51, 52.

⁹²⁶ Another Roman bath is known to north of the theatre, however, as not much is known about its integration into the city (or even its precise date), it has not been included in this survey (See Biers 2003: fig. 18.1).

until the time of the city's destruction in 146 BCE. 927 These baths are thought to have gone out of use in the late second or early third century CE, and it is possible that the Great Baths on the Lechaion Road further north were built (around 200 CE)928 to replace this smaller bath. It is unknown what was built over the bath north of the Peribolos, but it seems possible that those responsible for the erection of the Great Baths either could not secure enough land close to the forum for their baths or perhaps it was as easier and more cost efficient to start afresh, further north. As the Great Bath was never fully excavated or published, it is not possible to say what lay beneath them. 929

Cities and towns with no known formal status

Argos, Achaea

Occupied since the Bronze Age, Argos is the oldest continuously occupied city in Greece, a situation which has made understanding the topography of the ancient city difficult. Only a few small areas of ancient Argos, located in the eastern Peloponnese, have been revealed through excavation, and much of the city is only known through the descriptions of ancient authors. 930 While archaeological excavation is helping to reveal more (largely headed by the French School of Archaeology at Athens), modern building on the site has hindered wide-scale excavation leaving much of the Classical, Hellenistic, and Roman urban landscape and architecture unexplored. 931

⁹²⁷ De Grazia and Williams II 1997: fig. 1, fig. 3.

⁹²⁸ Biers 2003: 305, 308.

⁹²⁹ See Biers 2003 and 1985.

 $^{^{930}}$ Tomlinson 2014: 15. Of particular mention is Pausanias (Ελλάδος Περιήγησις 2.18.4 – 2.24.4), who describes many of the city's public buildings as he saw them during his visit in the second century CE, does not mention the baths. Strabo (Geographica 8.6.7-10), gives a less in-depth treatment, and also does not mention the baths. 931 Tomlinson 2014: 16-17.

In the second century CE, the area east of the agora became a sort of secondary urban hub that included the fourth century BCE theatre, 932 the two-phase Roman odeum 933 and a Roman religious complex dedicated to either the god Serapis or Asclepius. 934 In the later second century, a monumental public bath complex (Bath A or the Theater Baths) was built into the sunken porticoed courtyard of the cult complex. 935 Another large bath building (Bath B), later in date than Bath A, bordered the agora to the south and, like Bath A, was constructed over an earlier building. Here, an earlier Hellenistic gymnasium was incorporated into the palaestra on the eastern end of the baths. 936

Eretria, Achaea

The earliest occupation evidence at Eretria dates to the ninth century BCE. The city was destroyed in 490 BCE by the Persians but was rebuilt shortly afterwards and extended from the acropolis in the north to the seashore c. 850 m to the south. The urban and cultural landscape appears to have been relatively unchanged⁹³⁷ until the early first century BCE, when there was a break in occupation, likely because of the destruction of parts of the city under Sulla. 938 Following this destruction, there was a revival under Augustus, which saw some buildings from the Greek city restored (e.g., the theatre and gymnasium), 939 but little Roman urban development

⁹³² Tomlinson 2014: 19.

⁹³³ The *odeum* has two identifiable phases, although only the second phase has been dated (to the Roman period) (Tomlinson 2014: 19).

⁹³⁴ The baths original excavator thought the cult complex was dedicated to the Egyptian god Serapis, while Lancaster argues that it was for the Greek god Asclepius (Lancaster 2015: 54). Evangelidis has suggests that it might have been connected to the imperial cult (2014: 348). See Chapter Two, footnote 626 for a discussion of the dating of the cult complex.

⁹³⁵ Lancaster 2015: 54, fig. 29.

⁹³⁶ Aupert 1983: 848, 853. The date of the gymnasium's foundation is unclear. The Hellenistic period, the second century or beginning of the first century BCE, and the first century CE have all been suggested (Aupert 1983: 849,

⁹³⁷ Aside from another sacking, this time by the Romans, in 198 BCE which destroyed some private dwellings and public monuments in the western sector of the city (Ducrey and Randall 2004: 96). 938 Theurillat et al. 2018: 249, 251, 257.

⁹³⁹ Theurillat et al. 2018: 251; Ducrey and Randall 2004: 2004: 49.

aside from the insertion of a Sebasteion. The city nevertheless did not regain its former size, but instead contracted away from the seashore, harbour, and agora area to the south. Roman building in the second century instead concentrated in the northern area of what had been the Classical and Hellenistic town around the acropolis and the intersection of the two main north-south and easter-west roads (joining the Sebasteion).⁹⁴⁰

It is in the western quarter of the contracted Roman city that second century public baths are found, two *insula* removed from the southeast corner of the main town intersection in an area that had become full of shops and houses by the second century CE. ⁹⁴¹ The baths themselves were built directly overtop of a multi-phase Hellenistic house and re-used some of the materials and motifs from the ruined gymnasium to the north. ⁹⁴²

Here, none of the Greek-style baths were up-graded or converted into a Roman bath. This includes the Hellenistic Greek-style baths by the harbour, built sometime after 300 BCE, 943 and the *loutron* and other bathing facilities of the Gymnasium, built into the slope of the Acropolis and dating to the late fourth century and late Hellenistic period, respectively. 944 There were also two smaller *tholos* baths: the Hellenistic example found northeast of the agora, and the mid first century BCE *tholos* baths located at the southwest corner of the crossroads of the *decumanus maximus* and *cardo maximus* of the Roman city, directly north of the later Roman-style baths.

The Harbour Baths remained in use until the Late Hellenistic period, presumably surviving the destruction of the city by Sulla in the early first century BCE. 945 The Gymnasium Baths, meanwhile, not only survived Sulla's destruction and received some repairs (that did not

⁹⁴⁰ Theurillat et al. 2018: 250, 251. Environmental factors may also have influenced the abandonment of some areas of the Greek city: lowland sides in the east and west of the city had become swampy (Theurillat et al. 2018: 250). ⁹⁴¹ Theurillat et al. 2018: 251.

⁹⁴² Reber et al. 2018: 129; Reber et al. 2012: 141; Theurillat et al. 2018: 257.

⁹⁴³ Theurillat et al. 2018: 253; Fournet et al. 2013: 289.

⁹⁴⁴ Ackermann and Reber 2018: 166; Theurillat et al. 2018: 25.

⁹⁴⁵ Theurillat et al. 2018: 253.

include the addition of a hypocaust system), ⁹⁴⁶ but T. Theurillat, G. Ackermnann, and S. Zurbriggen suggest that it became the social and public centre of the city in the Late Hellenistic period. ⁹⁴⁷ Eventually, however, the entire complex fell into ruin and by the mid-second century CE had become a dumping ground and a quarry for building materials. ⁹⁴⁸ The small *tholos* baths northeast of the agora are Hellenistic in date, but it is unknown when they went out of use. ⁹⁴⁹

The *tholos* bath southwest of the crossroads of the *decumanus maximus* and *cardo maximus* of the Roman city is unusual. Built in the middle of the first century BCE, its construction is not only much later than usual for this bath-type, but it is also dated to the period after the Romans had destroyed and then taken control of the city. Thus, the first bath that the Eretrians chose to build in the Roman period was Greek in style, not Roman. When the decision was eventually made to supply the city with a hypocausted Roman bath, those responsible did not chose to remodel any of the aforementioned Greek-style baths. Instead, they started *ex novo*, choosing the site directly south of the earlier *tholos* baths at the crossroads. These new baths may have been the catalyst behind the abandonment of the Gymnasium and its baths by the mid-second century CE, 951 as well as possibly the late crossroads *tholos* baths (although they seem to have been abandoned earlier, in the later first century CE). 952

Like was seen at Athens and Gortyn, the Roman baths at Eretria were inserted into a new public area of the town, although here the shift was to the result of the contraction of the city rather than its expansion. Moreover, the erection of a Roman-style baths does not appear to have

⁹⁴⁶ Wassenhoven 2012: 97.

⁹⁴⁷ Theurillat et al. 2018: 251.

⁹⁴⁸ Ackermann and Reber 2018: 171; Reber et al. 2018: 129; Wassenhoven 2012: 97, 106.

⁹⁴⁹ Theurillat et al. 2018: 254.

⁹⁵⁰ See Theurillat et al. 2018 for a full discussion of the change over from Hellenistic to Roman baths in Eretria and the implications this has for the 'Romanization' of the city.

⁹⁵¹ Ackermann and Reber 2018: 171.

⁹⁵² Theurillat et al. (2018) suggest that the tholos baths were in use throughout most of the first century CE.

been deemed necessary until the second century, perhaps because the remaining inhabitants of the contracted city were still using the Gymnasium Baths and the Greek *tholos* bath southwest of the crossroads of the *decumanus maximus* and *cardo maximus* that was newly built during the revival of the town following a period of abandonment because of Sulla's destruction.

Sikyon, Achaea

In existence by the seventh century BCE, the *polis* of Sikyon prospered during the Archaic and Classical periods, but was destroyed and then re-founded by Demetrios Poliorketes in 303 BCE, on what had been the city's terraced acropolis. 953 It is likely following this refoundation that a new rectilinear street gird based on the cardinal points was introduced. 954 Traces of the streets have been found predominately in the lower area of the city where occupation was most dense during the middle Hellenistic to early Imperial periods, with the upper plateau (acting as the new acropolis) reserved for agriculture and cattle. 955 It is in the transitional area between these upper and lower zones of the city that many of the public buildings and spaces of both the Hellenistic and Roman city are found. This includes the Hellenistic stadium and theatre, the agora and its associated early Hellenistic *bouleuterion*, stoa, as well as a palaestra/gymnasium complex. All of these public structures continued to be used during the Roman period, as was the city grid plan. 956

⁹⁵³ Lolos and Gourley 2011: 72, 87.

⁹⁵⁴ Lolos and Gourley 2011: 92, 96.

⁹⁵⁵ Lolos and Gourley 2011: 94. A rather steep escarpment divided the city into two topographical zones; an upper and a lower plateau (Lolos and Gourley 2011: 88). Lolos and Gourley (2011: fig. 21, fig. 50) have reconstructed the street grid pattern for the city.

⁹⁵⁶ Pausanias Ἑλλάδος Περιήγησις 2.7.7-8.2, 2.9.6-10.2; Lolos 2011: 279; Lolos and Gourley 2011: 124, 125, 127. The theatre and stadium are built into the escarpment of the two terraces, while the agora and the buildings surrounding it where on a high terrace of the lower city plateau (Lolos and Gourley 2011: 128).

Roman building in the area included the conversion of the home of the tyrant Kleon into a temple for the imperial cult⁹⁵⁷ and the insertion of a Roman bath building north of the agora. Limited excavation and geophysical survey in the area of the baths prevents an understanding of whether they were part of the agora, bordered it, or were separated from it by a road. There is also no information about what lay beneath them. Bordered to the north by Street 11 and to the west by Street D, it is clear, however, that the baths lay on the same orientation as the rest of the buildings in the agora, and thus conformed to the Hellenistic grid system.⁹⁵⁸

Aptera, Crete

Located along the southern shore of the Souda Bay on the north-western coast of Crete, the area of the later Greek *polis* and Roman town was first settled in the late eighth to early seventh century BCE. 959 Not much is known about the layout of the Archaic town or Hellenistic *polis*. Aptera, along with the rest of Crete, came under Roman dominion in 67 BCE, and during the first and second centuries CE, the city enjoyed a new period of prosperity, during which time a number the city's public buildings were erected, 960 including two public baths, built in the centre of town. 961 Unfortunately, as neither bath has been completely excavated, it is not known how they were integrated into the pre-existing landscape. A clue may come, however, from Hellenistic cisterns found in the area of the later Roman baths. As Aptera did not have access to a natural spring in the area, both baths were fed by a pair of cisterns (one gamma-shaped and vaulted, and the other one tripartite in construction). 962 Between Bath 2 and the gamma cistern to

 $^{^{957}}$ Pausanias Ελλάδος Περιήγησις 2.8.1. We do not know much about Sikyon's relationship with Rome other than what Cicero tells us in his letters to Atticus (*Atticus* 1.13.1, 1.19.9, 2.1.10, 2.13.2) and Verrine orations (*In Verrem* 2.1.45) that it was likely a *civitas libera*.

⁹⁵⁸ Lolos and Gourley 2011: 127-128, fig. 21; Lolos 2011: 277.

⁹⁵⁹ There is evidence of a LM IIIC burial (Stampolides et al. 2019: 45.

⁹⁶⁰ Niniou-Kindeli and Chatzidalis 2016: 128.

⁹⁶¹ Niniou-Kindeli and Chatzidalis 2016: 128, Baldwin Bowsky and Niniou-Kindeli 2006: 409.

⁹⁶² Stampolides et al. 2019: 53.

the south, excavators located a Hellenistic period cistern, and the tripartite cistern south of Bath 1 was built on the piers of another Hellenistic cistern. Hellenistic period (as evidenced by the Hellenistic cisterns) and those responsible for locating the Roman baths wanted to take advantage of these pre-existing resources.

Discussion:

As is clear in the discussion above of the urban settlement history of the towns and cities of Greece, knowledge of the late Hellenistic and early Roman urban landscapes is in many cases limited, and thus by extension so too is our understanding of the processes by which Roman and Greek forms of urbanism influenced each other to create a new urban environment during the earliest Roman period of the city or town. ⁹⁶⁴ Generally, however, in the eleven Greco-Roman cities considered above, Greek forms of urbanism continued in use into the Roman period and sometimes into the second or third century CE, regardless of the status of the town (whether the seat of the governor, *civitas libera*, *colonia*, or city with no status). These Greek forms included orthogonal street grids (e.g., Sikyon), public spaces and buildings like the agora (e.g., Athens, Philippi, Dion, Gortyn), the gymnasium (e.g., Eretria, Sikyon), the *bouleuterion* (e.g., Athens, Sikyon), and baths (e.g., Athens, Corinth, Eretria, and Thessaloniki, to be discussed below). This continuation of the Greek urban landscape, often matched by a continuity in the cultural and

⁹⁶³ Stampolidēs et al. 2019: 53.

⁹⁶⁴ The 'earliest Roman period' refers to the period follow the Battle of Corinth in 149, at which time Macedonia was annexed as a Roman province and the southern region of Greece came under Roman hegemony. Our knowledge of what happened to the urban landscape of the cities and towns after southern Greece was made into the province of *Achaea* in 27 BCE is similarly incomplete (in most cases), although Butrint, and to a lesser extent, Eretria are exceptions.

political framework, is not surprising given the deeply rooted Greek culture of many of these cities and towns. The Greek population did not suddenly suffer from "cultural amnesia" and become fully Roman. Even in the cities with Roman settlers (whether they be veterans in colonies like Dion or citizen settlers like those in Thessaloniki, who came from Rome when the city became the seat of the governor in Macedonia) there does not seem to have been any wide-scale enforcement of Roman architectural forms in the city immediately upon their arrival (based on available evidence). Instead, it was a selective and gradual process by which new Roman architectural forms and spaces were integrated into the city. For example, in five of the seven cities known to have had a Roman forum, the addition of this characteristic Roman public space did not happen until well into the Roman period (i.e., second or third century CE) and reflects a gradual integration that was typical in the Greek East.

What about the baths? What were the circumstances under which they were introduced into Greek urban places? Most commonly, Roman baths were integrated into a city during a time of larger urban redevelopment when a number of different Roman buildings (e.g., forum, temple, theatre, etc.) were added to the city. Sometimes these large building projects resulted from a period of increased prosperity, often taking place during the second and early third centuries, as is seen at Thessaloniki, Gortyn, Dion, Philippi, and Argos.

In some cases, larger public building projects, including the baths, were begun during the creation of a new public space or the shift in the location of the city centre, often resulting from a change in city size. For example, during the Hadrianic period, Athens expanded in size, resulting

⁹⁶⁵ Sommer 2005: 726; For more on this, see Millar 1993.

⁹⁶⁶ Butrint seems to be an exception to this rule. In this area of Epirus the Romans were faced with restructuring the collapsed political and social power structure which they did through the settling of Roman colonists and building of new cities (i.e., Nicopolis) (Bowden 2011: 113; Ανδρεου 2007: 233).

⁹⁶⁷ Zarmakoupi 2018: 293; Evangelidis 2014: 349.

in the creation of new public spaces and buildings, including the Roman agora and the Olympieion. Set It is at this time that the Olympieion Baths, the Zappeion Baths, and Travlos' Baths O were constructed in the new southwest sector of the city (Hadrian's 'New Athens'). A similar situation occurred at Gortyn, where during the second and early third centuries CE, the city received a number of public Roman buildings (including two baths) in the southeastern extension of the city, which created a sort of secondary public hub in the area that may have included a forum. Set Meanwhile at Eretria, following a period of abandonment likely caused by the destruction of parts of the city under Sulla, the city contracted in size, and the new focus of the town (the intersection of the *cardo maximus* and *decumanus maximus*) saw the erection of a Roman bathing facility in the area (after the two Greek baths in the area had fallen out of use).

Periods of monumental forum re-modelling are one of the most common times for the insertion of a Roman baths into the urban fabric of the city. At the Roman colony of Dion in Macedonia, for example, following the foundation of the forum over top of the Hellenistic agora in the late second to early second century CE, no less than three public baths appear in the vicinity of the forum. A similar pattern is seen at Thessaloniki and the colony of Philippi, both also in Macedonia. At Thessaloniki, a set of Roman public baths were introduced to the forum area following its conversion from an agora, ⁹⁷¹ and in the case of Philippi, following the erection of the forum over what had been a residential sector of the city. ⁹⁷² Further to the southwest, in Epirus, Butrint received a forum bathing complex at same time that the agora was replaced by a

⁹⁶⁸ This increase likely resulted from the interest Hadrian took in the city, at partly renewing the city's status as a cultural and educational centre of the Roman world (Raja 2012: 95).

⁹⁶⁹ Masturzo and Tarditi 1994–1995: 267, 271, 305; Di Vita 1988: fig. 1.

⁹⁷⁰ Theurillat et al. 2018: 255.

⁹⁷¹ Vanderspoel 2010: 272.

⁹⁷² Zarmakoupi 2018: 280. The creation of the forum dates to the Claudian period (Oulkeroglou et al. 2019: 229; Evangelidis 2014: 349; Koukouli-Chrysanthaki 2011: 448).

Roman forum in the Augustan period,⁹⁷³ while Gortyn on Crete received two new baths when a second urban centre was created in the southeast sector of the city away from the Greek agora, possibly containing a Roman forum (although this has not yet been confirmed).⁹⁷⁴

In a number of the cities surveyed, Greek baths (along with a few gymnasia) continued to be used into the Roman period. One such example is the *tholos* baths at the crossroads of Eretria, which was even built after the city came under Roman hegemony. This continued use and even construction of Greek *balaneia* in the Roman period suggests that the switch to Roman-style baths and bathing practices in this region was not immediate. The inhabitants of these cities in the Roman period, while participating in a wider pan-Mediterranean "cultural sphere", did not do so (initially, at least) at the expense of many of their Greek institutions.

In most cases, when constructing a new Roman bath in Greek cities with pre-existing Greek baths, those responsible did not convert or build on top of the Greek *balaneia*. Instead, they generally looked to new locations, likely either purchasing or expropriating land for this purpose. ⁹⁷⁸ I have found only one example of a Roman bath built directly over top of a Greek predecessor: the Southwest Baths at Athens, although further excavation at Aptera and/or Gortyn may change this picture. Gymnasia, on the other hand, were occasionally converted (or at least partially in the case of the baths of the Lyceum Gymnasium at Athens) or built over. The Praetorium Baths at Eretria were built directly over a gymnasium, and the Hellenistic gymnasium at Argos was incorporated into the palaestra of Baths B. It has also been theorized

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⁹⁷³ Hernandez and Çondi 2016: 644.

⁹⁷⁴ Masturzo and Tarditi 1994–1995: 267, 271, 305; Di Vita 1988: fig. 1.

⁹⁷⁵ These include the Southwest Baths at Athens, the Fountain of the Lamps Baths at Corinth, the Gymnasium Baths, the Harbor Baths, and the Crossroad Baths at Eretria, and the Southeast Agora Baths at Thessaloniki.

⁹⁷⁶ Farrington has argued that there was some continuity in Greek bathing practice into the Roman period (1999: 57).

⁹⁷⁷ For this issue at Eretria see Theurillat et al. 2018.

⁹⁷⁸ Nielsen 1993a: 121.

that the Baths of Saint Demetrios at Thessaloniki were built over a Greek Hellenistic gymnasium.

What then were the considerations that influenced the choice of the bath builders to seek out new sites for their baths rather than making use of pre-existing bathing structures, and why where gymnasia converted or built over while *balaneia* were generally not?

As discussed above, Greek *balaneia* often survived into the Roman period. It is possible that, in those cities where Roman baths were built earlier in the Roman period (e.g., Philippi and Butrint), the continued use of the Greek baths forced the builders to choose a new location for the Roman bathing facility. ⁹⁷⁹ Not all *balaneia*, of course, survived into the Roman period. Some (like the Centaur Bath at Corinth, the Southeast Baths at Thessaloniki, and the three baths outside Athens' city walls) were destroyed or abandoned before the Romans arrived (or perhaps more accurately, before Roman bathing technology became widespread and popular). In such cases, the sites were likely already re-developed by the time the Roman-style baths were planned. This is certainly what happened to Corinth's Centaur Baths and the Southeast baths at Thessaloniki, both of which were heavily built over.

Another factor that may have dissuaded Roman-style bath builders from building overtop of or converting an earlier Greek *balaneion* is their unfavourable location. As Monika Trümper has pointed out, before the second century BCE, all the baths at Athens were outside the city walls, likely for socio-cultural and moral reasons. ⁹⁸⁰ While Roman baths were also sometimes built outside the city boundaries, these extramural baths were typically attached to waystations or

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⁹⁷⁹ The discovery of Greek baths in Philippi, Butrint, and other Greco-Roman cities is needed to access the validity of this suggestion.

⁹⁸⁰ Trümper 2013b: 33, 38

inns and were thus directed primarily at travellers. 981 I would also argue that they were probably privately rather than publicly owned. For the Roman public baths, locations within the city walls were preferred (as the surveys conducted in Chapters One and Two have demonstrated), and thus re-using bath sites outside the city walls (or any other location judged unsuitable to serve the city's population) was unappealing.

A change in the urban layout of the city was another factor that most certainly affected Roman bath placement. Such a change could involve the shift of the public centre of the town (Gortyn), the contraction of a city (Eretria) or an expansion of the city (Athens). The lack of Greek baths in these new (or newly zoned) areas required the building of new Roman baths to service those living in and frequenting them.

The differences in layout between the Greek and Roman baths may have played a role in the decision to look for new space when erecting a Roman public bath. As discussed above, Greek baths had tholoi and hip-baths rather than a series of rooms of different water and air temperatures controlled by a hypocaust heating system, and it may have simply been more cost efficient to build a new bathing structure from the ground up. A fresh start would have also ensured that the resulting baths were precisely suited the community's needs.

The larger size of the Roman-style public baths also likely played a role. In their catalogue of Greek baths, M. Trümper et al. show that the Greek baths at Athens, Corinth, Eretria, and Thessaloniki ranged in size from 95 m² to 406 m². 982 The Roman public baths from

⁹⁸¹ Trümper 2013b: 38.

⁹⁸² Many of the baths included in the catalogue have not been fully excavated and so their full size is not known. For this reason, the designation 'at least' has been included before the measurements given above following the practice in Fournet et al.'s catalogue. Most of the Greek baths from the catalogue (including those found in France, Italy, Sicily, Greece, Asia Minor/Turkey, Cyprus, Libya, and Egypt) were in a similar range (100-600 m²). The largest bath from Fournet et al.'s catalogue is the one at Megala Hyblaea at 1146 m² (including the courtyard to the south which may have belonged to the baths, or 645 m² without (Fournet et al. 2013: 275).

these same cities ranged in size from 480 m² to over 5000 m².⁹⁸³ Such a difference in size may have necessitated a different site if the planned Roman baths were considerably larger than the plot of land occupied by their predecessor.

While Greek *balaneia* were generally not converted into or covered by Roman baths, *gymnasia* occasionally were. The Lyceum Gymnasium at Athens, the Praetorium Baths at Gortyn, Baths B at Argos, and possibly the Baths of Saint Demetrios at Thessaloniki, were partially converted into or built over by a Roman bathing facility. As gymnasia were largely open space, with simple (albeit stone) architecture, they were perhaps easier to convert or demolish to make room for the new baths. Moreover, the area that they occupied was typically much larger than that by the Greek *balaneia* and so could have offered those building the new baths the space they needed to do so. Additionally, water infrastructure was already in place and could have been made use of by the later Roman baths (e.g., the Hellenistic water cisterns at Aptera).

Conclusion:

This chapter set out to present a better understanding of how the town officials responsible for introducing Roman public baths into the pre-existing urban landscapes in Greece integrated them into their dynamic urban landscapes and how these new Roman baths related spatially to pre-existing Greek *balaneia* and gymnasia baths. Unfortunately, for many of the cites surveyed there is very little extant evidence for urban development in the early Roman period. Instead, in most cases, evidence for the integration of large Roman public monuments, like the baths, dates later to the second and third centuries, often during times of prosperity or significant changes to the urban layout and zoning. Thus, the available evidence suggests that Roman baths

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⁹⁸³ Oulkeroglou 2016: 131, 139, Nielsen 1993b: 32-33.

were typically introduced during large scale renovation works to the town, often alongside other public buildings, most commonly the forum. Baths (as well as many of the other Roman building types constructed along with them) were expensive and large, and thus it makes sense that cities that already had public bathing facilities did not introduce Roman baths until sufficient funds and space were available. The restructuring, creation, or shift of an important public area in the town, funded through local and imperial benefaction, would have provided both.

At Athens, Corinth, Eretria, and Thessaloniki, Greek balaneia continued to be used into the Roman period. In only one of these cases was the Greek bathing complex later converted into Roman baths (the Southwest Baths at Athens). Gymnasia also continued to be used into the Roman period. We have evidence for the partial conversion of one of these Greek-style baths (the Lyceum Gymnasium, Athens) and construction of Roman baths over another two or three of these earlier structures (the Praetorium Baths at Gortyn, Baths B at Argos, and possibly the Baths of Saint Demetrios at Thessaloniki). The rest of the Roman baths examined in this chapter survey were built either on new ground (like the Megali Porta Baths, at Gortyn) or over other Hellenistic structures that were not used for bathing, examples of which include the Northwest Baths at Athens, the baths north of the Peribolos of Apollo at Corinth, the early Augustan Baths at Butrint, Bath A/Theatre Baths at Argos, the three baths located around the forum at Dion, and possibly the Baths of Achiropoirtos and the Baths of Hagia Sophia at Thessaloniki. The reason that new locations were chosen for the baths was likely a combination of availability of space, the need to provide bathing facilities to newly established urban areas, the unsuitability of Greek baths for conversion (infrastructure and issues of size/plot space), and cost efficiency, as it may have been more cost efficient to build a new bath that was exactly suited to needs to the city population than try to convert an older structure.

Chapter 4 The Integration of Roman Baths in Britain

Like Chapter 3, this chapter seeks to interrogate the physical integration of Roman civilian baths into urban space, this time in Roman Britain, where public bathing was introduced alongside military action. I am asking similar questions to those in Chapter 3 with the aim of highlighting the role of locals in the placement and construction of these bathing facilities. These questions include: how did the town officials responsible for introducing Roman civilian baths into towns with pre-existing settlement histories (such as indigenous *oppidum*, Roman military fort, *vicus/canabae*, etc.) integrate these building types into their developing urban landscapes? How much were pre-Roman settlements changed to accommodate Roman public baths? In the towns that developed out or overtop of military forts/fortresses, were legionary baths or pre-existing bathing infrastructure re-used or recycled in the civilian period of the settlement, after the army withdrew? These questions will be answered by tracing what lay below the Roman civilian baths of thirteen cities and towns in Roman Britain, to reveal how they were related to what came before them, as well as any physical relationships to pre-existing military bath-buildings (in those cities/towns that developed out of a military settlement).

This chapter is organized into three sections. The first section looks at the pre-Roman urbanism, first summarizing the types and organization of pre-Roman landscapes in Roman Britain, before discussing the interaction of Roman (civilian and military) and indigenous forms of urbanism. In doing so, this section explores the extent to which pre-Roman urban and Roman military settlements were changed to accommodate the insertion of new Roman civic buildings, street plans, etc., and how these new urban landscapes developed over time. This section ends

with a discussion of the general trends in the urbanism of Roman Britain, which will form the basis for the following discussion about the how the integration of Roman baths fits into these larger patterns.

The second section of this chapter builds on this discussion about the ways in which the inhabitants of Roman Britain interacted with their pre-existing landscapes and developing their towns and cities. This section presents a survey of the integration of Roman baths into nine towns, with a variety of settlement histories, but for which there is no evidence of earlier military forts or fortresses (and by extension, no evidence of military baths). Specifically, the survey presents the construction history of the baths in each town, along with what originally occupied the land on which they were built, revealing the changes made to the urban landscape in order to make room for these large public buildings.

Following the same framework as the second section of this chapter, the third and final section focuses on the integration of baths into the towns and cities that developed out of military settlements. Once again, I survey what lay beneath the civilian baths, this time at Exeter, Wroxeter, Lincoln, and Colchester, to reveal how these communities integrated new, Romanstyle baths into their developing civilian towns as well as the baths' relationship to previous military baths and infrastructure, whether that be modification, partial re-use, or full rejection. This section will also include a discussion of possible motivating factors behind the choices made by those positioning and constructing the new baths.

Section I: The Interaction of Roman and pre-Roman urbanism in Roman Britain

"Britain, for the Romans," David Shotter writes, "was a distant land, a place of myths and half-truths, where the people were primitive and quarrelsome."984 The scarcity of first-hand accounts, and the basic ignorance (or disinterest) of ancient authors who do address pre-Roman Britain, has left a fragmentary understating of the Iron Age indigenous peoples. 985 Even in modern scholarship, the picture of Iron Age Britain is less than clear cut, although in this case it is not because of a lack of interest. It is thought that the majority of the pre-Roman inhabitants were Celtic speakers, organized into various tribes (such as the Atrebates, the Iceni of Boudican infamy, the Silures in Wales, etc.). Furthermore, archaeology has revealed that they lived in a wide range of settlement types, including hillforts, numerous oppida (indigenous villages), and on rural farms. Approximately 1,400 Iron Age hillforts are known, scattered (rather unevenly) across the British landscape. 986 While most show evidence of occupation, and some like Maiden Castle (dating after 100 BCE), had wooden houses, storage pits, and relatively ordered streetnetworks, others appear to have been used only intermittently. 987 The countryside surrounding these forts was chiefly divided into farmland. Numerous oppida have also been found, mostly in areas where hillforts are relatively rare (East Anglia and the east Midlands). 988 While these villages typically showed some degree of urbanism, none had the features (including permanent architecture, defined commercial, administrative, and residential zones) that would have made them recognizable to the Romans as towns.⁹⁸⁹

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⁹⁸⁴ Shotter 2004: 12.

⁹⁸⁵ Tacitus writes: "Who the inhabitants of Britannia were, whether natives or immigrants, remains obscure, as is usual with barbarians" (*Agricola* 11; trans. Potter and Johns 1992: 12). Similarly, Gaius Julius Solinus, although writing c. 200 CE, a whole 150 years after Britain became a province, refers to it as being 'another world' (Potter and Johns 1992: 12; Solinus *Collectanea rerum memorabilium* 22, 1-12).

⁹⁸⁶ Potter and Johns 1992: 16.

⁹⁸⁷ Potter and Johns 1992: 18.

⁹⁸⁸ Potter and Johns 1992: 23, 25.

⁹⁸⁹ de la Bédoyère 2013: 132.

The goal of this chapter section is to lay out a clear picture of how Roman and indigenous forms of urbanism interacted, so that we can more clearly understand the circumstances under which new, stone public baths were introduced into pre-existing urban spaces (which will be explored in sections two and three of this chapter). More specifically, this first section will help clarify whether those responsible for erecting new Roman urban architectural forms (like temples, fora, basilica, but especially the baths) reorganized existing indigenous urban or Roman military spaces or worked within pre-existing urban landscapes.

Unfortunately, trying to piece together the type and/or extent of pre-conquest occupation is often difficult to do. For example, geophysical survey at Caistor St Edmund has revealed numerous circular and sub-circular features, which J. A. Davis has suggested are evidence of an *oppidum* on the site of the later Roman town. Bowden and Bescody, however, note that these structures could alternatively belong to different time periods, coming from numerous smaller successive settlements rather than one large *oppidum*. The evidence for Iron Age occupation in the various towns studied in this section include: ditches and ramparts (Verulamium, Canterbury, Silchester), pre-Roman coins and coin moulds (Verulamium, Caistor St Edmund, Silchester), circular huts and other Iron Age structures (Canterbury, Leicester, Caistor St Edmund), Iron Age pottery (Leicester), and metalworking (Caistor St Edmund).

Following Rome's entry into Spain and Gallia Narbonensis in the second century BCE, Roman interest in Britain began to build. Attracted to Britain's rich and important sources of tin, traders and merchants from Italy had likely already visited the island before any official Roman presence, ⁹⁹¹ which was marked by Julius Caesar's campaign of 55-54 BCE. While achieving no permanent occupation, Caesar did initiate contact with some of the tribal leaders, and both the

⁹⁹⁰ Bowden and Bescody 2008: 332.

⁹⁹¹ Potter and Johns 1992: 13.

literary and archeological evidence suggests that some of these British tribes continued to build ties with Rome in the Augustan period. Despite this earlier interest, however, Rome's annexation of Britain, which began with Claudius' conquest in 43 CE, came relatively late in the West. This is perhaps not surprising given its isolation and distance from Italy. Roman urban development on the island began soon after conquest in the second half of the first century CE, although less for the sake of creating identifiably Roman towns than for creating administrative centres. It is to this period that the British coloniae like Lincoln (set up in 92 CE) belong, along with a number of the most common type of administrative towns in Roman Britain, the civitas centres. The largest of these acted as the principal seats of their client tribes and, along with the coloniae, would soon have "...temples, courts of justice, and dwelling-houses" (all in the Roman style), along with a regular grid layout. So Municipia were not prevalent in Britain. York may have been granted this distinction before being made a colonia in 237 CE, so and St Albans (Verulamium) is called a municipium by Tacitus, so the it is unclear when it was granted this status.

⁹⁹² Shotter 2004: 14; Potter and Johns 1992: 31. The presence of the Italian merchants and creation of *civitates* (client tribes) already by the Caesarian period in Britain meant that Roman culture had been known and to varying degrees embraced before Claudius' armies arrived. Furthermore, it has been suggested that much of the adoption of Roman culture in the area, rather than a product of any Romanizing scheme on the part of the Romans, was driven by wealthy British families, whose wealth was supplemented by the creation of markets by the incoming Roman army (de la Bédoyère 2013: 132; Shotter 2004: 53, 57, 68).

⁹⁹³ Shotter 2004: 59. It is important to stress here that the adoption of Roman urbanism was not constant across Britain any more than it was between the provinces. South 0and eastern Britain, where Roman influence was felt first and strongest, would increasingly become removed from direct military control and be left to the administration of the *civitates*. The area would consequently see a decrease in the number of military establishments and the erection or restructuring of a number of Romano-British towns (Shotter 2004: 53, 58). The highland zone (north and west Britain) on the other hand, would remain under more direct military control, seeing much less urban development past the size of the *vici*, though *civitates* were eventually established here as well (Shotter 2004: 62, 72).

⁹⁹⁴ Tactius *Agricola* 21.

⁹⁹⁵ Although *municipia* did exist in Britain, and St. Albans may have held the title at some point, the identities of others are not known (Shotter 2004: 60, 61).

⁹⁹⁶ Ottaway 1993: 64.

⁹⁹⁷ Annales 14.33.

⁹⁹⁸ Rogers 2013a: 6969. R. Niblett suggests that St. Albans may have become a *municipium* in the Flavian period at the same time that the forum and basilica were erected (Niblett and Thompson 2005: 150; Niblett 1993: 86).

Town planning and subsequent development of towns and cities in Roman Britain could look quite different, depending on the city's prior settlement history, which varied greatly within the provinces. Some Roman towns, including those at Canterbury, St Albans, and Silchester, were built overtop of pre-existing indigenous settlements. Others, like Colchester, the Upper City of Lincoln, Wroxeter, and Exeter, developed out of earlier legionary fortress on the site (to be discussed in Section III of this chapter). Still others (the Lower city at Lincoln and possibly Leicester, Caistor St Edmund, and London) evolved from the *vicus* or *canabae* which grew up around a fort in the area, while Caistor St Edmund, London, Chichester, York, and Caerwent had unique (and sometimes obscure) histories of development that do not fit neatly in any of these categories.

The process by which the town planners (whether local or foreign) dealt with pre-existing indigenous urban spaces when establishing Roman-style towns (planned regular street grid, Roman stone public buildings, rectangular houses/structures, etc.) is difficult to uncover, as Iron Age Britain is still not well understood, and (as has already been discussed above) evidence of pre-conquest settlement is in most cases not extensive. It is also difficult to determine whether the impetus and funding behind the development or initial laying out of a Roman town came from the local elite (as has been suggested by Millett)⁹⁹⁹ or the Roman military in the area (as suggested by Frere), 1000 although the reality is likely a mixture of both to varying degrees at different places. 1001

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⁹⁹⁹ Millett 1990: 69ff.

¹⁰⁰⁰ Frere 1987: 230ff. This uncertainty mainly applies to towns with *civitas* capital status or lower; the provincial seats of the governor and *colonia* likely had more direct involvement from the Roman authorities and the colonists who settled there.

¹⁰⁰¹ See Blagg 1980.

Belgic ditches and timber dwellings dating to the late Iron Age (perhaps around 15 BCE)¹⁰⁰² have been found below buildings in the later *civitas* capital of Canterbury (*Duroverum* Cantiacorum). 1003 As no evidence for defences have been found, however, it may not have been a true oppidum, but rather a satellite settlement of the nearby Bigbury hillfort. 1004 The original excavators of the site suggested that this Iron Age settlement continued until it was cleared away and replaced by 'Roman' buildings in the Flavian period. 1005 Many of the Iron Age features and the earliest Roman structures, however, were separated from the later Flavian ones by a level of "grey loam", which has been interpreted as evidence of a break in occupation and suggests that the path from oppidum to civitas capital was not straightforward. 1006 The picture is further complicated by the evidence of Claudian military occupation (ditches, a rampart, and possibly a timber building) on the site, although the type and extent are unclear. 1007 Therefore, although some Iron Age buildings did survive the change-over to town, they and the earliest Roman (military?) buildings were abandoned and replaced in the Flavian period. This Flavian construction seems to have been largely limited to timber, and it is not until the late first to early second century that the street system and the major public buildings were laid out (including the temple precinct, theatre, and baths). 1008

At the time of the conquest, the site of what would become Roman St Albans (*Verulamium*) was not a "green field site." There is evidence of pre-Roman occupation; the

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¹⁰⁰² Andrews 2001: 33.

¹⁰⁰³ Blockley 1980a: 403. Canterbury was probably the first *civitas* capital in Britain (Wacher 2015: 189).

¹⁰⁰⁴ Cleary 1997: 492. Wacher disagrees and thinks that the Iron Age occupation of Canterbury was an *oppidum* that rivalled the ones at Silchester or Verulamium in size (2015: 190).

¹⁰⁰⁵ Andrews 2001: 34; Cleary 1997: 492.

¹⁰⁰⁶ Cleary 1997: 492.

¹⁰⁰⁷ Wacher 2015: 189; Blockley 1980a: 403.

¹⁰⁰⁸ Wacher 2015: 198; Blockley et al. 1995: 169; Bennett 1984: 50. It is unclear where the funding and impetus for this and the earlier Flavian building came from (local or Roman military) (Andrews 2001: 34). ¹⁰⁰⁹ Niblett 1993: 82.

town appears to have at least partially overlain an Iron Age *oppidum*, which Rosalind Niblett suggests could have influenced the layout of the Roman town, although she proposes no specific theories about the transition. The city appears to have been laid out in two stages. The initial street grid, dating as early as the late 40s or early 50s CE, 1011 was destroyed in the Boudican revolt (along with the timber buildings), 1012 but it was rebuilt along the original street grid and then extended south of the forum-basilica complex (including *insula* III) during the Flavian period. 1013 The town would become a *municipium* (Tacitus calls it one), 1014 although the exact time when it gained this distinction is not certain. The Flavian period has been suggested as a possibility, coinciding with the erection of the forum and basilica. 1015 In the areas so far excavated at least, land originally used for private buildings (e.g., workshops or houses) was never later commandeered for public building, and similarly, areas dedicated to certain trades in the pre-Flavian period seem to have remained unchanged throughout the life of the town. Niblett and Thompson suggests that this may be evidence for careful pre-Flavian planning, and that some plots and *insulae* were reserved for public building. 1016

The site of Roman Silchester (*Calleva Artebatum*) originally held an Iron Age *oppidum* (founded in the late first century BCE), complete with round houses, rectangular and subrectangular structures, an earthen rampart, and ditches. ¹⁰¹⁷ There is also evidence that this *oppidum* had formal planning: under the site of the Forum-Basilica and in *insula* IX (northwest

¹⁰¹⁰ Niblett 1993: 82. No concrete evidence of a fort has as a of yet been found, however, *insulae* XVII and XIX (the area between the forum and the river to the east) have been suggested as possible fort sites (Niblett et al. 2006: 63; Niblett 1993: 82).

¹⁰¹¹ Rogers 2013a: 6970-6971. The early date suggests that the grid was laid out immediately upon the founding of the town.

¹⁰¹² Sorrell 1976: 38.

¹⁰¹³ Niblett et al. 2006: 53.

¹⁰¹⁴ Annales 14.33.

¹⁰¹⁵ Niblett 1993: 86.

¹⁰¹⁶ Niblett and Thompson 2005: 62.

¹⁰¹⁷ Wacher 2015: 271; Fulford 2013: 1274.

of the forum *insula*) excavation has revealed rectilinear streets on a northeast/southwest by northwest/southeast orientation dating to the late first century BCE. 1018 Following the conquest of Britain in 43 CE, this oppidum developed into a planned town, the civitas capital of the Atrebates, possibly under the control of the client king Cogidubnus. 1019 A number of timber buildings from this earliest phase have been identified, whose orientation suggests that the Iron Age streets and lanes remained in use during the earliest years of the town. 1020 Following the destruction of this early town, likely during the Boudican revolts, 1021 there was a total reorganization of the settlement. A new, more regular street grid, largely orientated northsouth/east-west street, was imposed sometime in the Flavian period, 1022 or early second century CE. 1023 Despite the new gird, many pre-or early Flavian buildings (including the amphitheatre, baths, and some houses) continued on the alignment of the older grid, often with their frontages re-built to accommodate the newer streets. 1024 The eastern road that led from the eastern Forum-Basilica entrance, however, does not adhere to the over-all orientation of the town streets, but instead seems to share a similar (if not the same) orientation of the aforementioned pre- or early Flavian buildings. This deviation, combined with the rather awkward situation of the forum, suggests a somewhat piecemeal approach to the town-planning of Silchester. 1025

The military phase at Silchester is obscure. There is evidence of a possible mid-late 40s military *principia* that seems to have continued in use until it was replaced by a Flavian

¹⁰¹⁸ Fulford 2013: 1274; Fulford 1993: 16.

¹⁰¹⁹ Fulford 2013: 1274; Wacher 2015: 273.

¹⁰²⁰ Fulford et al. 2012: 11.

¹⁰²¹ Fulford et al. 2012: 1.

¹⁰²² Fulford 2013: 1275. George Boon suggests around 80 CE (1974: 53).

¹⁰²³ Wacher 2015: 274; Fulford 1993: 23, 29; Fox 1948: 177.

¹⁰²⁴ Fulford 2013: 1275; Fox 1948: 177.

¹⁰²⁵ Wacher 2015: 277.

basilica. ¹⁰²⁶ The rest of the evidence for a military presence on the site is only circumstantial. ¹⁰²⁷ John Wacher suggests that this evidence may instead indicate the presence of the Roman-style army of a client king rather than a true Roman garrison, which may better explain why military occupation of the site continued in conjunction with the development of the civilian town. ¹⁰²⁸ The uncertainty surrounding the type and extend of the military presence at Silchester makes it impossible to comment on the extent to which it may have influenced the later town's planning or organization.

When surveyors and architects chose to build directly over a decommissioned military settlement in Britain, the shift in urban form involved at least the partial retention of the fortress defences, street-plan, and even sometimes plot boundaries. We see evidence of this in the city plans of the *coloniae* Colchester (*Colonia Claudia Victricensis Camulodunensium*), and partially at Lincoln (*Lindum*) where the lines of the fortress' *via principalis*, *via praetoria*, and *via decumana* were kept, while other streets were changed, resulting in irregular *insula* sizes in the upper city. Fortress streets also provided the basic framework of the early town layout in two *civitas* capitals, Wroxeter (*Viroconium Cornoviorum*) and Exeter (*Isca Dunmoniorum*), the early towns of which grew up within the legionary defences. 1031

Sometimes, the early city plans and street systems that were adapted straight from the legionary fortress were later partially re-planned or expanded. This re-planning was often linked to destruction caused by the Boudican revolts, as at Colchester where the re-laying of a new street grid over that which had been originally taken from the eastern half of the old fortress was

¹⁰²⁶ Fulford 2013: 1275; Wacher 2015: 273-274.

¹⁰²⁷ Wacher 2015: 272; Fulford 1993: 20, 21; Sebastian Sommer 1986: 642-3; Boon 1974: 55.

¹⁰²⁸ Wacher 2015: 274.

¹⁰²⁹ Jones 2003b: 60.

¹⁰³⁰ Webster 1993: 50.

¹⁰³¹ Wacher 2015: 339; Bidwell 1980: chronological summary, 47.

on a slightly different alignment than those kept from the western half of the fortress.¹⁰³²
Alternatively, the expansion of a town could result in a change in the city plan. Once again, at
Colchester, the city was expanded east outside of the fortress and over and beyond what had been
the fort annex, likely by 60 CE. Here too, new streets were laid out on a slightly different
alignment to those that came before them (i.e., those originally part of the fortress and western
half of the *colonia*).¹⁰³³ This new area was almost completely given over to public buildings.¹⁰³⁴
While the *insulae* in the southeast of Wroxeter (those originating in the fortress) retained their
street alignment, those to the west and north were slightly irregular and seem to have been part of
the re-planning and expansion of the early timber city (possibly occasioned by Hadrian's visit to
Britain in 122 CE),¹⁰³⁵ which essentially doubled the size of the early city that had been built
after the fortress was demolished.¹⁰³⁶ This expansion involved the movement west of the most
important civic buildings (forum, basilica, baths, etc.) to keep them centrally located within the
expanded town. At Exeter (*Isca Dumnoniorum*) the re-planning took place upon the conferment
of *civitas* status.¹⁰³⁷

The conversion from fortress to *colonia* or *civitas* capital often entailed the complete or partial dismantling of military buildings by the army as part of their departure process. For example, in the *coloniae* of Lincoln, ¹⁰³⁹ and possibly Colchester, ¹⁰⁴⁰ as well as the *civitas* capital

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¹⁰³² The destruction caused by the Boudican revolt did not always result in a complete re-planning. For example, although there is evidence of Boudican burning and destruction throughout much of Colchester, the legionary street grid survived and it seems some buildings were rebuilt on their original plots (Crummy 1998: 37; 1999: 91, 92).

¹⁰³³ Crummy 1977: 76; 1985: 78; 1988: 24; 1998: 34; 1999: 89; Wacher 2015: 114, 116.

¹⁰³⁴ Crummy 1988: 42; 1993: 34. Planning of buildings was secondary to the street system. The buildings were made to fit the street plan rather than vice versa (Crummy 1985: 80).

¹⁰³⁵ Barker et al. 1997: 1; White and Barker 1998: 72; Barker 1985: 109.

¹⁰³⁶ Webster 1988: 140; 1993: 51.

¹⁰³⁷ Fox 1973: 12; Henderson 1988: 110.

¹⁰³⁸ Jones 1988: 154.

¹⁰³⁹ Crummy 1977: 90, 7.

¹⁰⁴⁰ Crummy 1977: 85, supporting Dunnett 1971: 98-100.

Exeter,¹⁰⁴¹ the forum and basilica were built over the area of the dismantled *principia*. There are, however, some examples of fortress buildings being adapted for civilian use in the earliest phases of civilian occupation. This seems to have been the case at Colchester, where some structures remained in use until they were destroyed during the Boudican revolts,¹⁰⁴² while others were later replaced during a re-planning of the town.¹⁰⁴³

Sometimes, rather than the fortress itself, a Roman town developed out of the civilian settlement outside its walls, known as the *canabae* or *vicus*. The so-called "Lower City" of Lincoln developed out of the *canabae* (the extramural settlement) on the hillside south of the fortress, later *colonia*. ¹⁰⁴⁴ It is thought that the initial *vicus* structures largely lined street leading from the south fortress gate to the river crossing. Once Lincoln had become a *colonia* (late first century CE), these structures were at least partially replaced on the lower southern slope of the hill by public buildings and monuments (e.g., the baths and a fountain), which now fronted onto the main north-south street. Settlement on the hillside continued to expand at this time, especially to the east and west (mostly residential) and the lower town showed signs of formal planning by the mid second century CE. ¹⁰⁴⁵

The situation in Leicester is slightly different. Below the civic centre of Roman Leicester (*Ratae Corieltauvorum*) there is evidence, including Gallo-Belgic and local pottery, coinage, and a round house from the first century BCE, of an important late Iron Age (ca. first century CE) settlement, thought to measure about ten hectares. The name *Ratae* (derived from the Celtic word for rampart or bank) might imply that this was a defended *oppidum*; however, aside from signs of

¹⁰⁴¹ Bidwell 1980: 49.

¹⁰⁴² Wacher 2015: 114.

¹⁰⁴³ Crummy 1999: 89.

Cruminy 1999. 89.

¹⁰⁴⁴ Wacher 2015: 142.

¹⁰⁴⁵ Jones 2003b: 82.

a possible boundary ditch, there is not enough evidence to be certain. Evidence of a fort in the area is also scanty and comprises only a small section of military ditch and military equipment. Ooper and Buckley suggest that there was a small fortlet (60 m²) between the two branches of the Soar River to the southwest of the later town. Wacher meanwhile suggests that the original indigenous occupation on the site of the later town was first subsumed into the *vicus* or *canabae* of the (not yet identified) fort that he believes was built in the area post-conquest, before developing into a town.

The initial phase of civilian settlement (post-conquest, pre-Flavian) on the east bank of the Soar River demonstrates no evidence of a street grid, and occupation appears to have followed a more organic pattern of growth. For example, four phases of timber buildings have been found in the western area of the later town, all bearing different alignments, none of which conform to the later street grid. The laying of the street plan is thought to coincide with the town's status change to *civitas* capital towards the end of the first century CE. The major public buildings were not built immediately upon the laying of the street grid. Construction on the forum, basilica, and baths, for example, did not begin to be erected until later in the second century, perhaps spurned by Hadrian's visit to Britain in 122 CE. The Wacher and others have suggested that the *insula* in which the forum was eventually built was held in reserve for it for a few decades. Also, during the second century, several of the late Flavian timber buildings were destroyed and replaced by stone structures on different alignments.

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¹⁰⁴⁶ Wacher 2015: 343; Cooper and Buckley 2004: 51.

¹⁰⁴⁷ Cooper and Buckley 2004: 52, 53; 2003: 31-33.

¹⁰⁴⁸ Wacher 2015: 343.

¹⁰⁴⁹ Cooper and Buckley 2004: 53.

¹⁰⁵⁰ Cooper and Buckley 2004: 53; 2003: 33. Wacher places it around 100 CE (2015: 345).

¹⁰⁵¹ Blank 1971: 14.

¹⁰⁵² Wacher 2015: 345; Cooper and Buckley 2004: 54.

Caistor St Edmund (*Venta Icenorum*) was, according to Ptolemy (23.11), the only *civitas* capital of the Iceni. ¹⁰⁵³ How this *civitas* capital got its start is still unclear but it is generally held that it was founded after the Boudican revolt when the Romans took over the territory of the Iceni. What lies below the town is still up for debate. It has been suggested that the town lies on top of a large Iron Age settlement, possibly an *oppidum*. ¹⁰⁵⁴ While there is certainly evidence (including metalworks, coins, and circular features) to suggest Iron Age use of the site, whether or not there was a large full-time settlement here is still unclear. Meanwhile, it is possible that the circular features actually belonged to the *vicus* of a Neronian-Flavian fort northeast of the site. More excavation is needed to settle this question and to establish the date and nature of these circular structures. ¹⁰⁵⁵ Whatever the associations of these buildings, geophysical survey indicates that they were truncated by Roman streets and therefore not in use by the time of the laying of the street grid. ¹⁰⁵⁶ This grid was originally dated by Francis Haverfield (followed by Atkinson) to the Flavian period. It now seems more likely, however, that it dates to later than 90 CE and was not laid out all at one time. ¹⁰⁵⁷

The final four Roman-British towns included in this survey, Chichester, York, London, and Caerwent, have more obscure occupation histories. At Chichester (*Noviomagus*) is there is little evidence of pre-conquest occupation. Military barracks have been identified under the civilian town; however, it is not know what type of military establishment was here or how or if it influenced the planning of the later settlement. The initial civilian town was formed as the centre of government for the client king Tiberius Claudius Cogidubnus in 44 or 45 CE, and it is

¹⁰⁵³ Bowden and Bescody 2008: 325.

¹⁰⁵⁴ Davies 1999: 35-36.

¹⁰⁵⁵ Bowden and Bescody 2008: 332-3.

¹⁰⁵⁶ Bowden and Bescody 2008: 332.

¹⁰⁵⁷ Bowden 2013: 153; 2012: 33.

¹⁰⁵⁸ Down 1988: 8; Down and Rule 1971: 1.

then that the town really begins to take shape and grow. ¹⁰⁵⁹ It continues to do so rapidly for the next three decades (late 50s to late 80s). ¹⁰⁶⁰ Following the death of Cogidubnus (some-time between 70 and 85 CE), the town became a *civitas* capital and some re-planning seems to have occurred. It is then that the Roman-style street grid and principle public buildings were constructed. ¹⁰⁶¹

There is also no evidence of a pre-Roman indigenous settlement at York, ¹⁰⁶² but by the second century CE, there were three areas of Roman occupation in the area now covered by modern York: the legionary fortress on the northeast side of the Ouse River, a civilian settlement (often referred to as the *canabae*) that grew up around it to the east and south, and the town (eventual *colonia*) across the river on the southwest bank. The area that the *colonia* would later occupy was initially kept largely clear in the late first and early second centuries CE save for some possible timber buildings in the area of the later Old Station baths (see Chapter One). ¹⁰⁶³ By the mid-second century there is evidence of more widespread town settlement, including property demarcation, the creation of drainage ditches and streets, and the erection of buildings. ¹⁰⁶⁴ Once the town was settled, it grew steadily through both expansion and the reorganization of areas already settled. The town does not, however, seem to have been conceptualized nor built to a single master plan. ¹⁰⁶⁵ Growth and re-organization continued during the late second and third centuries, and included the metalling of roads and the erection of new masonry public buildings. ¹⁰⁶⁶ The third century changes may be linked to the town's change in

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¹⁰⁵⁹ Down 1988: 16, 18, 20.

¹⁰⁶⁰ Down and Rule 1971: 2.

¹⁰⁶¹ Wacher 2015: 259; Down 1988: 16, 28, 29.

¹⁰⁶² Ottaway 1999: 138.

¹⁰⁶³ Ottaway 1999: 140. These timber buildings may represent the initial locus on the early settlement (Ottaway 2004: 72)

¹⁰⁶⁴ McComish 2015: 5; Ottaway 2004: 72; 1999: 140.

¹⁰⁶⁵ Ottaway 2004: 73; 1999: 141.

¹⁰⁶⁶ Addyman 1989: 250.

status: it become the seat of the governor in Britannia Inferior in the early third century and then later a *colonia (colonia Eboracensis*) in 237 CE. ¹⁰⁶⁷

Founded in approximately 50 CE, ¹⁰⁶⁸ London seemingly originated as an economic centre and merchant settlement, possibly the *vicus* of a fort which has not yet been located. ¹⁰⁶⁹ This initial settlement seems to have been clustered along the main east-west road opposite the river crossing at London Bridge, and included an open gravelled area, later occupied by the forum. In the five or so years before the Boudican revolts, this *vicus* or merchant settlement seems to have been subsumed into a small, although somewhat irregular grid of streets with many of the earliest buildings replaced. ¹⁰⁷⁰ Following the destruction of this early town during Boudican revolt, the town was re-planned on a larger scale. By 100 CE, the town had all the buildings associated with Roman public life: forum, temples, bathhouse, amphitheatre, and harbour. ¹⁰⁷¹ Some irregularity in the street system suggests that the town expanded in stages, ¹⁰⁷² growing rapidly to become the largest city in Roman Britain. ¹⁰⁷³ By the late first or early second century it had become the seat of the provincial governor, ¹⁰⁷⁴ at which point it is assumed to have become the seat of the governor. ¹⁰⁷⁵

Finally, at the site that would become Roman Caerwent, there is no real evidence of any sort of military activity. Nor is there any evidence of a pre-existing indigenous town. Instead, the

¹⁰⁶⁷ McComish 2015: 4; Wacher 2015: 167; Ottaway 1999: 140; 1993: 64; Addyman 1989: 245.

¹⁰⁶⁸ Wacher 2015: 88, Milne 1993: 12.

¹⁰⁶⁹ Wacher 2015: 83, 90; Rogers 2013b: 4144. P. Rowsome suggests that it may have been a *conventus civium Romanorum*, a "settlement of Roman citizens, a particular type of community which had no defined legal status or organization and which accompanied the expansion of the empire in search of profits (1999: 271). The location of an early fort (i.e., before 50 CE), if there was one, is not known (Wacher 2015: 88; Rogers 2013b: 4144).

¹⁰⁷⁰ Wacher 2015: 90.

¹⁰⁷¹ Wacher 2015: 90, Milne 1993: 12, 13.

¹⁰⁷² Wacher 2015: 94; Rowsome 1999: 271.

¹⁰⁷³ Rogers 2013b: 4144.

¹⁰⁷⁴ Wacher 2015: 85, 94.

¹⁰⁷⁵ Rogers 2013b: 4144; Milne 1993: 13.

town seems to have developed out a group of civilian workshops (including pottery), which generated a regional market that later was developed into a civilian settlement, a market town for the Silures (*Venta Silurum*), around 75-80 CE.¹⁰⁷⁶ The earliest timber building dates to ca. 100 CE,¹⁰⁷⁷ and certain public buildings like the baths and forum were constructed by the early second century. Most construction at this time, however, was concentrated along the main eastwest road and the street grid was not fully established until the beginning of the third century. ¹⁰⁷⁸ It is unknown if Caerwent ever received *civitas* capital status. ¹⁰⁷⁹ If it did, it was likely around the time that the forum was built in the late Trajanic or Hadrianic period. ¹⁰⁸⁰

Discussion:

The Roman towns of Britain had diverse settlement histories. There are, however, a few repeated trends in urban development that occur. For instance, at Canterbury and Silchester (both of which are towns founded over indigenous settlements) some indigenous structures and streets survived the initial transition into the town, only to be replaced at a later stage (see below). It is possible something similar happened at St Albans, where the town seems to have partially overlain an Iron Age *oppidum*. ¹⁰⁸¹ A partial retention of what came before is also seen in the towns that developed out of a legionary fortress. In all towns with this type of settlement history (Colchester, Lincoln, Exeter, and Wroxeter) the military street grid influenced the placement of some streets in the subsequent towns.

On numerous occasions there were at least two phases of Roman occupation following the indigenous occupation of the site. Most commonly (in towns not built over military sites), a

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¹⁰⁷⁶ Webster and Wilson 2003: 219.

¹⁰⁷⁷ Webster and Wilson 2003: 218.

¹⁰⁷⁸ Brewer 1993: 59.

¹⁰⁷⁹ Brewer 1993: 56, 59, 61.

¹⁰⁸⁰ Rogers 2013c: 6960; Webster and Wilson 2003: 216.

¹⁰⁸¹ Niblett 1993: 82.

less organized, mostly timber settlement (either indigenous, Roman, or a mix) was followed by a more formally planned settlement, with a planned street grid and masonry construction. For example, at Canterbury, the initial town building dates to the Flavian period, while the formal street plan and masonry construction belongs to the late first or early second century CE. At St Albans, the initial town layout dates to the early 40s or 50s, and the rebuilding (after the destruction caused by the Boudican revolt) of the town dates to the Flavian period. Silchester also had a pre-Boudican planned town that was replaced by a more regular street grid and public buildings in the Flavian period or early second century. Leicester saw its post-conquest, pre-Flavian civilian settlement replaced by a more formal street plan at the end of the first century; however, the erection of its public buildings came later in the second century CE. In London, the pre-Boudican settlement (with an irregular grid of streets) was re-planned following its destruction, with its major public buildings in place by 100 CE, while Chichester had two periods of growth, the initial under the client King Tiberius Claudius and the second in the late first century when the street grid was laid out and public buildings were erected. Similarly, in some cases towns with a military background also underwent a later (at least partially) replanned following their initial transition from fortress to civilian settlement because of a destruction (Colchester) or expansion (Wroxeter) of the earlier town. This re-planning involved the dismantling of earlier (often timber) structures.

In many cases, growth was gradual and street grids were not always laid out in one stage. At York, Caerwent, Silchester, London, and particularly at Caistor St Edmund, there is evidence of more piecemeal and long-term development rather than one original comprehensive town plan. Similarly, the erection of Roman-style pubic and private buildings did not always

immediately follow the laying of a new grid plan. At Leicester, for example, the period between the laying out the street grid and the building of the baths was about 45 years. 1082

Four possible main causes or forces behind the initial replanning or redevelopment that took place at all the sites included in this chapter can be identified: the destruction of the town following the Boudican revolts (St Albans, Silchester, Colchester, and London), 1083 the expansion of the town (Colchester, Wroxeter, and Lower Lincoln), the granting of a new legal status (Exeter, Lower Lincoln, Leicester, Chichester, and possibly St Albans), and even in some cases (Leicester and Wroxeter) Hadrian's visit to Britain in 122 CE may have been an initial incentive to restructure.

Finally, in many of the towns considered in Roman Britain, it seems to be the case that the streets and *insulae* were not densely packed with buildings. For example, the geophysical survey carried out by D. Bescoby over Caistor St Edmund, clearly indicates that most of the masonry buildings (which date to the second half of the second century CE) were concentrated on the main east—west axial street (this included many of the known public buildings of the town). Occupation seemingly became progressively less dense towards the south and the north-west. Canterbury, Silchester, and Leicester also display a more scattered layout of buildings. One notable exception to this rule is Caerwent, where the *insulae* were both smaller and more densely populated than is seen in other Romano-British towns. 1085

¹⁰⁸² For dating of the baths see Wacher 2015: 346-7 and Kenyon 1948: 31.

¹⁰⁸³ At Colchester (Crummy 1999: 91, 92; 1998: 37) and St. Albans (Niblett et al. 2006: 53), streets and buildings were often rebuilt in the same place as their destroyed predecessors.

¹⁰⁸⁴ Bowden 2013: 152.

¹⁰⁸⁵ Wacher 2015: 388; Frere 1949: 156.

Section II – The integration of Roman baths into *ex novo* Roman towns or towns with preexisting indigenous settlement

The archaeological evidence shows that town plans in Roman Britain evolved in stages, gradually replacing the original indigenous or military settlements, which could influence the layout of the later town. The first Roman towns that replaced the indigenous or military settlements were often timber-built with and introduction of a street grid and masonry buildings coming at a later stage as part of larger re-developments of the town, sometimes following a destruction or expansion of the town or a change of the urban centre or town status. How were baths integrated into these developing plans? Were baths one of the first public buildings to be introduced as part of a larger public construction project or a restructuring of the town, or were they inserted later as an individual addition? Was land set aside for them, as sometimes was the case for other public buildings (e.g., as has been suggested for Leicester and St Albans, see above), or were earlier more obscure pre-Roman or Roman structures removed to make room for these stone buildings? This section will answer these questions though a careful analysis of the history of construction of the civilian baths at nine Roman-British towns. As discussed above, the towns had a range of urban development histories including those with evidence of pre-existing indigenous settlements (Canterbury, St Albans, Chichester, Silchester, Leicester, and Caerwent), those which may have developed out of a vicus/canabae (Leicester and Caistor St Edmund), and those with evidence of more obscure land occupation (York, London, and Caerwent). The integration of Roman baths into towns that developed out of forts/fortresses will be discussed separately in the third section of this chapter.

Following the organization used throughout this work, the towns included in the following survey are arranged by status, and then alphabetically, starting with the provincial

seats of the governor, York and London, and ending with *civitas* capital at St Albans. All the towns included in the survey have some sort of Rome appointed status (with the possible exception of Caerwent, whose *civitas* capital designation is still uncertain). The towns discussed below were selected both for their ability to answer the questions outlined above concerning the integration of Roman-style baths and on the basis of the availability of excavation records about the history of construction of their civilian Roman baths and what lay below them.

Seats of the governor

Colonia Eboracensis (modern York)

York was home to four possible baths, ¹⁰⁸⁶ but there is only evidence for two of these facilities about their integration into the town. The large baths near the modern Air-Raid Station were built in an area that seems to have been largely kept clear of buildings during initial military occupation of this area. ¹⁰⁸⁷ It is not until the founding of the town (across the Ouse River from the fortress) that this area is built up. ¹⁰⁸⁸ The exact date of initial construction of this bathhouse is not clear; however, they, along with other timber buildings in the area, are on a slightly different alignment to the rest of the *colonia*, suggesting that they predate the reorganization of the town when it was given its new colonial status, likely under Caracalla. ¹⁰⁸⁹

Across the river, a second set of baths was erected, likely during the late second or early third century re-planning of the area south and southeast of the fortress. These baths likely served the community that grew up around the fortress and continued to live there even after the

¹⁰⁸⁶ The integration of the Fetter Lane Baths and those near the Queen's Hotel is not clear. Their identification as public baths is also not secure (see Chapter One for more information).

¹⁰⁸⁷ The area was not completely devoid of pre-town building; however, there were some first century CE timber buildings of unknown function in the general vicinity of the later baths (Ottaway 1999: 140).

¹⁰⁸⁸ Ottaway 2004: 72.

founding of the town proper to the southwest. Unfortunately, this area has not been extensively excavated, and so it is not known what lay below the baths. There is, however, evidence of a grain warehouse, pottery/tile production, and timber structures that date to the late first or early second centuries CE, which have been found in the vicinity of the later baths. 1090

Londinium (modern London)

At London, the late first century CE Huggin Hill Baths were built on virgin soil, terraced into Thames River escarpment. The area on which the baths were erected, southwest of the main hub of the city, appears to have been vacant of urban settlement until the late first or early second century CE. It is then that these baths and a large public complex approximately 65 m to the west were constructed, all of which seem to be part of the same public building program. ¹⁰⁹¹
Rowsome has suggested that this area of town may have been set aside for public use. ¹⁰⁹² If this were the case, it would suggest some degree of urban planning for civic buildings.

Civitas Capitals

Calleva (modern Silchester)

As was discussed in Chapter One, the baths at Silchester were built on a different alignment than the later Flavian street system used in the majority of the town. This has been taken to suggest that the baths were one of the earliest structures erected. Running along its eastern side is what G.C. Boon calls a "Belgic enceinte" (i.e., a defensive enclosure or fortification), which may have influenced the orientation of the bath building. This may

¹⁰⁹⁰ Ottaway 1999: 140.

¹⁰⁹¹ Rowsome 1999: 272; Williams 1993: xi, 29, 35. Measurement taken from Williams 1993: fig. 6.

¹⁰⁹² Rowsome 1999: 272.

¹⁰⁹³ Fulford et al. 2018: 1; Boon 1974: 47.

¹⁰⁹⁴ Boon 1957: 101-102.

suggest that this area once held Iron Age structures (like the Iron Age round houses, rectangular structures, and ditches found elsewhere under Roman Silchester). ¹⁰⁹⁵ Excavation, however, has not been able to reveal much of what lay beneath the pre-Flavian civilian baths, but there are traces of a north-south-aligned brick-built foundation (possibly dating to as early as the Claudian period) beneath the Neronian phase of the bath's palaestra, which the bath's excavators have hypothesized is either a water lifting device or latrine of an earlier bathhouse, although its pubic or private function is unclear. ¹⁰⁹⁶

Duroverum Cantiacorum (modern Canterbury)

At Canterbury, there were at least two periods of occupation before the baths were erected in the late first to early second century CE. ¹⁰⁹⁷ In the earliest levels, there is evidence of curving ditches and circular huts of a Belgic date. Sometime around 70-80 CE, a layer of 'grey loam' sealed these Belgic levels and timber buildings were erected shortly afterwards. These structures were then demolished in preparation for major building operations in the area, including the baths, and the laying of a road bordered by a series of timber buildings to the south and a Flavian portico to the north. This portico would border part of the bath's palaestra in its earliest phase. ¹⁰⁹⁸

Noviomagus Reg(i)norum (modern Chichester)

Although excavators found what they identified as timber-built military barracks on the site of the later town, the type and extent of the military presence at Chichester are unknown, as

¹⁰⁹⁵ Wacher 2015: 271; Fulford 2013: 1274. Recent excavations in 2018 have now found Late Iron Age Inner Earthwork ditch to the west of the baths (Fulford et al. 2018: 6).

¹⁰⁹⁶ Fulford et al. 2019: 2-3.

¹⁰⁹⁷ Blockley et al. (1995: 169) suggest a date sometime between 100-110 CE.

¹⁰⁹⁸ Blockley et al. 1995: 27, 84; 169; Blockley 1987: 17; Blockley 1980a: 403

is the location of the military bathhouse (if one existed). 1099 Some scholars such as Magilton have questioned whether there was a military presence here at all. 1100 The fourth century baths at Chichester overlay an earlier bathhouse, which may date to the late first century CE. 1101 Under these early baths, there are multiple phases of timber buildings. The first three may be military in character. 1102 The fourth is industrial, possibly worker's huts associated with the construction of the bathhouse. 1103

Ratae Corieltauvorum (modern Leicester)

The *insula* in which the baths are located seems to have contained Belgic houses in the pre-Roman period, and timber shops and houses in the early Roman period. 1104 These buildings were demolished and a cobbled surface laid over the top, apparently in anticipation for the construction of a public building complex, which included the forum, basilica, and baths. 1105 This has led some scholars to suggest that the area was reserved for these public buildings for several decades (after the laying out of the town around end of the first century CE), and the area may have simply acted as an open market, while buildings funds were being collected. 1106

Venta Icenorum (modern Caistor St Edmund)

As already discussed above, excavation has not yet clearly revealed what type of settlement or occupation existed under the post-Boudican civitas capital of Caistor St Edmund (Venta Icenorum). At present there is also no evidence of any structures below the early second

¹⁰⁹⁹ Down 1988: 8, 18; Wacher 2015: 259, 261-2.

¹¹⁰⁰ Magilton 2003: 162.

Mosaics in the early baths are very similar to some found in the palace at Fishbourne. This has led some to suggest that the same artist was responsible for the mosaics in both buildings (Wacher 2015: 264; Down 1988: 36), ¹¹⁰² Wacher 2015: 259, 262; Down 1988: 8; Down 1978: 140.

¹¹⁰³ Dawkes and Hart 2017: 43; Down 1978: 140-1.

¹¹⁰⁴ Wacher 2015: 343, 345. Kenyon (1948: 11-1) dates them to between the Vespasianic to Trajanic period.

¹¹⁰⁵ Cooper and Buckley 2004: 53, 54; Hebditch and Mellor 1973: 7.

¹¹⁰⁶ Wacher 2015: 345; Cooper and Buckley 2004: 54; 2003: 33.

century civilian bathhouse, leading Wacher to suggest that the site of the baths was left in reserve for them from the beginning of the town planning.¹¹⁰⁷

Venta Silurum (modern Caerwent)

The town of Caerwent developed out of a group of civilian workshops-turned-market rather than an indigenous or military settlement. As this town grew, many of its public buildings were built on unoccupied land. This is certainly the case for the baths, as there is no evidence of any structures below them. These baths were part of a major construction phase within the city that took place during the Trajanic/Hadrianic period, when building activity was concentrated along the main east-west road. Interestingly, the baths may pre-date the forum and basilic that lay to the north of the baths by a few decades, although there may have been an earlier forum/basilica complex on the same site.

Verulamium (modern St Albans)

The nature of the occupation in *insula* XIX at St Albans in the Claudian period (before the baths were built there) is still poorly understood. Excavators suggested that a ditch in the *insula* may have come from some sort of military occupation; however, this has not been proven. What lay directly below the *insula* XIX baths of St Albans is unknown.

The baths located in *insula* III in St Albans, which date to the end of the first or beginning of the second century CE, were built over a gravel surface. Whether this was originally part of Watling Street or an open courtyard, however, is uncertain. The fact that all of the residential or trade areas in the town (that have been excavated so far) seem to have been retained

¹¹⁰⁷ Wacher 2015: 245.

¹¹⁰⁸ Brewer 1993: 59.

¹¹⁰⁹ Wacher 2015: 379.

¹¹¹⁰ Niblett et al. 2006: 63; Niblett and Thompson 2005: 148.

¹¹¹¹ Niblett et al. 2006: 58.

throughout the life of the town (and not replaced by public buildings), may suggest that the settlement was carefully planned in the pre-Flavian period and some areas were left open for future public buildings, ¹¹¹² perhaps including this bath.

Discussion:

In the introduction to this chapter section, I set out two questions that I wanted to answer about bath integration in Roman Britain: 1) were baths one of the first public buildings to be introduced or were they inserted later? and 2) was land set aside for these bathing facilities or were earlier pre-Roman or Roman structures removed to make room for these stone buildings?

Regarding the date at which baths were inserted into the urban fabric of towns in Roman Britain, the survey of the settlements discussed above suggest that Roman baths were not usually planned for or constructed during the initial settling of a town, during which period construction projects were typically limited to timber. Instead, bathing facilities were usually inserted later, often alongside other stone-built public buildings and spaces (e.g., forum, basilica, theatre, etc.). Moreover, their construction often occurred during a general re-planning of the town or an area within it (to be discussed further below). We have evidence of this delayed construction of baths at London, 1113 for the *canabae* baths of York, 1114 at Canterbury, 1115 at Leicester, 1116 at Caerwent, 1117 and possibly at Chichester. 1118 St Albans may be an exception to this rule as it is

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¹¹¹² Niblett and Thompson 2005: 62.

¹¹¹³ London's Huggin Hills Baths were part of a larger public building project to the west of the main settlement (Rowsome 1999: 272; Williams 1993: xi, 29, 35).

¹¹¹⁴ These baths were part of a re-planning of the area to the south and southeast of the fortress which may have been account of a change in legal status (Ottaway 1999: 140).

¹¹¹⁵ Two periods of occupation preceded the erection of the baths, which were built around the same time as Canterbury's street grid (late first or early second century CE) (Blockley et al. 1995: 169).

¹¹¹⁶ The baths at Leicester, Antonine in date, were part of an extended rebuilding of the town centre (which included a public building program) possibly incited by Hadrian's visit to Britain in 122 CE (Blank 1971: 14).

¹¹¹⁷ The baths were part of a larger Trajanic/Hadrianic building program along the main east-west road (Brewer 1993: 59).

¹¹¹⁸ Three phases of timber buildings underlay the first century phase of the baths (Dawkes and Hart 2017: 43; Wacher 2015: 259, 262; Down 1988: 8; Down 1978: 140-1).

possible that land was set aside for public buildings (including the baths) right from the establishment of this settlement, although the baths here may still have been part of the same building program as the forum and basilica.¹¹¹⁹

Generally, when the baths were part of a larger re-organization or public building program, their construction took place after the laying of the street grid and the building of the forum and basilica complex, sometimes with a delay. The best example of the delay that could occur between the establishment of the street grid and the construction of the baths is found at Leicester, where the laying of the town street grid and the forum date to end of the first century CE, 1120 while the baths were not built until approximately 145-160. 1121 This delay may have been to the result of financial constraints. Not all baths, however, post-date other public building projects in the towns. For example, the alignment of Silchester's baths suggests that they were erected earlier than the Flavian street grid, 1122 and the baths of Caerwent may predate the construction of the forum by a couple of decades. 1123 Nevertheless, these examples appear to be exceptions to the general trend.

Regarding whether or not land was set aside for the construction of public baths in the cities surveyed above, scholars have put forward the possibility that empty (or emptied land in the case of Leicester) land may have been reserved for the construction of public buildings, including baths at four sites (St Albans, Leicester, and less securely Caistor St Edmund and London). At St Albans, there is evidence that the town was carefully planned in the pre-Flavian

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¹¹¹⁹ Niblett (1993: 86) has suggested that at St. Albans the granting of *municipium* status in the Flavian could have been connected to the erection of the forum and basilica. It seems possible then that the baths, erected at the end of the first or beginning of the second century CE may have been part of the same building program.

¹¹²⁰ Cooper and Buckley 2004: 53; 2003: 33. Wacher places it around 100 CE (2015: 345).

¹¹²¹ Wacher 2015: 346-7 and Kenyon 1948: 31.

¹¹²² Boon 1974: 47.

¹¹²³ Wacher 2015: 379.

Roman period timber shops and houses were demolished and the resulting open space left open for a public building complex that included the baths. 1125 The lack of evidence of any structures below the baths at Caistor St Edmund led Wacher to suggest that land had been left in reserve for them. 1126 Alternatively, the position of these baths on the edge of town and the fact that the street grid was not laid out all at once may suggest that the land which the baths were built was simply devoid of previous occupation and not purposefully set aside for the baths. Similarly, Rowsome has suggested that the entire area occupied by Huggin Hill Baths and other public buildings to the southwest of London's town centre was set aside for public use; 1127 however, it is also possible that this land was not purposefully set aside and was instead simply empty land on the edge of the settlement available for urban development. At Caerwent, there is similarly no evidence of any structures under the bath building and the placement of these baths within the town centre (near the forum) may suggest that land was reserved for their construction.

Conversely, in four of the nine cities surveyed (Canterbury, Leicester, Chichester and possible St Albans), Iron Age and early Roman structures were demolished to make way for the baths. Interestingly, in two of those three cases (Canterbury and Leicester) these structures were removed so that the baths could be erected near the public centre of the town, near the forum and basilica. At Chichester, earlier timber industrial structures were replaced by the bath in late first century, around the time the town became a *civitas* capital and some re-planning seems to have occurred. The bath builders at St Albans potentially expropriated space from one of the major

¹¹²⁴ Niblett and Thompson 2005: 62.

¹¹²⁵ Cooper and Buckley 2004: 53, 54; Hebditch and Mellor 1973: 7.

¹¹²⁶ Wacher 2015: 245.

¹¹²⁷ Rowsome 1999: 272.

roads of the town (Watling Street) to make room for one set of baths in *insula* III. 1128 As discussed above, in all four of these instances the change in the use of space coincided with a more general re-configuring of the town.

Section III – The integration of baths into towns with a pre-existing military settlement

In his discussion of the archaeological remains beneath the *colonia* baths at Lincoln, Michael J. Jones acknowledged that "[t]he relationship between [fortress] baths... and their replacements or equivalents in the *colonia* period needs further exploration." This section seeks to answer that call through a careful analysis of the history of construction of the civilian baths at two *civitas* capitals and two *coloniae* that developed out or overtop of military settlements (namely fortresses) in Roman Britain. These sites include Exeter, Wroxeter, Lincoln, and Colchester. The goal is to determine what happened to the legionary baths of Britain when the army moved on and their fortresses were replaced by cities and towns. Did the legionary baths continue to be used during the life of the town, and if so, for how long? In those instances where the legionary baths were dismantled or destroyed, did those responsible for erecting the new civilian baths choose to build them on the same site as the legionary baths in order to make use of pre-existing bath infrastructure or building materials? And finally, is there any evidence for the conversion of military baths for civilian use?

It soon became clear, however, that the number of Romano-British sites for which even some of these questions could be answered is, unfortunately, very small. There are two main difficulties. The first challenge is recognizing the survival and use of military structures into the

¹¹²⁸ Niblett et al. 2006: 58.

¹¹²⁹ Jones 2003a: 42.

civilian period, especially when we are lacking precise foundation dates for many Romano-British towns. The second compounding obstacle is that, among the Romano-British towns included in this survey, the location of the legionary baths has only been securely established in Exeter. The location of the military baths at Colchester and Wroxeter have only been conjectured, while the other towns included in this study have not yet presented any conclusive evidence to suggest where the military baths lay or whether or not they survived the conversion of fortress to civilian settlement. At present, therefore, we cannot identify with certainty the continued use of any military baths by civilians in the any of the cities or towns of Roman Britain. Fortunately, there is more information about the types of buildings that lay beneath the later civilian baths at Exeter, Wroxeter, Lincoln, and Colchester.

Before turning to the case studies, it is necessary to provide a brief discussion of the military bathing culture in Britain before the appearance of these civilian baths. Like many of the amenities of Roman towns and cities across the empire, the introduction of Roman-style baths and bathing culture accompanied Roman military occupation of the island. At present, only seventeen military baths have been located in Britain, the earliest of which come from the Neronian period. The legionary bathhouses, like those at Exeter and Chester, shared most (if not all) of the core elements and extra amenities with civilian public baths including a changing room (*apodyterium*), cold room (*frigidarium*), warm room (*tepidarium*), and hot room (*caldarium*). Some of the grandest had more than one of the aforementioned rooms along with sweat rooms (*laconica*), an exercise yard (*palaestra*), 1134 and sometimes even indoor and outdoor

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¹¹³⁰ Colchester is the exception. It was founded about 10 years before the Boudican revolt, in 49 CE (Tacitus *Annales* 12.32; Crummy 1999: 95).

¹¹³¹ Black 1992, 120-122; Crummy 1999, 93; 2019.

¹¹³² Webster 2002, 7, fig. 1.7; 1988, 125; White and Barker 1998: 74.

¹¹³³ Revell 2007: 231; Rook 2002: 39-61. This number grows by two if the baths at Wroxeter and another possible bath building at Gloucester prove to be legionary baths.

¹¹³⁴ For example, Exeter, Chester, and Caerleon (Revell 2007: 231).

swimming pools (*natationes*). ¹¹³⁵ They also could be built on a scale rivalling their civilian counterparts. The fortress baths at Exeter, for example, stretched over 4000 m², ¹¹³⁶ which is similar in size to the civilian baths at Augusta Raurica in Germania Superior (4230 m²), Faesulae in Italy (4000 m²), and those at Wroxeter in Britain (4550 m²). ¹¹³⁷ They were also often located in the same types of areas as civilian baths (i.e., near other important civic buildings, in the centre of the settlement, or near gates). ¹¹³⁸ Such monumentality, combined with the type of architectural and decorative elaboration seen for example, in the legionary baths at Caerleon, and the amount of space in the legionary baths for activities other than bathing, suggests that the "experience of the legionary soldier was clearly part of the same social discourse as that of the civilian population of Italy and the provinces." ¹¹³⁹ That is to say, a legionary soldier could expect a similar experience to his civilian counterpart when using a legionary bath since it had an architectural layout that prioritized social interaction and the preservation of social groups and hierarchies, just like its civilian equivalent. ¹¹⁴⁰

Seven of the fourteen Romano-British towns surveyed in this chapter have evidence of a military presence beneath them, although in three (Chichester, Silchester, and Canterbury), excavations have not yet revealed the type or extent of military occupation on the site, and so

¹¹³⁵ As at Chester and Caerleon (Revell 2007: 234).

¹¹³⁶ Bidwell 1980: 24.

¹¹³⁷ Nielsen 1993a: 9, 20, 21.

¹¹³⁸ As has been well documented, legionary fortresses had very similar plans, with assigned positions for specific buildings, such as the *principia* (the headquarters building). Of the eleven know fortresses in Britain, the location of the legionary baths is known at seven of them. Within these seven there are two typical locations for baths in the legionary fortresses of Britain: close to the *principia* (York, Exeter, Usk, Jones 2003a: 42, Caerleon, and possibly Wroxeter, Webster 2002: 7, fig. 1.7; 1988: 125, and outside the fortress defence walls, often near a gate (Chester). The presence of a legionary bath in the annex outside the defence walls is conjectured in both Colchester (Crummy 1999: 93) and Wroxeter (White and Barker 1998: 74, 75, 84). Scholars have noted that baths outside the defence walls is more typical of auxiliary forts than in legionary fortresses (Jones 2003a: 42; Johnson 1983: 215-21).

¹¹³⁹ Revell 2007: 235.

¹¹⁴⁰ Revell 2007: 232-233, 235, 236.

they have been included above, in the second section of this chapter. ¹¹⁴¹ The four remaining settlements developed out of a legionary fortress. In many of these cases, the transition from fortress into town involved at least a partial retention of the street grid, and sometimes even plot boundaries. ¹¹⁴² The military buildings were in most cases "systematically dismantled" ¹¹⁴³ as the army was departing or destroyed later, either during the Boudican revolts or when the site was converted into a *colonia* or *civitas* capital. Exeter is the only site where the location of both the legionary baths and the later civilian baths have been definitively identified. We will start our discussion there, before moving onto those sites where the location of the military baths is only conjectured or not known at all, beginning with the other *civitas* capitals, followed by the *coloniae*. In these later cases, it is impossible to comment on the continued use of legionary baths into the civilian period; however, by looking at the buildings beneath the later civilian baths, something can still be said about the integration of these buildings into the pre-existing urban landscape and their relationship (or rather lack there of) to earlier military architecture.

Civitas Capitals

Isca Dumnoniorum (modern Exeter)

Sometime between 80 and 90 CE, following the full withdrawal of the garrison (originally from *Legio II Augusta*) and the change over from fortress to *civitas* capital, Exeter's *principia* was converted into the forum, and part of the legionary baths behind it (which, although left standing, showed signs of abandonment) was replaced by the town's basilica.¹¹⁴⁴

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¹¹⁴¹ There is also some evidence of military activity at Silchester and Leicester, but it is at present, to scanty to say if these sites were once home to a permanent military fort/fortress.

¹¹⁴² This appears to be the case for Colchester (Crummy 1999: 91, 92; 1993: 37; 1977: 90).

¹¹⁴³ Jones 1988: 154.

¹¹⁴⁴ Bidwell 2021: 163; 1979: 67, 86-87; Henderson 1988: 109-111, fig. 5.12.

The new civilian baths were later built sometime after ca. 90 CE, ¹¹⁴⁵ and they were located 15 m to the southeast of the south corner of the town's forum, roughly 80 m away from the position of the earlier legionary baths. ¹¹⁴⁶ Although the new baths were presumably close enough to take advantage of the aqueduct used by the legionary baths, Henderson states that the fortress aqueduct went out of use at the same time as the older baths, and so it could not have been used by the new civilian bathing facility. Instead, in 100/101 CE, a new aqueduct was built to bring water to the forum (and presumably to the baths) from a different source than the military aqueduct. ¹¹⁴⁷

Viroconium (modern Wroxeter)

Excavations under the palaestra of the civilian baths at Wroxeter and the *macellum* to its southwest (both part of *insula* 5) have uncovered a complex sequence of buildings, related to the pre-legionary, legionary, and post-legionary activity on the site. ¹¹⁴⁸ During the military period (57-90 CE), successive phases of timber barrack blocks, centurial quarters, mess halls, a store building, and a stone structure filled the *insula* of the later baths. ¹¹⁴⁹ Around 90 CE, timber framed buildings, which Webster identifies as military and Ellis argues are more likely civilian shops with living quarters, were built along Watling Street on the footings of an earlier stone military structure. ¹¹⁵⁰ These timber structures were eventually replaced by the *macellum* and public baths during the Hadrianic reorganization of the town centre. ¹¹⁵¹

¹¹⁴⁵ Henderson 1988: 115.

¹¹⁴⁶ Measurements taken from Wacher 2015: fig. 151.

¹¹⁴⁷ The legionary aqueduct came into the fortress from the northeast, while the new civilian aqueduct drew from a spring in the Longbrook Valley north of the site (Henderson 1988: 115).

¹¹⁴⁸ Webster 2002: 14-15, 31-63; Ellis 2000: 11-78.

¹¹⁴⁹ Webster 2002: 31-63; 1988: 131-132, 136, figs. 6.12-13.

¹¹⁵⁰ Webster 2002: 49-63; Ellis 2000: xii.

¹¹⁵¹ Ellis 2000: xii, 11, 47; Webster 1988: 131, 137, 139.

The public baths lay directly across the street and east of a set of earlier baths that some scholars believe may have been begun as a military bathing facility, ¹¹⁵² built by the final legion to occupy the site, the *Legio XX Valeria Victrix*. Alternatively, it is possible that this earlier set of baths were civilian built, begun soon after the military withdrew. These early baths were left unfinished around the end of the first century CE and the area was then replaced by the town's forum by 129-130 CE. ¹¹⁵³ It is possible that construction of the new public baths was begun around the same time as the forum. ¹¹⁵⁴ Barker *et al.*, however, has suggested that the baths were actually started earlier (around 120 CE), coinciding with Hadrian's visit to Britain, ¹¹⁵⁵ and that the forum construction may have caused a delay in the completion of the baths, ¹¹⁵⁶ which were only finished in the Antonine period. ¹¹⁵⁷

These newer civilian baths also lay directly northwest of another masonry structure south of the *principia*, which Graham Webster has hypothesized was the legionary baths rather than those under the forum, although no archaeological excavation has yet been conducted to test his theory. Regardless of whether White and Barker or Webster are correct in their identification

¹¹⁵² i.e., White and Barker 1998: 74. They note that the plan of these baths has its closest parallels in military bathhouses. If correct, this would put the legionary baths just outside the western gate in the annex of the fortress (Webster 1993: 50), which although not usual is not completely unprecedented. The legionary bathhouse at Colchester is also thought to have lain outside the legionary defenses in the annex as well (Crummy 1988: 37). A strike against this interpretation is the dating for the initiation construction for the bath put forth by the bath's original excavator, Donald Atkinson. He concluded that "the evidence of coins and the samian agree in implying a date very near AD 90, for the abandonment of the area, and, so, for the beginning of the construction of the Baths." (Atkinson 1942: 23). While it is possible that the legion began building the baths right before they left, and that this may explain its semi-finished state, there is still the issue of the pre-bath abandonment of the site seen by Atkinson. ¹¹⁵³ Webster 1988: 140; Barker et al. 1997: 1, 221; Atkinson 1942: 179. Recently, Michael Fulford (2022: 154) has questioned whether the baths were left in an unfinished state.

¹¹⁵⁴ Ellis 2000: xii, 11, 47.

¹¹⁵⁵ Historia Augusta Vita Hadriani 11.2.

¹¹⁵⁶ Barker et al. 1997: 221.

¹¹⁵⁷ Ellis 2000: 47.

¹¹⁵⁸ 2002: 7, fig. 1.7; 1988: 125, 137. Webster further speculates that the earliest civic phase of Wroxeter may have reused stone from the legionary bathhouse (1993: 55; 1988: 137).

the legionary baths, it is clear that the Hadrianic/Antonine public baths were not constructed over top of or out of them.

Coloniae

Camulodunum/Colonia Claudia Victricensis Camulodunensium (modern Colchester)

Excavations by the Colchester Archaeological Trust at Colchester have revealed that the civilian bathhouse south of the temple of Claudius was not built on virgin ground, but instead atop another masonry structure. The Trust posited that this could be an earlier bathhouse, serving the 20th legion that was responsible for building and occupying the fortress at Colchester. At present, the excavators have not precisely dated this masonry building, noting only that it is pre-Boudican and was destroyed during the Boudican revolt. 1159 If they are correct in their hypothesis, it would mean that the legionary baths continued to be used in the earliest phase of the *colonia*. 1160 It is, however, equally possible that this structure was an early civilian bath, newly built after the military pulled out of Colchester in 49 CE. More excavation is needed to clarify this point, which unfortunately, may prove difficult, as the baths lie below a locally listed 15th century building that is being restored into a brewery. 1161

If, however, further excavation does reveal that the building under the civilian baths is not another bathhouse (legionary or otherwise), there is another pre-Boudican structure in the northwest corner of insula 38 (just south of insula 30) which could have been a predecessor of the later *insula* 30 baths 1162 and perhaps even the legionary bathhouse. Either possibility, if

¹¹⁵⁹ Crummy 2019.

¹¹⁶⁰ In fact, Philip Crummy, director and principal archaeologist of the Colchester Archaeological Trust has previously suggested that "any legionary baths would almost certainly have been kept for civilian use in the new colony" (1988: 37), despite that this was not the case at Exeter. ¹¹⁶¹ Jefford 2019.

¹¹⁶² Black 1992: 120-122; Crummy 1991: 10-11.

correct, would place the legionary baths within the military annex of the fortress. A third possibility (insula 20) has been proposed as the site of a bathhouse, which would put it right inside the legionary fortress defences. 1163 Crummy, however, has called this possibility "a bit of a long shot."1164

Lindum (modern Lincoln)

The presence of legionary-period timber structures beneath parts of the second century civilian baths, located in the upper city of the colonia, suggests that these later baths did not occupy the same position as the earlier legionary baths, which have yet to be identified. 1165 Moreover, although Jones has postulated that the earlier brick courses incorporated into the civilian bath's walls could have belonged to the legionary period, he also acknowledges that the presence of Samian ware and vessel glass dating to the late first or early second century CE at the site of the baths suggests that the structure was erected after the change over from fortress to colonia. 1166 The choice to place the bath in the northeastern section of the city could have been influenced by the position of a roughly contemporary water tank adjacent to the baths, although it is not clear which came first. 1167

Discussion:

From the short survey above, it is clear that those responsible for planning and building civilian baths in new towns that developed out of military settlements chose not to convert or build over top of earlier legionary baths (with Colchester being the only possible exception). The

¹¹⁶³ Benfield and Garrod 1992: 33.

¹¹⁶⁵ Jones 2003a: 42; Jones 2003b: 80.

¹¹⁶⁶ Jones 2003b: 80; 2002: 71.

¹¹⁶⁷ Jones 2003b: 61, 79.

question then becomes, why not? Afterall, legionary bathhouses shared most (if not all) of the core elements and extra amenities with civilian public baths and could be built on a scale rivalling their civilian counterparts (as discussed above). Military baths could have, therefore, provided a comparable social experience for civilian bathers. They were also often located in the same types of areas as civilian baths (i.e., near other public buildings in the centre of the settlement or near gates). Moreover, civic buildings were costly, and although baths were important, they were typically not the first public building to be erected (especially if the town was low on funds following the removal of the army). The continued use of a legionary bathing structure would have also presumably cut down on the time during which the new town was without public baths. It was, therefore, financially expedient to re-use legionary baths, at least until the money could be raised to fund a new one, a process that, as was demonstrated above in Section II of this chapter, typically happened in Roman Britain within a few decades of the town grid being laid out, and often as part of a larger building program.

1168

There are a few possible reasons why those responsible for erecting public baths might choose a new site for these facilities rather than re-using elements of or building on the same site as the earlier military baths, as was done elsewhere in the empire, such as at Vindonissa in Switzerland. One possible explanation is the complete or partial destruction of the legionary baths, either through intentional destruction, to such an extent that they were no longer useable. As discussed in above, the abandonment of a military fortress was usually anticipated by the complete or partial systematic dismantling of military buildings by the army as part of their

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¹¹⁶⁸ The longest time (which can be firmly dated) between the laying out of a city plan and the installation of the baths was approximately 45 years at Leicester. For dating of the baths see Wacher 2015: 346-7 and Kenyon 1948: 31

¹¹⁶⁹ Hartmann 1986: 110-15.

departure process.¹¹⁷⁰ It is therefore possible that the military baths of these sites were included in the dismantling process, although as previously mentioned, Exeter is a notable exception as the baths there seem to have been left standing.¹¹⁷¹

Alternatively, a long enough gap between the military leaving and the erection of civic buildings, including a new bathhouse, could have caused the legionary baths, if left standing by the army, to decay to such an extent that they were no longer usable or easily convertible for civilian use. Unfortunately, both types of destruction are hard to evaluate fully because of the paucity of extant legionary baths from Romano-British towns. At Wroxeter, however, M. Fulford has suggested that subsidence may have contributed to the abandonment of the early baths, which were later overlaid by the forum. 1172

While the purposeful dismantling or the dilapidation of legionary baths may explain why these facilities did not continue to be used after the withdrawal of the army, neither explanation clarifies why the communities of Roman Britain seem to have favoured building completely new baths in new locations rather than rebuilding the legionary baths, or at the very least reusing the same location to take advantage of any pre-existing infrastructure, including the water supply systems. The reason for this preference for new buildings in new locations may have been financial.

When it came time to acquire a set of public baths for civilian use, the local community was faced with the difficulty of paying for these important, yet costly, civic structures. While it may seem like conversion is the most financially expedient choice, as we have just discussed,

¹¹⁷⁰ Jones 1988: 154.

¹¹⁷¹ Henderson 1988: 110.

¹¹⁷² Fulford 2022: 154.

this may not have been possible because of the destruction or decay of the baths. It may then have been more cost effective to use another site for the baths rather than trying to clean-up and/or rebuild an older one. This preference is clear from the several instances (Wroxeter, Lincoln, and Chichester) where civilian baths were built in locations previously occupied by timber or unsubstantial structures. Such timber-built construction would have been much easier to clear than the masonry rubble from a well-built bathing structure. Funding may also have been a factor in the abandonment of the baths under the forum at Wroxeter. Webster proposes that the town was more in need of a forum than a bath since the inhabitants could still have been using the legionary baths, which he suggests (admittedly, without any firm evidence) continued to be in use into the civilian period. As a result, the community instead devoted their resources to this civic space rather than finishing the baths. 1173

Building afresh would also have given the town a chance to construct baths perfectly suited to their needs. The legionary baths at Exeter, for example, were reduced in size, perhaps to accommodate the smaller garrison that was stationed here sometime after about 65-75 CE, and they were eventually abandoned when the army finally departed in approximately 80 CE. 1174 It is possible that these reduced baths were now ill-suited to the needs of the town, and it was easier to build on a new site rather than renovate the older baths. The layout of the early baths under the forum in Wroxeter, meanwhile, included a very large open-air palaestra, a space which might not have been entirely suitable for British weather. At 52 by 73 m the palaestra was too large to be converted into a covered hall (and therefore be made useful year-round) as is seen in other baths

¹¹⁷³ Webster 1993: 55; 1988: 137. The construction of the second set of baths appears to have been similarly hit by financial struggles. Begun in the 120s, there was a thirty-year hiatus before they were finished (White and Barker 1998: 89).

¹¹⁷⁴ Bidwell 2021: 153; Henderson 1988, 109-110.

in Roman Britain.¹¹⁷⁵ Therefore, as at Exeter, the switch to a new site may have been deemed more financially expedient than trying to rework the unsuitable pre-existing structure.

Another potential reason behind the choice of a new site for civilian baths is that the location of the civic centre of the new town necessitated a shift in the site of the baths. In Roman Britain, like in the rest of the empire, the city centre near the forum was the most popular location for public baths (see Chapters One and Two). Therefore, if the position of the legionary baths did not align with the new centre of the town, this may be another reason for building the civilian baths on a new, more accessible site. For example, in some cases, during the conversion from fortress to town the forum and basilica complex was placed over top of or close to the principia, 1176 as was the case at Exeter. Since the legionary baths were directly behind the principia, however, they too were replaced by the forum-basilica complex. This meant that the new town baths at Exeter could not simply be built over or incorporate elements of the military baths. There was no room for them alongside the forum-basilica complex. Conversely, when the city of Wroxeter was extended west in the Hadrianic period, the civic centre (including the forum, basilica, and macellum) was similarly shifted further west in order to remain central in the new town. 1177 Those responsible for the re-planning of the city evidently decided not to re-use the older legionary baths or their location and instead preferred to keep the new baths close to the other important civic buildings in the new civic centre.

To summarize, while the current evidence does not allow for any conclusions about the continued use of legionary baths into the civilian period in the cities and towns of Roman

¹¹⁷⁵ Webster 1993: 55.

¹¹⁷⁶ This happened at Colchester (Fulford 2022: 153), Lincoln (Crummy 1977: 90, 7), and Exeter (Bidwell 2021: 163; 1980: 49; 1979: 67, 86-87; Henderson 1988: 109-111, fig. 5.12).

^{103, 1980. 49, 1979. 07, 80-87, 1177} Webster 1993: 51.

Britain, it is clear that when civilian baths were introduced into the *colonia* and *civitas* capitals that had developed out of military sites the local communities chose not to convert pre-existing military baths or make use of pre-existing bath infrastructure and locations. Instead, they chose to build these facilities *ex novo* in locations and in a style that best suited their needs. For now, Michael J. Jones' call to clarify the relationship between fortress baths and civilian baths remains unanswered, but this contribution has helped to shed more light on the history of civilian baths at former military sites in Britain as well as the decision-making process behind the placement of these facilities.

Conclusion:

This chapter set out to investigate how the local communities in Roman Britain physically integrated Roman baths into their growing civilian settlements, that is, how the town officials re-worked the pre-existing urban landscape to accommodate these new stone buildings. An additional aim of this chapter was to determine whether or not the towns that developed out of or overtop of military forts/fortresses reused or recycled the earlier legionary baths and the pre-existing bathing infrastructure, after the army withdrew.

This survey of the construction history of the baths in 13 Romano-British towns, along with what originally occupied the land on which they were built, reveals that these bathing facilities were typically not introduced at the very beginning of a town's formal planning, but were introduced later alongside other major building projects that often replaced earlier timber structures and included the introduction of a more regular street grid and other stone Roman-type public buildings (e.g., the forum, basilica, theatre). This trend is seen in civilian settlements that developed over indigenous *oppida* (Canterbury, St Albans, Leicester), *vici/canabae* (York, the lower city of Lincoln), more ephemeral land occupations (London, Caerwent, Chichester), as

well as towns that grew from abandoned legionary forts (Exeter, Wroxeter, Colchester). These public building projects were initiated for a variety of reasons, including the destruction of the earlier town during the Boudican revolts (St Albans, Colchester), a change in town status (Leicester, Exeter, the lower city of Lincoln, and possibly St Albans), the expansion of the town (Colchester, Wroxeter), or perhaps even a visit from the emperor (Leicester, Colchester, Wroxeter).

In some cases, it appears that bathing facilities were constructed on empty (or emptied) plots of land, which may have been purposefully set aside and reserved for public buildings like baths (such as at Leicester, St Albans, and less securely Caistor St Edmund and London). In situations where the construction of public baths required the expropriation of occupied land, those responsible appear to have selected locations with timber or unsubstantial structures (indigenous, early Roman, and military). We see evidence of this at Canterbury, Leicester, Chichester, as well as at the post-military sites of Wroxeter and Lincoln. This makes sense as timber was the main building material used in the earliest phases of the towns, and also such structures would have been easier and more cost effective to remove than more substantial stone-built structures.

This chapter has also demonstrated that, with the possible exception of Colchester, those responsible for erecting civilian baths in new towns that developed out of legionary forts/fortresses in Roman Britain did not modify legionary baths for civilian use or make use of the pre-existing bath infrastructure or locations. Instead, they generally started afresh both in structure and in their choice of location. The reasons for the decision to build these facilities afresh likely included the purposeful dismantling or natural destruction of the legionary baths after the army left, financial expediency (as it may have been more cost efficient to start afresh

rather than to repair), the ability to build baths perfectly suited to the civilian town/population, an expansion of the town boundaries, and the shift of the placement of the civic centre.

Conclusion

The central goal of this dissertation was to further our understanding local agency in provincial urbanism and city development after Roman annexation using the urban location and integration of Roman baths as a case study. Specifically, I wanted to know where and how Roman baths were integrated into pre-existing (or developing) provincial urban landscapes. Were there preferred urban locations for bath buildings and if so, were these preferences regional or empire-wide? Second, how were these the baths integrated into pre-existing urban frameworks and what were the circumstances surrounding the insertion of these new architectural forms? Finally, in the provinces located in what is modern-day Greece and Britain, where public bathing culture was already established, what did the integration of the Roman baths mean for the pre-existing public Greek baths in Greece and Roman military baths in Britain?

I answered these questions in four chapters. The first two presented the results of a survey of the urban context of public Roman baths of baths in 92 different cities from 11 Roman provinces. Chapter One covered the western Empire and included the Roman provinces of Italia, Tarraconensis, Lusitania, Baetica, and Britannia, while Chapter Two looked at the provinces of Achaea, Macedonia, Epirus, and Crete, Asia, and Lycia and Pamphylia from the East.

With estimates placing the number of public baths (both *publica* and *meritoria*) at over 1000 across the empire, I originally attempted to restrict the surveyed of baths to those which were publicly owned and operated. As was discussed in the dissertation introduction, however, identifying ownership of baths is not always possible, since not all baths have inscriptions telling

us this information.¹¹⁷⁸ Therefore, the survey contains some baths that were open to the public but whose ownership is uncertain. The biggest restriction to the number of baths included was availability (or rather the lack) of published information about the urban location of the baths, including both the zone type as well as the specific buildings that were nearby as well as their construction history and what lay beneath them.

Despite these difficulties, this study has revealed that high traffic arears (especially the forum/agora) were the preferred location for baths across the regions of the empire surveyed. This is not surprising since those faced with the decision of where to put the baths were likely weighing many of the same practical considerations. For instance, baths placed in areas that were already drawing large numbers of people daily, like the forum/agora, entertainment structures (like theatres, free-standing palaestrae/gymnasia, and stadia), and main intersections or thoroughfares would be the most visible and easily accessible to the highest number of potential customers. Gates and harbours too would also have been very visible and accessible locations for not only the permanent inhabitants of the city but also those visiting or leaving. Many baths, especially those in the western provinces, have evidence of private residences nearby, although few bathing facilities can be said to be in predominately residential areas of the town. This pattern may be because the towns typically did not pay to have fully public baths placed in entirely residential areas or because excavations of have not yet completely revealed the residential areas in the majority of the cities and towns included in the surveys. A similar pattern can be seen for commercial/industrial/artisanal structures. The street frontages of baths were often rented out to tabernae and shops/workshops, and yet very few of the baths looked at were

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¹¹⁷⁸ The incomplete excavation of many baths, leaving the full extent of the baths unknown, also adds to this difficulty.

located in commercial or industrial districts, likely for the same reasons listed above for residential areas. The availability of space for these often quite large structures must have also been an important consideration, as would the existence of earlier public baths whether Greek or military. These considerations will be addressed below in the discussion of the Chapters Three and Four results.

A steady supply of water (along with fuel for the *praefurnium*) was crucial for bath function; however, the supply and distribution of water to most of the baths surveyed is poorly understood – few of the baths surveyed were located near known aqueducts, *castella aquae*, cisterns, or wells, although all must have been in common usage. Similarly, natural water sources (streams, rivers, springs, etc.) are especially poorly understood. More data needs to be collected before we can evaluate whether or not water source dictated bath placement or bath location dictated supply. Interestingly, baths are commonly found near other public water users, namely fountains/*nymphaea*, especially in the eastern provinces of what is now western and southern Turkey. This bath placement is not as common in the western provinces, although fewer fountains and *nymphaea* are known from these provinces more generally.

The study was in large part inspired by the work done on Greek bath placement in the Greek world by Monika Trümper. The preferred and repeated locations observed for Roman baths are by and large the same as those observed by Trümper for Greek baths, including near the edge of settlements, in residential/industrial areas, and to a lesser extent *agorai*. This similarity is likely because the builders of Greek baths were dealing with the same considerations (outlined above) as their later counterparts when deciding where to place their bathhouse.

Interestingly, there are very few examples of baths in Greece built in close proximity to one another. This is not the case with Roman baths. In all of the regions surveyed, with the

exception of Roman Britain, there are numerous examples of baths located close one another, and this is especially true in Greece and Turkey. As Trümper has pointed out, an even distribution of baths would reduce competition and ensure relatively equal accessibility to all those living in the different residential neighbourhoods. Why then did community members occasionally chose to build their Roman baths near to one another? Sometimes it was an instance of one bath replacing and older bath (e.g., at Herdonia). Other times, it must be that the area around which the baths were clustered (usually the forum/agora) was busy enough to warrant the building of more than one bathhouse.

In his 1988 monography, Simon Keay notes that in Roman Spain "the *coloniae* had set the example of the Roman way of life, while *municipia* had brought it within reach of many provincials." While this sort of top-down view of Roman influence on provincial urban communities is echoed in other scholarship, since around the 1990s, scholarship has greatly complicated of this idea of a one way flow of ideas and questioned how much of a role veterans played in shaping their communities. How does the integration of baths, a building often seen as synonymous with Roman culture, fit into this developing picture? The survey has made clear that the settlement history and status of the city or town into which Roman-style baths were inserted seems to have had very little impact of bath location. Whether the city had a long urban history or was erected *ex novo*, or was granted a formal status or not, has veterans or Italian colonists or not, one could expect to find a bath in any of the popular areas identified in the survey (including the forum, near gates, other public and religious structures, etc.). Did status or

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¹¹⁷⁹ 1988: 59.

¹¹⁸⁰ For example, Yegül 2000; Blázquez 1964. This type of cause and effect is very hard to detect with our available evidence. For example, at Ostia most of the Roman building types were not erected until after the Roman veterans were settled there, however, it is not possible to say if other smaller communities around Ostia were then inspired by the new colony to make-over their own communities.

¹¹⁸¹ Mattingly 2014; Revell 2010; Webster 2001; Woolf 1998; 1994; Millett 1993. Tsirkim (1989: 137-147) argues that the importance of veterans has been overestimated, although still sees the agents of change a coming from Italy.

settlement history have any impact on the timeline of bath integration? This will be discussed below.

Chapters Three and Four examined how Roman baths were physically integrated into the urban fabric of towns and cities that already had a pre-existing culture of public bathing. Chapter Three looked at the provinces that make up modern-day Greece (and southern Albania) where Greek public baths had been in use for centuries, while Chapter Four looks at Roman Britain where public baths and bathing accompanied military occupation in the first century CE. In both regions, the insertion of the large, Roman-style baths often accompanied a growth in the town often as part of a larger public re-organization program that could (predominately in Roman Britain) include the adoption of a more regular street grid and other Roman building types (like a forum, temples, theatre, etc.). Those responsible for their placement and construction rarely made use of pre-existing bath structures or bathing infrastructure. In Greece, the Greek baths occasionally remained in use even after Roman baths and bathing were introduced (i.e., at Athens, Corinth, Eretria, and Thessaloniki). The continued use of Greek-style bath may help to explain why many of the Roman baths in Greece date so late (second and third century CE) – there was not a pressing need for them earlier. It is also possible, however, that the dating is a result of preservation bias. Not many early baths have been recovered in the archaeological record. In Roman Britain, the military bathhouses appear to have been taken down once the army decamped as part of the dismantling process of the fort and thus those placing the new civilian baths could not make use of these earlier baths. In both regions, the bath builders either looked to new ground (e.g., Megali Porta Baths at Gortyn, or the baths in Leicester) or built over Hellenistic/indigenous buildings. The possible reasons for looking to new ground rather than reusing previous bathing locations were multiple: the availability of space for these typically

larger structures, the expansion of the town or change in town centre, the unsuitability (or unavailability) of earlier bath buildings for conversion, and the improved suitability of newly designed and placed baths. Moreover, in Roman Britain, the buildings cleared for the baths were often timber (Canterbury, Leicester, Chichester, Wroxeter, and Lincoln); such timber structures would have been easier and more cost-effective to remove than more substantial stone-built structures.

The level of impact of status and settlement history on the physical integration of public baths (and the timeline on which this was completed) is very difficult to identify with our current evidence. It seems, however, to have been variable. Thessaloniki, for example, despite becoming the seat of the governor and receiving an influx of Roman settlers in the first century BCE, sees very little change in its urban landscape and does not build Roman-style baths until the late second to early third century. Meanwhile, the colony of Philippi received Roman-style baths very soon after it was granted *colonia* status in 30 BCE. Status also does not seem to have had much of an effect on how fast a city received a bath in Roman Britain with the earliest known civilian baths coming from the civitas capitals of Caerwent and Chichester, not the colonies of Lincoln or York, or the seat of the governor at London. In both provinces, the timeline for integration sems to have been much more directly tied to the availability of space (tied to their settlement history) and finances than status (see conclusions for Chapters 3 and Four).

Faced with many of the same conditions when looking to integrate the Roman-style baths into their pre-existing urban frameworks, the local communities in the regions of modern Britain, the Iberian peninsula, Italy, Greece, and Turkey came to the same conclusions about the best

¹¹⁸² It is, of course, possible, that we are missing earlier examples.

¹¹⁸³ Oulkeroglou 2016: 180, 181).

locations to place their baths: high traffic and highly visible areas, most commonly the forum/agora, but also near other sport/entertainment or civic buildings, as well as religious areas. As the case studies of Greece and Britain showed, such spaces were often at a premium, and thus in many cases the city seems to have waited for the space and funding to become available (often during larger building programs within the town).

Although the number of baths and sites surveyed was large, there were many areas of the empire that were excluded from this study, namely the northern provinces, those to the south, and those in the far east. Moreover, the observations offered in the previous surveys of Chapters One and Two are only preliminary and there is much more to be done with the data presented and the areas left unexplored. For example, this study was not able to include a survey of baths located in modern-day North Africa, but an examination of the integration of baths in this region would be an obvious place to extend this research. Roman baths were typically introduced later here than in other areas of the empire, and as Nielsen points out, 1184 the large baths were typically on the outskirts of cities in North Africa suggesting at the possibility of regional variability that is not reflected in the areas included in this dissertation. Moreover, while Greece and Britain were chosen as case studies for the third and fourth chapters as areas with pre-existing public bathing culture, studies about bath integration into places with different bathing histories would also be beneficial to see if similar trends in urbanism prevailed. Finally, as has been mentioned throughout the dissertation, more work needs to be done on urban water supply and distribution to better understand how much this was reflected in bath placement and integration.

¹¹⁸⁴ 1993a: 85, 91.

Despite these challenges, this study has shown that, when faced with integrating new Roman-style baths, provincial community were choosing the same urban locations for their baths, namely highly visible, accessible, and already frequented places (like the forum, major thoroughfares, and intersections), as well as religious areas and theatres. Many of these locations are the same chosen by the Greeks for their baths. In neither case was the choice of bath placement dictated by the region, status, or settlement history of the town in city in which the baths were integrated. Instead, these locations (along with the circumstances surrounding their integration) were common because the bath builders in both the Greek and Roman worlds were faced with a similar set of conditions – the need for customers and space.

These empire-wide trends, however, do not support the traditional view of top-down imposition of these facilities on provincial populations. Instead, this study has demonstrated that Roman-style baths were carefully inserted into the urban frameworks of these communities in ways that respected their individual urban organization and development, in accordance with local needs, financial resources, and the availability of space. As demonstrated in Chapters Three and Four, large Roman-style baths were often worked into the pre-existing urban landscape during periods of larger urban development. In Roman Greece in particular, the insertion of baths often respected the previous building work, and these facilities were instead often placed in newly created public locations. It was the provincial communities who used these baths, and it was these same communities who made these buildings work for and within their urban framework.

Appendix I

Table 1: Location of Baths in Roman Italy

Location/Building	Total	City	City Status	Bath Name	Bath Date
Forum	19	Augusta Praetoria Salassorum	colonia	Forum Baths	1 st c. CE
		Augusta Praetoria Salassorum	colonia	Grand Baths	2 nd c. CE
		Cosa	colonia	Cosa Bath	early Augustan then post- Hadrianic
		Florentia	colonia	Forum Baths	1 st c. CE
		Cales	colonia and municipium	Central Baths	90-70 BCE
		Fregellae	colonia	Fregellae Baths	later 3 rd c. BCE then 2 nd c. CE
		Ostia	colonia	Forum Baths	Antonine
		Pompeii	colonia	Forum Baths	1 st c. BCE
		Alba Fucens	colonia	Alba Fucens Baths	mid-1 st c. BCE
		Grumentum	colonia	Republican Baths	mid-1 st c. BCE
		Grumentum	colonia	Imperial Baths	mid-1 st c. CE
		Paestum	colonia	Baths of M.T. Venneianus	first half of 3 rd c. CE
		Forum Sempronii	municipium	Grand Baths	early 2 nd c. CE
		Cumae	no status	Forum Baths	Hadrianic
		Vicus Laurentium	no status	Bath Z	mid-2 nd c. CE
		Augustanorum Vicus Laurentium Augustanorum	no status	Forum Baths/ Thermae A	Severan
		Saepinum	no status	Thermae Silvani	end of 1 st c. CE

		Herdonia	no status	Herdonia Baths 1	1 st c. BCE
		Herdonia	no status	Herdonia	early 2 nd c.
				Baths 2	CE
Residential Area*/ Building	19	Cosa*	colonia	Cosa Baths	early Augustan then post Hadrianic
		Fregellae*	colonia	Fregellae Baths	later 3 rd c. BCE then 2 nd c. CE
		Ostia	colonia	Baths of Neptune	Hadrianic- Antonine
		Ostia	colonia	Forum Baths	Antonine
		Pompeii	colonia*	Stabian Baths	4 th /5 th c. BCE
		Pompeii	colonia*	Central Baths	post-62 CE
		Pompeii	colonia*	Suburban	early
				Baths	imperial
		Pompeii	colonia	Forum Baths	1 st c. BCE
		Alba Fucens	colonia	Alba Fucens Baths	mid-1 st c. BCE
		Grumentum	colonia	Republican Baths	mid-1 st c. BCE
		Grumentum	colonia	Imperial Baths	mid-1 st c. CE
		Forum Sempronii	municipium	Grand Baths	early 2 nd c. CE
		Ferento	municipium	Ferento Baths	1 st c. CE (?)
		Herculaneum	municipium	Baths of the Forum	Augustan/ Julio- Claudian
		Herculaneum	municipium	Suburban Baths	Augustan/ Julio- Claudian
		Herculaneum	municipium	Herculaneum Baths	1 st c. CE
		Velia*	municipium	Baths of the Southern District	end of 1 st to 2 nd c.
		Vicus Laurentium Augustanorum	no status	Bath Z	mid-2 nd c. CE

		Vicus Laurentium Augustanorum	no status	Forum Baths/ Thermae A	Severan
Other Sport/Leisure/ Entertainment Structures	17				
a) bath	8	Augusta Praetoria Salassorum	colonia	Forum Baths	1 st c. CE
		Augusta Praetoria Salassorum	colonia	Grand Baths	2 nd c. CE
		Grumentum	colonia	Republican Baths	mid-1 st c. BCE
		Grumentum	colonia	Imperial Baths	mid-1 st c. CE
		Vicus Laurentium Augustanorum	no status	Bath Z	mid-2 nd c. CE
		Vicus Laurentium Augustanorum	no status	Forum Baths/ Thermae A	Severan
		Herdonia	no status	Herdonia Baths 1	1 st c. BCE
		Herdonia	no status	Herdonia Baths 2	early 2 nd c. CE
b) theater	7	Aquileia Cales	colonia colonia and municipium	Great Baths Central Baths	4 th c. CE 90-70 CE
		Florentia	colonia	Terme di piazza Signolia	Hadrianic
		Ostia	colonia	Baths of Neptune	Hadrianic- Antonine
		Ferento	municipium	Ferento Baths	1 st c. CE (?)
		Faesulae	no status	Faesulae Baths	Sullan or Augustan (?)
		Saepinum	no status	Saepinum Baths	2 ^{nd c.} CE
c) palaestra/ gymnasium	1	Herdonia	no status	Herdonia Baths 1	1 st c. BCE
d) amphitheatre e) stadium/circus	1 0	Aquileia	colonia	Great Baths	4 th c. CE
c) stadium encus	<u> </u>				

Gate*/Edge of Settlement	11	Augusta Praetoria Salassorum*	colonia	Grand Baths	2 nd c. CE
		Aquileia*	colonia	Great Baths	4 th c. CE
		Iulia Concordia*	colonia	Iulia Concordia	late 2 nd c. CE
				Baths	
		Florentia	colonia	Florentia Baths 2	late 1 st to early 2 nd c. CE
		Florentia	colonia	Terme di piazza Signolia,	Hadrianic
		Ostia	colonia	Porta Marina Baths	Hadrianic- Antonine
		Pompeii	colonia	Suburban Baths	early imperial
		Forum Sempronii	municipium	Piccole Baths	Augustan (?)
		Forum Sempronii	municipium	Grand Baths	early 2 nd c. CE
		Velia	municipium	Baths of the Southern District	end of 1 st to 2 nd c.
		Saepinum	no status	Saepinum Baths	2 ^{nd c.} CE
	_				
Main Intersection*/ Major thoroughfare	8	Augusta Praetoria Salassorum *	colonia	Grand Baths	2 nd c. CE
		Cosa	colonia	Cosa Baths	Early Augustan then post- Hadrianic
		Florentia	colonia	Forum Baths	1 st c. CE
		Aquinum	municipium and colonia	Central/ Vecciane Baths	late 1 st c. BCE
		Cales	colonia and municipium	Northern Baths	2 nd c. CE
		Pompeii	colonia	Stabian Baths	4 th /5 th c. BCE
		Pompeii	colonia	Central Baths	post-62 CE

		Paestum	colonia	Baths of M.T. Venneianus	first half of 3 rd c. CE
Industrial, Commercial,	9	Ostia	colonia	Baths of the Swimmers	80-90 CE
Artisanal Area*/Structure		Ostia	colonia	Porta Marina Baths	Hadrianic- Antonine
		Ostia	colonia	Baths of Neptune	Hadrianic- Antonine
		Ostia	colonia	Forum Baths	Antonine
		Alba Fucens	colonia	Alba Fucens Baths	mid-1 st c. BCE
		Grumentum	colonia	Republican Baths	mid-1 st c. BCE
		Paestum	colonia	Baths of M.T. Venneianus	first half of 3 rd c. CE
		Ferento	municipium	Ferento Baths	1 st c. CE (?)
		Herculaneum	municipium	Baths of the Forum	Augustan/ Julio- Claudian
	_				
Water Sources	7	T	Ι .	Γ	a set
a) castellum aquae	4	Florentia	colonia	Florentia Baths 2	late 1 st to early 2 nd c. CE
		Paestum	colonia	Baths of M.T. Venneianus	first half of 3 rd c. CE
		Cumae	no status	Forum Baths	Hadrianic
		Saepinum	no status	Saepinum Baths	2 ^{nd c.} CE
b) cistern	3	Cosa	colonia	Cosa Bath	early Augustan then post Hadrianic
		Teate Marrucinorum	municipium and colonia	Teate Baths	mid-1 st c.
		Ferento	municipium	Ferento Baths	1 st c. CE (?)
c) aqueduct	0				
d) natural sources (river/stream/	0				

spring/					
coastline) e) well					
c) wen					
Temple/Sanctuary	7	Ostia	colonia	Baths of the Swimmers	80-90 CE
		Ostia	colonia	Porta Marina Baths	Hadrianic- Antonine
		Pompeii	colonia	Forum Baths	1 st c. BCE
		Alba Fucens	colonia	Alba Fucens Baths	mid-1 st c. BCE
		Paestum	colonia	Baths of M.T. Venneianus	first half of 3 rd c. CE
		Albingaunum	municipium	Albingaunum Baths	1 st c. CE
		Faesulae	no status	Faesulae Baths	Sullan or Augustan (?)
Other Public Buildings/Spaces	5				
a) macellum	2	Alba Fucens	colonia	Alba Fucens Baths	mid-1 st c. BCE
		Paestum	colonia	Baths of M.T. Venneianus	first half of 3 rd c. CE
b) garden/park/ courtyard	2	Paestum	colonia	Baths of M.T. Venneianus	first half of 3 rd c. CE
		Herculaneum	municipium	Herculaneum Baths	1 st c. CE
c) basilica	1	Herculaneum	municipium	Baths of the Forum	Augustan/ Julio- Claudian
d) odeum	0				
e) fountain/ nymphaeum	0				
f) latrine	0				
g) arch/gateway	0				
Centre of Town	1	Cales	colonia and municipium	Central Baths	90-70 CE

Suburban/	1	Albingaunum	municipium	Albingaunum	1 st c. CE
Peri-urban				Baths	
Port/Harbour	1	Albingaunum	municipium	Albingaunum	1 st c. CE
		_	_	Baths	

Table 2: Location of Baths in Roman Spain and Portugal

Location/Building	Total	City	City Status	Bath Name	Bath Date
Forum	20	Emerita Augusta	seat of the governor and colonia	Baños Street Baths	mid-1 st c. CE
		Corduba	seat of the governor, colonia and conventus capital	José Conde Cruz Street Baths	Julio- Claudian
		Barcino	colonia	Plaza of Sant Miguel Baths	early 2 nd c. CE
		Caesaraugusta	colonia	Central/San Juan and San Pedro Street Bath	Augustan
		Carthago Nova	colonia	Forum Baths	Augustan
		Clunia	colonia and conventus capital	Forum Baths	first half of the 1 st c. CE (?)
		Valentia	colonia	Republican Baths	later 2 nd c. BCE
		Emporiae	colonia and municipium	Agora Baths/Baths of the Basilica	Augustan
		Emporiae	colonia and municipium	Forum Baths	1 st c. CE
		Los Bañales	municipium	Los Bañales Bath	mid-to-late 1 st c. CE
		Lucentum	municipium	Baths of Popilio	Augustan or Tiberian
		Lucentum	municipium	Baths of the Wall	mid-1 st c. CE

		Segobriga	municipium	Theatre Baths	late Republican
		Segobriga	municipium	Monumental Baths	Flavian
		Conímbriga	municipium	Conímbriga Baths 1	Augustan then Flavian/ Trajanic
		Baelo Claudia	municipium	Baelo Claudia Baths 1	mid-to-late 1 st c. CE (?)
		Bracara Augusta	conventus capital	Alto da Cividade Baths/ Thermae of Maximinus	early 2 nd c. CE
		Bracara Augusta	conventus capital	Bracara Baths 3	?
		Bracara Augusta	conventus capital	Bracara Baths 4	?
		Mirobriga	no status	East and West Baths	early 2 nd c. CE and mid- to-late 2 nd c. CE
	10				
Residential Area*/ Building	19	Tarraco	seat of the governor and colonia	Apodaca Street Baths/ Public Baths of the Roman Theatre	early imperial
		Emerita	seat of the	Pontezuelas	mid-1 st to 2 nd
		Augusta	governor	Street Baths	c. CE
		Corduba*	seat of the governor, colonia, and conventus capital	Duque de Hornachuelos Street Baths	?
		Barcino	colonia	Plaza of Sant Miguel Baths	early 2 nd c. CE
		Clunia	colonia and conventus capital	Forum Baths	first half of the 1 st c. CE (?)
		Ilici	colonia	West Baths	1 st c. CE (Flavian?)
		Italica*	colonia	Nova Urbs Baths	Hadrianic

	1	A 4		A /	Til i .
		Augusta	municipium	Augusta	Tiberian or
		Bilbilis	7	Bibilis Baths	Claudian
		Emporiae	colonia and	Forum Baths	1 st c. CE
			municipium		
		Los Bañales	municipium	Los Bañales	mid-to-late
				Bath	1 st c. CE
		Lucus Augusti	municipium	Lucus	second half
				Augusti	of the 1 st c.
				Baths	CE
		Segobriga	municipium	Theatre Baths	late
					Republican
		Segobriga	municipium	Monumental Baths	Flavian
		Conímbriga	municipium	Conímbriga Baths 1	Augustan then Flavian/ Trajanic
		Conímbriga *	municipium	Conímbriga Baths 2	Flavian
		Conímbriga *	municipium	Castellum Baths	3 rd c. CE
		Asturica	conventus	Major Baths	mid-1 st c. CE
		Augusta	capital		
		Bracara	conventus	<i>Insula</i> of	2 nd c. CE
		*Augusta	capital	Carvalheiras Baths	
		Baetulo	no status	Clos de la	mid-1 st c.
				Torre Baths	BCE
Main Intersection*/	19	Tarraco	seat of the	Apodaca	early imperial
Major			governor and	Street Baths/	
Thoroughfare			colonia	Public Baths	
				of the Roman	
				Theatre	
		Corduba	seat of the	Concepción	?
			governor,	Street Baths	
			colonia and		
			conventus		
			capital		
		Barcino	colonia	East Port	late 1 st c. CE
				Baths	
		Barcino	colonia	West Port	late 1 st c. CE
				Baths	
		Barcino	colonia	Plaza of Sant	early 2 nd c.
				Miguel Baths	CE
		Caesaraugusta	colonia	Central/San	Augustan
		*		Juan and San	

				Pedro Street	
				Bath	
		Carthago Nova	colonia	Port/Honda	late
		Cartilago 1101a	Colonia	Street Baths	Augustan/
				Street Butils	early
					Tiberian
		Clunia	colonia and	Los Arcos	Tiberian (?)
			conventus	Baths I	
			capital		
		Clunia	colonia and	Los Arcos	end of the 1st
			conventus	Baths II	c. CE (?)
			capital		
		Valentia*	colonia	Republican	later 2 nd c.
				Baths	BCE
		Valentia	colonia	Cabillers	30-40 CE
				Street Baths	
		Valentia	colonia	Salvador	2 nd c. CE
				Street Baths/	
				Baths of the	
				Palace of	
				Benicarló	
		Emporiae	colonia and	Forum Baths	1 st c. CE
			municipium		
		Lucentum	municipium	Baths of	Augustan
		T .		Popilio	111st CE
		Lucentum	municipium	Baths of the Wall	mid-1 st c. CE
		Lucus Augusti	municipium	Lucus	second half
				Augusti	of the 1 st c.
				Baths	CE
		Baelo Claudia	municipium	Baelo	mid-to-late
				Claudia	1 st c. CE (?)
				Baths 1	
		Asturica	conventus	Major Baths	mid-1 st c. CE
		Augusta*	capital		1.04
		Baetulo*	No status	Clos de la	mid-1 st c.
				Torre Baths	BCE
Cata*/Edga of	19	Corduba*	seat of the	Concensión	?
Gate*/Edge of Settlement	19	Corduba	governor,	Concepción Street Baths	·
Settlement			colonia and	Succi Danis	
			conventus		
			capital		
		Barcino*	colonia	East Port	late 1st c. CE
		Duivillo	Colonia	Baths	into 1 c. CL
		I		Danis	<u> </u>

		Barcino*	colonia	West Port	late 1 st c. CE
				Baths	
		Barcino*	colonia	Plaza of Sant	early 2 nd c.
				Miguel Baths	CE
		Caesaraugusta	colonia	Sepulcro	late 1 st c. CE
		*		Street Baths	
		Ilici	colonia	West Baths	1 st c. CE
					(Flavian?)
		Valentia*	colonia	Cabillers	30-40 CE
				Street Baths	
		Valentia*	colonia	Salvador	2 nd c. CE
				Street Baths/	
				Baths of the	
				Palace of	
				Benicarló	
		Emporiae	colonia and	Forum Baths	1 st c. CE
			municipium		
		Arcobriga	municipium	Arcobriga	first half of
				Baths	the 1 st c. CE
		Lucentum	municipium	Baths of	Augustan
				Popilio	
		Lucentum	municipium	Baths of the Wall	mid-1 st c. CE
		Lucus	municipium	Lucus	second half
		Augusti*	1	Augusti	of the 1 st c.
				Baths	CE
		Segobriga	municipium	Theatre Baths	late
			1		Republican
		Conímbriga	municipium	Conímbriga	Augustan
				Baths 1	then Flavian/
					Trajanic
		Conímbriga	municipium	Conímbriga	Flavian
				Baths 2	
		Conímbriga *	municipium	Castellum Baths	3 rd c. CE
		Baelo	municipium	Baelo	mid-to-late
		Claudia*		Claudia	1 st c. CE (?)
		- Junulu		Baths 1	
		Gijón	no status	Campo	late 1 st or
				Valdés Baths	early 2 nd c.
				l dices Build	CE CE
Water Sources	15				
a) natural	10	Caesaraugusta	colonia	Sepulcro	late 1 st c. CE
sources				Street Baths	
				·	-

(river/ stream/ spring/		Clunia	colonia and conventus capital	Los Arcos Baths I	Tiberian (?)
coastline)		Clunia	colonia and conventus capital	Los Arcos Baths II	end of the 1 st c. CE (?)
		Valentia	colonia	Republican Baths	later 2 nd c. BCE
		Valentia	colonia	Cabillers Street Baths	30-40 CE
		Valentia	colonia	Tapinería Street Baths	late 1 st c. CE
		Baelo Claudia	municipium	Baelo Claudia Baths 2	first half of the 2 nd c. CE
		Lucus Augusti	municipium	Miño River Baths	second quarter of the 1 st c. CE
		Gijón	no status	Campo Valdés Baths	late 1 st or early 2 nd c. CE
		Mirobriga	no status	East and West Baths	early 2 nd c. CE and mid- to-late 2 nd c. CE
b) aqueduct	2	Emerita Augusta	seat of the governor	Baths of San Lázaro	2 nd c. CE
		Conímbriga	municipium	Castellum Baths	3 rd c. CE
c) castellum aquae	2	Carthago Nova	colonia	Port/Honda Street Baths	late Augustan/ early Tiberian
		Conímbriga	municipium	Castellum Baths	3 rd c. CE
d) cistern	1	Segobriga	municipium	Monumental Baths	Flavian
e) well	0				
Industrial, Commercial,	13	Barcino	colonia	Plaza of Sant Miguel Baths	early 2 nd c.
Artisanal Area*/ Structure		Valentia	colonia	Republican Baths	later 2 nd c. BCE
		Calagurris Iulia Nassica	типісіріит	Chimney Baths/Baths of the North	Claudian

		Calagurris	municipium	Arnedo Road	?
		Iulia Nassica	municipium	Baths	•
		Emporiae	colonia and municipium	Forum Baths	1 st c. CE
		Lucentum	municipium	Baths of Popilio	Augustan
		Lucentum	municipium	Baths of the Wall	mid-1 st c. CE
		Conímbriga	municipium	Conímbriga Baths 3	3 rd c. CE
		Baelo Claudia	municipium	Baelo Claudia Baths 1	mid-to-late 1 st c. CE (?)
		Baelo Claudia	municipium	Baelo Claudia Baths 2	first half of the 2 nd c. CE
		Bracara Augusta	conventus capital	Insula of Carvalheiras Baths	2 nd c. CE
		Baetulo	no status	Clos de la Torre Baths	mid-1 st c. BCE
		Mirobriga	no status	East and West Baths	early 2 nd c. CE and mid- to-late 2 nd c. CE
Suburban/ Peri-urban	8	Tarraco	seat of the governor and colonia	Sant Miguel St. Baths/ Maritime Baths	end of 2 nd – start of 3 rd c.
	,	Tarraco	seat of the governor and colonia	Apodaca Street Baths/ Public Baths of the Roman Theatre	early imperial
		Barcino	colonia	East Port Baths	late 1 st c. CE
		Barcino	colonia	West Port Baths	late 1 st c. CE
		Emerita	seat of the	Pontezuelas	mid-1 st to 2 nd
		Augusta	governor	Street Baths Roths of Son	c. CE 2 nd c. CE
		Emerita Augusta	seat of the governor	Baths of San Lázaro	Z C. CE
	-	Valentia	colonia	Tapinería Street Baths	late 1 st c. CE

		Calagurris Iulia Nassica	municipium	Arnedo Road Baths	?
Other Sport/Leisure/ Entertainment Structures	7				
a) theatre	4	Tarraco	seat of the governor and colonia	Apodaca Street Baths/ Public Baths of the Roman Theatre	early imperial
		Caesaraugusta	colonia	Central/ San Juan and San Pedro Street Bath	Augustan
		Segobriga	municipium	Theatre Baths	late Republican
		Bracara Augusta	conventus capital	Alto da Cividade Baths/ Thermae of Maximinus	early 2 nd c. CE
b) stadium/ circus	2	Valentia	colonia	Cabillers Street Baths	30-40 CE
		Calagurris Iulia Nassica	municipium	Arnedo Road Baths	?
c) amphi- theatre	1	Segobriga	municipium	Theatre Baths	late Republican
d) palaestra/ gymnasium	0				
e) bath	0				
Port/Harbour	6	Tarraco	seat of the governor and colonia	Sant Miguel St. Baths/ Maritime Baths	end of 2 nd – start of 3 rd c. CE
		Tarraco	seat of the governor and colonia	Apodaca Street Baths/ Public Baths of the Roman Theatre	early imperial
		Barcino	colonia	East Port Baths	late 1 st c. CE
		Barcino	colonia	West Port Baths	late 1 st c. CE

		Carthago Nova Baetulo	no status	Port/Honda Street Baths Hort de les Monges Baths/ Maritime Baths	late Augustan/ early Tiberian early imperial (?)
Temple/Sanctuary	5	Italica	colonia	Nova Urbs Baths	Hadrianic
		Valentia	colonia	Republican Baths	later 2 nd c. BCE
		Lucus Augusti	municipium	Lucus Augusti Baths	second half of the 1 st c. CE
		Segobriga	municipium	Theatre Baths	late Republican
		Segobriga	municipium	Monumental Baths	late Republican
Other Public Buildings/Spaces	1				
a) macellum	1	Lancia	possible municipium	Lancia Baths	late 1 st c. CE
b) garden/park/ courtyard	0				
c) basilica	0				
d) odeum	0				
e) fountain/ nymphaeum					
f) latrine	0				
g) arch/ gateway					
Contro of T	1	Cooperation	1	Cantual/Can	Amount
Centre of Town	1	Caesaraugusta	colonia	Central/ San Juan and San Pedro Street Bath	Augustan

Table 3: Location of Baths in Roman Britain

Location/Building	Total	City	City Status	Bath Name	Bath Date
Main Intersection*/ Major Thoroughfare	8	Lincoln	colonia	Upper City Baths	first half of the 2 nd c. CE
		Lincoln	colonia	Lower City Baths	?
		Caerwent*	civitas capital	Insula XIII Baths	end of the 1 st c. CE
		Canterbury	civitas capital	Canterbury Baths	late 1 st or early 2 nd c.
		Chichester	civitas capital	Chichester Baths	Flavian (?)
		St Albans	civitas capital	Insula XIX Baths	mid-1 st c. CE
		Wroxeter	civitas capital	Forum Baths	mid-120s
Easses	7	Lincoln	1 :	Hanna City	finet half of
Forum	/	Lincoln	colonia	Upper City Baths	first half of the 2 nd c.
		Canterbury	civitas capital	Canterbury Baths	late 1 st or early 2 nd c.
		Chichester	civitas capital	Chichester Baths	Flavian (?)
		Exeter	civitas capital	Exeter Baths	c. 90 CE
		Leicester	civitas capital	Jewry Wall Baths	Antonine
		Wroxeter	civitas capital	Forum Baths	mid-120s
		Caerwent	civitas capital	Insula XIII Baths	end of the 1st c. CE
Temple/Sanctuary	7	York	seat of the governor and colonia	Air Raid Control Centre Baths	pre- Caracallan
		Colchester	colonia	Insula 30 Baths	post- Boudican
		Lincoln	colonia	Lower City Baths	?

		Canterbury	civitas capital	Canterbury Baths	late 1 st or early 2 nd c.
		Silchester	civitas capital	Insula XVIII Baths	second half of the 1st c. CE
		Leicester	civitas capital	Jewry Wall Baths	Antonine
		Caerwent	civitas capital	Insula XIII Baths	end of the 1st c. CE
Residential Area*/ Building	6	Lincoln*	colonia	Lower City Baths	?
		Canterbury	civitas capital	Canterbury Baths	late 1 st or early 2 nd c.
		Chichester	civitas capital	Chichester Baths	Flavian (?)
		Silchester*	civitas capital	Insula XVIII Baths	second half of the 1st c. CE
		Leicester	civitas capital	Jewry Wall Baths	Antonine
		Caerwent	civitas capital	Insula XIII Baths	end of the 1 st c. CE
Water Sources	5		Ţ		1
a) natural sources (river/stream/	3	London	seat of the governor	Huggin Hill Bath	late 1 st c.
spring/		Caistor St	civitas	Insula XVII	early 2 nd c.
coastline)		Edmund	capital	Baths	CE (?)
		Silchester	civitas capital	Insula XVIII Baths	second half of the 1st c. CE
b) cistern(s)	1	London	seat of the governor	Huggin Hill Bath	late 1 st c.
c) castellum aquae	1	Lincoln	colonia	Upper City Baths	first half of the 2 nd c. CE
d) aqueduct	0				
e) well	0				
Industrial, Commercial,	4	Lincoln	colonia	Upper City Baths	first half of the 2 nd c. CE

Artisanal Area*/ Structure		Canterbury	civitas capital	Canterbury Baths	late 1 st or early 2 nd c.
		St Albans	civitas capital	Insula III Baths	end of the 1 st or start of the 2 nd c. CE
		Caerwent	civitas capital	Insula XIII Baths	end of the 1st c. CE
Gate/Edge of Settlement	4	York	seat of the governor and <i>colonia</i>	Air Raid Control Centre Baths	pre- Caracallan
		Lincoln	colonia	Upper City Baths	first half of the 2 nd c.
		St Albans	civitas capital	Insula XIX Baths	mid-1 st c. CE
		Caistor St Edmund	civitas capital	Insula XVII Baths	early 2 nd c. CE (?)
Other Sport/Leisure/ Entertainment Structures	1				
a) theater	1	Canterbury	civitas capital	Canterbury Baths	late 1 st or early 2 nd c.
b) palaestra/ gymnasium	0				
c) stadium/circus	0				
d) amphitheatre	0				
e) bath					
Other Public Buildings/Spaces	1				
a) macellum	1	Wroxeter	civitas capital	Forum Baths	mid-120s
b) garden/park/ c) courtyard	0				
d) basilica	0				
e) odeum	0				
f) fountain/ nymphaeum	0				

g) latrine	0				
h) arch/gateway	0				
Suburban/ Peri-urban	1	York	Seat of the governor	Baths outside the fortress	late 2 nd or early 3 rd c. CE
Centre of Town	0				
Port/Harbour	0			_	

Table 4: Location of Baths in Roman Greece and southern Albania

Location/Building	Total	City	City Status	Bath Name	Bath Date
Other Sport/Leisure/ Entertainment Structures	21				
a) bath	15	Athens	seat of the governor	Southwest Baths	c. 50 CE
		Athens	seat of the governor	Kayatidion Street Baths	dates vary widely
		Corinth	colonia	Forum Baths	Augustan
		Corinth	colonia	Great Baths	c. 200 CE
				on the	
				Lechaion	
				Road	
		Dion	colonia	Great Baths	end of the 2 nd c. CE
		Dion	colonia	Forum Baths	Severan
		Dion	colonia	Central Road Baths	end of the 2 nd /start of the 3 rd c.
		Dion	colonia	Eastern Road Baths/ Villa of Dionysus Baths	Severan
		Philippi	colonia	Octagon Complex Baths	c. 30 BCE

		Philippi	colonia	Philippi	early
		T T		Baths	imperial
		Philippi	colonia	Large Baths	second
					half of the
					2 nd c. CE
		Argos	no status	Theatre	2 nd c. CE
				Baths/Bath A	
		Argos	no status	Bath B	dates vary
		Aptera	no status	Bath 1	late 1 st or
					early 2 nd c.
					CE
		Aptera	no status	Bath 2	late 1 st or
					early 2 nd c.
					CE
b) theatre	4	Athens	seat of the	Kayatidion	dates vary
			governor	Street Baths	widely
		Corinth	colonia	Theatre	post 200
				Baths	CE
		Butrint	colonia	Forum Baths	early
					Principate
		Argos	no status	Theatre	2 nd c. CE
				Baths/Bath A	
c) palaestra/	2	Nicopolis	seat of the	Gymnasium	?
gymnasium		G 11	governor	Baths	
1) (1) (1)	2	Sikyon	no status	Sikyon Baths	?
d) stadium/circus	2	Gortyn	seat of the	Praetorium	Trajanic
		G:1	governor	Baths	0
-\1.414	0	Sikyon	no status	Sikyon Baths	?
e) amphitheatre	0				
Agora/Forum	15	Athens	seat of the	Southwest	c. 50 CE
Agora/Porum	13	Autens		Baths	C. 50 CE
		Athens	governor seat of the	Northwest	rebuilt
		7 MICHS	governor	Baths	after mid-
			50,011101	Dunis	3 rd c. CE
		Thessaloniki	seat of the	Baths of	end of the
			governor	Saint	2 nd /start of
			8	Demetrios	the 3 rd c.
					CE
		Corinth	colonia	Forum Baths	Augustan
		Dion	colonia	Great Baths	end of the
					2 nd c. CE
		Dion	colonia	Forum Baths	Severan
		Dion	colonia	Central Road	end of the
				Baths	2 nd /start of

					the 3 rd c.
		Dion	colonia	Eastern Road Baths/ Villa of Dionysus Baths	Severan
		Philippi	colonia	Octagon Complex Baths	c. 30 BCE
		Philippi	colonia	Philippi Baths	early imperial
		Philippi	colonia	Large Baths	second half of the 2 nd c. CE
		Butrint	colonia	Forum Baths	early Principate
		Argos	no status	Theatre Baths/Bath A	2 nd c. CE
		Argos	no status	Bath B	dates vary
		Sikyon	no status	Sikyon Baths	?
Temple/Sanctuary	13	Athens	seat of the governor	Kayatidion Street Baths	dates vary widely
		Athens	seat of the governor	Olympieion Baths	124-131 CE
		Thessaloniki	seat of the governor	Baths of Saint Demetrios	end of the 2 nd /start of the 3 rd c.
		Nicopolis	seat of the governor	Proasteion Baths/North Baths	late 1 st c. BCE or Hadrianic
		Gortyn	seat of the governor	Megali Baths	Hadrianic
		Gortyn	seat of the governor	Praetorium Baths	Trajanic
		Corinth	colonia	Forum Baths	Augustan
		Dion	colonia	Kelepouris Baths	second half of the 2 nd c. CE
		Butrint	colonia	Forum Baths	early Principate
		Eretria	no status	Eretria Baths	2 nd or 3 rd c. CE
		Sikyon	no status	Sikyon Baths	?

		Aptera	no status	Bath 1	late 1 st or early 2 nd c.
		Aptera	no status	Bath 2	late 1 st or early 2 nd c. CE
Water Sources	12				
a) natural sources	4	Athens	seat of the	Olympieion	124-131
(river/stream/	7	Autons	governor	Baths	CE
spring/		Athens	seat of the	Zappeion	Antonine
coastline)			governor	Baths	
,		Corinth	colonia	Forum Baths	Augustan
		Dion	colonia	Eastern Road Baths/ Villa of Dionysus Baths	Severan
b) cistern	3	Philippi	colonia	Philippi Baths	early imperial
		Aptera	no status	Bath 1	late 1 st or early 2 nd c.
		Aptera	no status	Bath 2	late 1 st or early 2 nd c.
c) aqueduct	3	Gortyn	seat of the governor	Megali Baths	Hadrianic
		Gortyn	seat of the governor	Praetorium Baths	Trajanic
		Argos	no status	Theatre Baths/Bath A	2 nd c. CE
d) castellum aquae	1	Gortyn	seat of the governor	Praetorium Baths	Trajanic
e) well	1	Dion	colonia	Kelepouris Baths	second half of the 2 nd c. CE
O(L . P. 11	11				
Other Public Buildings/Spaces	11				
a) fountain/ nymphaeum	7	Athens	seat of the governor	Southwest Baths	c. 50 CE
		Nicopolis	seat of the governor	Central or Large Baths	Severan
		Gortyn	seat of the governor	Megali Baths	Hadrianic

		Gortyn	seat of the governor	Praetorium Baths	Trajanic
		Corinth	colonia	Forum Baths	Augustan
		Argos	no status	Theatre Baths/Bath A	2 nd c. CE
		Argos	no status	Bath B	dates vary
b) odeum/ bouleuterion	3	Nicopolis	seat of the governor	Odeum Baths	Augustan or pre- Trajanic
		Dion	colonia	Great Baths	end of the 2 nd c. CE
		Argos	no status	Theatre Baths/Bath A	2 nd c. CE
c) macellum	1	Philippi	colonia	Large Baths	second half of the 2 nd c. CE
d) arch/gateway	1	Athens	seat of the governor	Olympieion Baths	124-131 CE
e) garden/park courtyard	0				
f) basilica	0				
g) latrine	0				
Center of Town	5	Nicopolis	seat of the governor	Odeum Baths	Augustan or pre- Trajanic
		Gortyn	seat of the governor	Praetorium Baths	Trajanic
		Eretria	no status	Eretria Baths	2 nd or 3 rd c. CE
		Aptera	no status	Bath 1	late 1 st or early 2 nd c. CE
		Aptera	no status	Bath 2	late 1 st or early 2 nd c. CE
Residential Area*/ Building	5	Athens*	seat of the governor	Southwest Baths	c. 50 CE
		Nicopolis	seat of the governor	Central or Large Baths	Severan
		Nicopolis	seat of the governor	Baths 32	?

		Dion	colonia	Eastern Road Baths/ Villa of Dionysus Baths	Severan
		Eretria	no status	Eretria Baths	2 nd or 3 rd c. CE
~	_		2.1		
Commercial, Industrial, Artisanal	5	Gortyn	seat of the governor	Praetorium Baths	Trajanic
Area*/Structure		Corinth	colonia	Forum Baths	Augustan
		Dion	colonia	Great Baths	end of the 2 nd c. CE
		Dion	colonia	Eastern Road Baths/ Villa of Dionysus Baths	Severan
		Philippi	colonia	Large Baths	second half of the 2 nd c. CE
Gate*/Edge of settlement	4	Athens	seat of the governor	Zappeion Baths	Antonine
		Athens	seat of the governor	Bath O	late 3 rd or early 4 th c. CE
		Dion*	colonia	Great Baths	end of the 2 nd c. CE
		Dion	colonia	Eastern Road Baths/ Villa of Dionysus Baths	Severan
Suburban/ Peri-urban	4	Athens	seat of the governor	Lyceum Baths	4 th c. BCE
		Nicopolis	seat of the governor	Proasteion Baths/ North Baths	late 1 st c. BCE or Hadrianic
		Nicopolis	seat of the governor	Gymnasium Baths	?
		Dion	colonia	Kelepouris Baths	second half of the 2 nd c. CE
Port/Harbour	1	Dion	colonia	Central Road Baths	end of the 2 nd /start of

			the 3 rd c.
Main intersection/	0		
Major thoroughfare			

Table 5: Location of Baths in Roman western Turkey

Location/Building	Total	City	City Status	Bath Name	Bath Date
Other Sport/Leisure/ Entertainment Structures	34				
a) bath	12	Ephesus	seat of the governor	Theatre Gymnasium	Augustan
		Ephesus	seat of the governor	Harbour Baths	Hadrianic
		Patara	seat of the governor	Nero/Vespasian Baths	Neronian
		Patara	seat of the governor	Central Baths	late 1st- early 2 nd c. CE
		Pergamum	no status	West Baths	mid-1 st c. CE
		Pergamum	no status	East Baths	Hadrianic
		Phaselis	no status	Large Bath- Gymnasium	3 rd c. CE
		Phaselis	no status	Bath ZF	?
		Oenoanda	no status	Ml 1	c. 70-90 CE
		Oenoanda	no status	Mk 1	2 nd c. CE
		Tlos	no status	Large Baths	?
		Tlos	no status	Small Baths	70 to early 2 nd c. CE
b) theatre	10	Ephesus	seat of the governor	Theatre Gymnasium	Augustan
		Cremna	colonia	Forum Baths	1 st or early 2 nd c. CE or Hadrianic (?)
		Aphrodisias	no status	Theatre Baths	mid-2 nd c. CE
		Parion	no status	Theatre Baths	2 nd c. CE

		Pergamum	no status	West Baths	mid-1 st c.
		Pergamum	no status	East Baths	Hadrianic
		Phaselis	no status	Large Bath- Gymnasium	3 rd c. CE
		Phaselis	no status	Bath ZF	?
		Priene	no status	Upper	Augustan
				Gymnasium Baths	or 1st c. CE
		Xanthos	no status	Large Baths	2 nd or 3 rd c. CE
c) stadium/circus	6	Ephesus	seat of the	Vedius	mid-2 nd c.
			governor	Gymnasium	CE
		Miletus	no status	Baths of Faustina	mid-2 nd c. CE
		Miletus	no status	West Agora Baths	3 rd or 4 th c. CE
		Nysa ad	no status	Bath-	2 nd c. CE
		Maeandrum		Gymnasium	
		Nysa ad	no status	East Bath	?
		Maeandrum			
		Selge	no status	Extramural Baths	?
d) palaestra/	5	Ephesus	seat of the	Theatre	Augustan
gymnasium			governor	Gymnasium	
		Ephesus	seat of the governor	Harbour Baths	Hadrianic
		Miletus	no status	Baths of Vergilius Capito	Claudian
		Priene	no status	Upper Gymnasium Baths	Augustan or 1st c. CE
		Perge	no status	North Baths	3 rd c. CE
e) amphitheatre	0				
Agora/Forum	24	Ephesus	seat of the governor	Varius Baths	first half of the 2 nd c. CE
		Ephesus	seat of the governor	Baths of the Upper Agora/Stoa Basilica Baths	late 2 nd c. CE
		Patara	seat of the governor	Nero/Vespasian Baths	Neronian

		Cremna	colonia	Forum Baths	1 st or early 2 nd c. CE or Hadrianic (?)
		Aphrodisias	no status	Hadrianic Baths	Hadrianic
		Hierapolis	no status	Large Baths	mid-2 nd c. CE
		Miletus	no status	Baths of Vergilius Capito	Claudian
		Miletus	no status	Baths of Faustina	mid-2 nd c. CE
		Miletus	no status	West Agora Baths	3 rd or 4 th c. CE
		Pergamum	no status	West Baths	mid-1 st c. CE
		Pergamum	no status	Baths of the Acropolis	first half of the 2 nd c. CE
		Priene	no status	Upper Gymnasium Baths	Augustan or 1st c. CE
		Smyrna	no status	Agora Baths	post 177 CE
		Arykanda	no status	Great Bath- Gymnasium	late 1 st or 2 nd c. CE
		Oenoanda	no status	Ml 1	c. 70-90 CE
		Oenoanda	no status	Mk 1	2 nd c. CE
		Phaselis	no status	Large Bath- Gymnasium	3 rd c. CE
		Phaselis	no status	Bath ZF	?
		Tlos	no status	Large Baths	?
		Tlos	no status	Small Baths	70 to early 2 nd c. CE
		Xanthos	no status	Large Baths	2 nd or 3 rd c. CE
		Perge	no status	South Baths	Vespasianic
		Sagalassos	no status	Old Baths then Bath Gymnasium	10-30 CE then 165 CE
		Selge	no status	Upper Agora Baths	?
10) Other Public Buildings/Spaces	23				

a) fountain/ nymphaeum	8	Ephesus	seat of the governor	Varius Baths	first half of the 2 nd c. CE
		Alexandria Troas	colonia	Baths- Gymnasium of Herodes Atticus	130s CE
		Aphrodisias	no status	Theatre Baths	mid-2 nd c. CE
		Miletus	no status	Baths of Vergilius Capito	Claudian
		Pergamum	no status	West Baths	mid-1 st c. CE
		Pergamum	no status	East Baths	Hadrianic
		Perge	no status	South Baths	Vespasianic
		Sagalassos	no status	Old Baths: then	10-30 CE
				Bath-	then 165
				Gymnasium	CE
b) odeum/	4	Parion	no status	Theatre Baths	2 nd c. CE
bouleuterion		Sagalassos	no status	Old Baths: then	10-30 CE
				Bath-	then 165
		D: (Gymnasium	CE
		Priene (part	no status	Upper	Augustan
		of agora)		Gymnasium Baths	or 1 st c. CE
		Smyrna	no status	Agora Baths	post 177
		(part of	no status	Agora Danis	CE
		agora)			CL
c) arch/gateway	4	Ephesus	seat of the governor	Varius Baths	first half of the 2 nd c. CE
		Patara	seat of the	Nero/Vespasian	Neronian
			governor	Baths	
		Cremna	colonia	Forum Baths	1 st or early 2 nd c. CE or Hadrianic (?)
		Miletus	no status	Baths of Vergilius Capito	Claudian
d) garden/park/ courtyard	3	Ephesus	seat of the governor	Vedius Gymnasium	mid-2 nd c.
		Aphrodisias	no status	Theatre Baths	mid-2 nd c.

		Miletus	no status	Baths of Faustina	mid-2 nd c.
e) latrine	3	Ephesus	Seat of the governor	Varius Baths	first half of the 2 nd c. CE
		Phaselis	No status	Large Bath- Gymnasium	3 rd c. CE or later
		Phaselis	No status	Baths ZF	?
f) macellum/ market building	2	Ephesus	Seat of the governor	Harbour Baths	Hadrianic
		Selge	no status	Upper Agora Baths	?
Main Intersection*/ Major thoroughfare	15	Ephesus	seat of the governor	Theatre Gymnasium	Augustan
		Ephesus	seat of the governor	Varius Baths	first half of the 2 nd c. CE
		Ephesus	seat of the governor	Harbour Baths	Hadrianic
		Ephesus	seat of the governor	Vedius Gymnasium	mid-2 nd c. CE
		Patara	seat of the governor	Nero/ Vespasian Baths	Neronian
		Magnesia ad Maeandrum	no status	City Gymnasium	pre-150 or 2 nd or 3 rd c. CE (?)
		Pergamum	no status	Baths of the Acropolis	first half of the 2 nd c. CE
		Priene	no status	Upper Gymnasium Baths	Augustan or 1st c. CE
		Phaselis	no status	Large Bath- Gymnasium	3 rd c. CE or later
		Phaselis	no status	Bath ZF	?
		Rhodiapolis	no status	Large Baths	2 nd c. CE
		Perge	no status	South Baths	Vespasianic
		Perge	no status	North Baths	3 rd c. CE
		Side	no status	Large Baths	early-to- mid-3 rd c. CE
		Selge	no status	Upper Agora Baths	?

Temple/Sanctuary	10	Ephesus	seat of the governor	Varius Baths	first half of the 2 nd c.
		Cremna	colonia	Forum Baths	1 st or early 2 nd c. CE or Hadrianic (?)
		Miletus	no status	Baths of Vergilius Capito	Claudian
		Miletus	no status	Baths of Faustina	mid-2 nd c.
		Parion	no status	Theatre Baths	2 nd c. CE
		Pergamum	no status	West Baths	mid-1 st c. CE
		Pergamum	no status	East Baths	Hadrianic
		Priene	no status	Upper Gymnasium Baths	Augustan or 1st c. CE
		Tlos	no status	Large Baths	?
		Tlos	no status	Small Baths	70 to early 2 nd c. CE
Cata/Edan of	9	F-1		E4	
Gate/Edge of	9	Ephesus	seat of the	East	mid-to-late
Settlement			governor	Gymnasium	2 nd c. CE (?)
Settlement		Patara	seat of the governor	Gymnasium Harbour/North Baths	
Settlement		Patara Cremna	seat of the	Harbour/North	(?) late 1 st - early 2 nd c.
Settlement			seat of the governor	Harbour/North Baths	(?) late 1 st - early 2 nd c. CE 1 st or early 2 nd c. CE or Hadrianic
Settlement		Cremna Pisidian	seat of the governor	Harbour/North Baths Forum Baths Northwest	(?) late 1 st - early 2 nd c. CE 1 st or early 2 nd c. CE or Hadrianic (?)
Settlement		Cremna Pisidian Antioch	seat of the governor colonia	Harbour/North Baths Forum Baths Northwest Corner Baths Bath	(?) late 1 st - early 2 nd c. CE 1 st or early 2 nd c. CE or Hadrianic (?) ? late 2 nd or early 3 rd c.
Settlement		Pisidian Antioch Sardis Arykanda Perge	seat of the governor colonia colonia no status	Harbour/North Baths Forum Baths Northwest Corner Baths Bath Gymnasium Great Bath- Gymnasium South Baths	late 1 st - early 2 nd c. CE 1 st or early 2 nd c. CE or Hadrianic (?) ? late 2 nd or early 3 rd c. CE late 1 st or 2 nd c. CE
Settlement		Cremna Pisidian Antioch Sardis Arykanda Perge Perge	seat of the governor colonia colonia no status	Harbour/North Baths Forum Baths Northwest Corner Baths Bath Gymnasium Great Bath- Gymnasium South Baths North Baths	(?) late 1 st - early 2 nd c. CE 1 st or early 2 nd c. CE or Hadrianic (?) ? late 2 nd or early 3 rd c. CE late 1 st or 2 nd c. CE Vespasianic 3 rd c. CE
Settlement		Pisidian Antioch Sardis Arykanda Perge	seat of the governor colonia colonia no status no status	Harbour/North Baths Forum Baths Northwest Corner Baths Bath Gymnasium Great Bath- Gymnasium South Baths	late 1 st - early 2 nd c. CE 1 st or early 2 nd c. CE or Hadrianic (?) ? late 2 nd or early 3 rd c. CE late 1 st or 2 nd c. CE
Settlement Water Sources	8	Cremna Pisidian Antioch Sardis Arykanda Perge Perge	seat of the governor colonia colonia no status no status no status	Harbour/North Baths Forum Baths Northwest Corner Baths Bath Gymnasium Great Bath- Gymnasium South Baths North Baths Extramural	(?) late 1 st - early 2 nd c. CE 1 st or early 2 nd c. CE or Hadrianic (?) ? late 2 nd or early 3 rd c. CE late 1 st or 2 nd c. CE Vespasianic 3 rd c. CE

a) natural source (River/stream/	7	Hierapolis	no status	Large Baths	mid-2 nd c.
spring/		Magnesia ad	no status	Lethaeus	2 nd or 3 rd c.
coastline		Maeandrum	no status	Gymnasium	CE (?)
Couperinc		Nysa ad	no status	Bath-	2 nd c. CE
		Maeandrum	no status	Gymnasium	2 0.02
		Nysa ad	no status	East Bath	?
		Maeandrum			
		Parion	no status	Theatre Baths	2 nd c. CE
		Pergamum	no status	Bath	?
				Gymnasium	
		Xanthos	no status	Small Baths	Flavian
b) cistern(s)	1	Rhodiapolis	no status	Large Baths	2 nd c. CE
c) aqueduct	0				
d) castellum	0				
аqиае					
e) well	0				
Port/Harbour	8	Ephesus	seat of the	Harbour Baths	Hadrianic
			governor		
		Patara	seat of the	Harbour/North	late 1 st -
			governor	Baths	early 2 nd c.
					CE
		Miletus	no status	Baths of	Claudian
				Vergilius	
		3.511		Capito	1 . 4et
		Miletus	no status	Baths of Humei	late 1 st c.
		D :		Tepe	CE ond CE
		Parion	no status	Theatre Baths	2 nd c. CE
		Smyrna	no status	Agora Baths	post 177 CE
		Phaselis	no status	Large Bath-	3 rd c. CE or
				Gymnasium	later
		Side	no status	Harbour Baths	2 nd c. CE
Commercial,	7	Ephesus	seat of the	Theatre Baths	Augustan
Industrial, Artisanal			governor		
area*/building		Ephesus	seat of the	Harbour Baths	Hadrianic
			governor		
		Ephesus	seat of the	Vedius	mid-2 nd c.
			governor	Gymnasium	CE
		Ephesus	seat of the	East	mid-to-late
			governor	Gymnasium	2 nd c. CE
					(?)

		Aphrodisias	no status	Theatre Baths	mid-2 nd c.
		Phaselis	no status	Large Bath-	CE 3 rd c. CE or
				Gymnasium	later
		Xanthos	no status	Large Baths	2 nd or 3 rd c.
					CE
Residential area*/ building	4	Ephesus	seat of the governor	Varius Baths	first half of the 2 nd c. CE
		Pergamum	no status	West Baths	mid-1 st c. CE
		Sardis	no status	Bath Gymnasium	late 2 nd or early 3 rd c. CE
		Rhodiapolis	no status	Large Baths	2 nd c. CE
					1 1
Suburban/ Peri-urban	4	Hierapolis	No status	Extramural Baths	2 nd or 3 rd c. CE
		Rhodiapolis	no status	Large Baths	2 nd c. CE
		Xanthos	no status	Small Baths	Flavian
		Selge	no status	Extramural Baths	?
Centre of Town	0				

Bibliography

- Abascal Palazón, J. M. 2019. "Las termas monumentales de Segobriga." In E. Gamo Pazos, J. Fernández Ortea, and D. Álvarez Jiménez (eds.) *En ningún lugar... Caraca y la romanización de la Hispania interior*. Guadalajara: Diputación Provincial de Guadalajara, 379–389.
- Abascal Palazón, J. M., Almagro Gorbea, M., and Cebrián Fernández, R. 2002. "Segobriga 1989-2000. Topografía de la Ciudad y Trabajos en el Foro." *Madrider Mitteilungen* 43: 123–161.
- Abascal Palazón, J. M., Almagro-Gorbea, M., and Lorrio Avarado, A. J. 1997. "Las termas monumentales de Segobriga." *Revista de Arqueología* 195: 38–45.
- Abascal Palazón, J. M., and Espinosa, U. 1989. *La Ciudad Hispano-Romana: Privilegio y poder.* Logroño: Colegio Oficial de Aparejadores y Arquitectos Técnicos de La Rioja.
- Abbasoğlu, H. 2001. "The founding of Perge and its development in the Hellenistic and Roman periods." In D. Parrish, H. and Abbasoğlu (eds.) *Urbanism in Western Asia Minor: New Studies on Aphrodisias, Ephesos, Hierapolis, Pergamon, Perge, And Xanthos.* Portsmouth, R.I.: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 45), 173–188.
- Ackermann, G., and Reber, K. 2018. "New research on the gymnasium of Eretria." In U. Mania and M. Trümper (eds.) *Development of Gymnasia and Graeco-Roman Cityscapes*. Berlin: Edition Topoi (Berlin studies of the ancient world 58), 161–180.
- Adam-Veleni, P. 2011. "Thessaloniki." In Lane Fox, R. (ed.) *Brill's Companion to Ancient Macedon, Studies in the Archaeology and History of Macedon, 650 BC 300 AD*. Leiden: Brill, 545–562.
- Adam-Veleni, P. 2013. "The Hellenistic *Balaneion* at the Roman Forum of Thessaloniki." In S.K. Lucore and M. Trümper (eds). *Greek Baths and Bathing Culture. New Discoveries and Approaches*. Leuven: Peeters (BABesch Supplement 23), 201–210.
- Addyman, P. V. 1989. "The archaeology of public health at York, England." *World Archaeology* 21(2): 244–264.
- Agudo, P. U., Hernández Vera, J. A., and Bienes Calvo, J. J. 2011. "La edilicia urbana privada en Los Bañales: estado de la cuestión." In J. Andreu Pintado. (ed.) *La ciudad romana de los Bañales (Uncastillo, Zaragoza): entre la historia, la arqueología y la historiografia*. Zaragoza: Fernando el Católico (Caesaraugusta 82), 241–261.

- Aktaş, Ş. 2016. "Patara Nero Hamamı Gymnasium Propylonu." In E. Dündar, Ş. Aktaş, M. Koçak, and S. Erkoç (eds.) *Havva İşkan'a Armağan LYKIARKHISSA Festschrift für Havva İşkan*. Istanbul: Ege Yayınlar, 1–14.
- Alarcão, J., and Étienne, R. 1977. *Fouilles de Conimbriga. I: L'Achitecture*. Paris: Diffusion E. de Boccard.
- Alarcão, J., and Étienne, R. 1979. "Conimbriga, ville de Lusitanie." *Latomus* 38(4): 877–890.
- Alba, M. 2006. "Los restos arqueológicos de la calle Reyes Huertas (Mérida): ¿Pozos de nieve de época romana?" *Mérida. Excavaciones arqueológicas* 2003(9): 429–470.
- Albiero, A., Fernandez, C., Petrucci, V., Ugolini, A., and Vitale, V. 2014. "Le terme centrali di Aquinum (Castrocielo, FR). Campagne di scavo 2009-2013." *The Journal of Fasti Online* 316: 1–20.
- Alcock, S. E. 1993. *Graecia Capta: the landscapes of Roman Greece*. Cambridge: Cambridge University Press.
- Alcock, S. E. 1997. "The problem of romanization, the power of Athens." In Hoff, M., and Rotroff, S. (eds.) *The Romanization of Athens: proceedings of an international conference held at Lincoln, Nebraska (April 1996)*. Oxford: Oxbow (Oxbow monograph 94), 1–7.
- Alcock, S. E. 2005. "Roman colonies in the Eastern Empire: a tale of four cities." In Stein, G. (ed.) *The Archaeology of Colonial Encounters: Comparative Persepctives*. Santa Fe: School of American Research Press, 297–330.
- Aleu, M. 1983. "Cloacas de la Tarragona romana." Diario Español de Tarragona 10(3): 83.
- Álvarez Martínez, J. M. 1982. "El foro de Augusta Emerita." In J.M. Sáenez de Buruaga (ed.) *Homenaje a Sáenz de Buruaga*. Madrid: Institución Cultural "Pedro de Valencia," 53–68.
- Andersen, H. D. (ed.) 1997. *Urbanization in the Mediterranean in the 9th to 6th Centuries BC*. Copenhagen: Museum Tusculanum Press (Acta Hyperborea 7).
- Ανδρεου, Ι. 2007. "Τοπογραφικά και πολεοδομικά Νικόπολης." In KL.Zachos (ed.) NICOPOLIS B. Proceedings of the Second International Nicopolis Symposium (11-15 September 2002). Preveza: Actia Nicopolis Foundation, 231–262.
- Andreu Pintado, J. 2010. "Espacio urbano institucional y área periurbana rural. El caso de la ciudad romana de los Bañales (Uncastillo, Zaragoza)." *Cuadernos del Marqués de San Adrián: revista de humanidades* 1: 27-46.
- Andreu Pintado, J. 2011a. "La ciudad romana de Los Bañales (Uncastillo, Zaragoza) en las fuentes históricas." *Caesaraugusta* 82: 19-101.

- Andreu Pintado, J. 2011b. "Una ciudad romana al pie de la via Caesar Augusta-Pompelo. Los Bañales de Uncastillo." El Nuevo Miliario: boletín sobre vías romanas, historia de los caminos y otros temas de geografía histórica 12: 3-14.
- Andreu Pintado, J., González Soutelo, S., García Entero, V., Jordán Lorenzo, Ángel A., and Lasuén Alegre, M. 2008. "Cuestiones Urbanísticas en Torno a la *Civitas* de los Bañales (Uncastillo, Zaragoza)." *SPAL Revista de Prehistoria y Arqueología* 17: 233-266.
- Andrews, C. 2001. "Romanisation: a Kentish Perspective." *Archaeologia Cantiana* 121: 25–42.
- Anton Remolà, J. and Ruiz de Arbulo, J. 2002. "L'Aigua a la Colònia Tarraco." *Empúries* 53: 29–65.
- Antoñanzas Subero, M. A. 2001. "La Chimenea: necrópolis y conjunto termal." *Iberia 4*: 163–173
- Antoñanzas Subero, M. A. and Tejado Sebastián, J. M. 2002. "En las termas." In E. Pavía Laguna, P. Iguácel de la Cruz, J. L. Cinca Martínez, and P. Castillo Pascual, P. (eds.) *Así era la vida en una ciudad romana: Calagurris Iulia*. Calahorra: Amigos de la Historia de Calahorra, 137–144.
- Antonelli, F., Bonetto, J., Lazzarini, L., Salvo, G., and Giovanna Fabrini, M. 2017. "The use of white marble for sculpture in Roman Gortyn (Crete) as revealed by archaeometric analyses." *Archaeological and Anthropological Scienes* 9(4): 579–589.
- Aquilué, X. 2006. "Noves troballes a les excavacions de la ciutat romana d'Empúries." *Cota zero: revista d'arqueologia i ciència* 21: 17–22.
- Aquilué, X., Castanyer, P., Santos, M., Tremoleda, J. 2006. "Resultats del projecte d'excavacions arqueològiques a la Insula 30 de la ciutat romana d'Empúries (l'Escala, Alt Empordà). Anys 2000-2004." *Tribuna d'Arqueologia 2004-2005*: 203–214.
- Aranegui, C. 2011. "The most important Roman cities in Valencia until the 3rd century." *Catalan Historical Review* 4: 9–26.
- Armirotti, A., Amabili, G., Bertocco, G., Castoldi, M., and Rizzo, L. 2018. "Le Terme del Foro di Augusta Praetoria: materiali da un condotto di scarico." In M. Buora and S. Magnani, (eds.) *I sistemi di smaltimento delle acque nel mondo antico: Aquileia, Sala del Consiglio comunale e Casa Bertoli, 6-8 aprile 2017*. Trieste: Editreg (Antichità altoadriatiche 87), 191–208.
- Armirotto, A, Amabili, G., Bertocco, G., Castoldi, M., and Rizzo, L. 2019. "6. Augusta Praetoria. Le Terme del Foro." In M. Medri and A. Pizzo (eds.) *Le Terme Pubbliche nell'Italia Romana (II secolo a.C. fine IV d.C.). Architettura, Tecnologia e Società. Seminario Internazionale di Studio.* Roma, 4-5 ottobre 2018. Rome: TrE Press, 80–95.

- Arroyo Miguel, A. 2020. Arqueología y proyecto de arquitectura: Reconstrucción de las Termas "Arcos 1" de la ciudad romana de Clunia. Ph.D. Dissertation, Universidad de Valladolid. Escuela Técnica Superior de Arquitectura.
- Arslan, M. and Tüner Önen, N. 2016. "Phaselis." In İşkan, H. and Dundar, E. (eds.) *Lukka'Dan Likya'Ya: Sarpedon Ve Aziz Nikolaos'Un Ülkesi / From Lukka to Lycia: The Land of Sarpedon and St. Nicholas*. Istanbul: Yapı Kredi Yayınları, 300–317.
- Artz, J. 2012. "Technological choice and change in the Southwest Bath in the Athenian Agora." *Chronika* 2(1): 1–10.
- Ashby, T. 1904. "69. Excavations at Caerwent in Monmouthshire. Man 4: 101–107.
- Atkinson, D. 1942. Report on Excavations at Wroxeter (The Roman City of Viroconium) in the County of Salop, 1923-1927. Oxford: Oxford University Press.
- Aupert, P. 1974. "Rapports sur les travaux de l'Ecole française en Grece en 1973: Argos. Thermes A." *Bulletin de correspondance hellénique* 98: 764–74.
- Aupert, P. 1983. "Rapports sur les travaux de l'Ecole française en Grece en 1982: Argos. Thermes B." *Bulletin de correspondance hellénique* 98: 848–53.
- Avagliano, A. and Montalbano, R. 2018. "Greek gymnasia for Non-Greek People. Archaeological and Epigraphic Evidence in Pre-Roman Italy." In U. Mania and M. Trümper (eds.) *Development of Gymnasia and Graeco-Roman Cityscapes*. Berlin: Edition Topoi (Berlin studies of the ancient world 58), 75-86.
- Ayerbe Vélez, R., Barrientos Vera, T., Palma García, F. 2009. "Los complejos forenses de "Augusta Emerita"". In R. Ayerbe Vélez, T. Barrientos Vera, F. Palma García (eds.) *El foro de "Augusta Emerita": genesis y evolución de sus recintos monumentales*. Madrid: Consejo Superior de Investigaciones Científicas, 667–832.
- Baldwin Bowsky, M. W., and Niniou-Kindeli, V. 2006. "On the Road Again: A Trajanic Milestone and the Road Connection of Aptera, Crete." *Hisperia* 75.3: 405–433.
- Balil, A. 1956. "Un factor difusor de la romanización: las tropas hispánicas al servicio de Roma (siglos III-I a. de JC)." *Emerita* 24: 108–134.
- Barker, P. A. 1985. "Aspects of the topography of Wroxeter (Viroconium Comoviorum)." In F. Grew and B. Hobley (eds.) *Roman Urban Topography in Britain and the Western Empire*. London: Council for British Archaeology (Council for British Archaeology Research Report 59), 109–117.
- Barker, P., White, R., Pretty, K., Bird, H., and Corbishley, M. (eds.) 1997. *The Baths Basilica Wroxeter. Excavations* 1966-90. London: English Heritage (English Heritage Archaeological Report 8).

- Barrientos Vera, T. 2018. "Los baños públicos romanos en *Augusta Emerita*" In J. M. Noguera Celdrán, V. García Entero, and M. Pavía Page (eds.) *Congresso Internacional. Termas Publicas de Hispania. Murcia-Cartagena del 19 al 21 de abril de 2018. Pre-Actas.* Murcia: Editorial UNED, 85–86.
- Bayburtluoğlu, C. 2003. Arykanda: Yüksek Kayalığın Yanındaki Yer. Galatasaray, İstanbul: Homer kitabevi.
- Bayburtluoğlu, C. 2005. "Arykanda Kazısı Raporu 2004/ Excavations at Arykanda 2004." *ANMED: News Bulletin on Archaeology from Mediterranean Anatolia* 3: 5–10.
- Beckmann, M. 2012. "The Bath-Gymnasium Complex at Nysa on the Meander: Survey and Excavation, 2010." *Mouseion* 12(2): 155–174.
- Beckmann, M. 2008. "Excavations at Nysa on the Meander, 2008: The West Portico of the Gymnasium." *Mouseion* 8(2): 265-279.
- Bejor, G., Lambrugo, C., Frontori, I., Mecozzi, P., Belgiovone, E., Capuzzo, D., Massara, D., Slavazzi, F., Gagliano, E., Panero, E., and Messina, C. 2016. "Gortyna: le Terme a Sud del Pretorio (2003-2014). La storia dell'edificio nella storia della città." In *Annuario della Scuola di Archeologica Italiana di Atene e delle missioni italiane in Oriente* 16: 59–106
- Bellini delle Stelle, F. B., Mannari, A., and Sabelli, R. 1984. *Le Terme Romane di Fiesole*. Fiesole: Museo civico-Zona archeologica.
- Beltrán de Heredia, J. 2015. "Barcino, La Topografía de una Fundación Augustea: Trama Urbana y Edificios Públicos." In J. López Vila (ed.) Tarraco Biennal: actes, 2on Congrés Internacional d'Arqueologia i Món Antic: August i les provincies occidentals, 2000 aniversari de la mort d'August: Tarragona, 26-30 de novembre de 2014. Tarragona: Fundació Privada Mútua Catalana, 207–215.
- Beltrán Lloris, M. 1987. "1. Las termas." In M. Beltrán Lloris (ed.) *Arcóbriga. (Monreal de Ariza, Zaragoza)*. Zaragoza: Fernando el Católico, 53-55.
- Beltrán Lloris, F. 1996. "El Patrimonio Arqueológico de Caesaraugusta: Descubrimiento e Incorporación a La Historia de Zaragoza." *Caesaraugusta* 68: 77–150.
- Bennett, P. 1981. "2. 68-69 A Stour Street." Archaeologia Cantiana 97: 279–281.
- Bennett, P. 1982. "3. St. George's Street Roman Bath-House." *Archaeologia Cantiana* 98: 222–225.
- Bennett, P. 1984. "The topography of Roman Canterbury: a brief re-assessment." *Archaeologia Cantiana* 100: 47–56.
- Benfield, S. and Garrod, S. 1992. "Two recently-discovered Roman buildings in Colchester." *Essex Archaeology and History* 23: 25–38.

- Bergemann, J. 1998. *Die Römische Kolonie von Butrint und die Romanisierung Griechenlands*. Munich: F. Pfeil.
- Bernal, D., Arévalo, A., Muñoz, A., Expósito, J. A., Díaz, J. J., Lagóstena, J., Vargas, J. M., Lara, M., Moreno, E., Saez, A. M., Bustamante, M. 2013. "Las termas y el suburbium marítimo de Baelo Claudia. Avance de un reciente descubrimiento." *Onoba. Revista de Arqueología y Antigüedad* 1: 73–98.
- Bidwell, P. T. 1979. *The legionary bath-house and basilica and forum at Exeter with a summary account of the legionary fortress*. Exeter: University of Exeter Press.
- Bidwell, P. T. 1980. Roman Exeter: Fortress and Town. Exeter: Exeter City Council.
- Bidwell, P. T. 2021. "The Legionary Fortress and its Landscape Context." In S. Rippon and N. Holbrook (eds.) *Roman and Medieval Exeter and their Hinterlands. From Isca to Escanceaster: Exeter, A Place in Time Volume I.* Oxford: Oxbow Books, 127–166.
- Biers, J. C. 1985. *The Great Baths on the Lechaion Road. Corinth*. Princeton: The American School of Classical Studies at Athens (Corinth 17).
- Biers, J. C. 2003. "Lavari est Vivere: Baths in Roman Corinth." In C. K. Williams and N. Bookidis (eds.) *Corinth, the Centenary: 1896-1996*. Athens: American School apf Classical Studies at Athens (Corinth 20), 303–319.
- Biers, W. R. 1984. "The Mirobriga Project. The Roman Baths." *National Geographic Society Research Reports* 21: 27–32.
- Biers, W. R. 1988. *Mirobriga: Investigations at an Iron Age and Roman Site in Southern Portugal by the University of Missouri-Columbia 1981-1986*. Oxford: BAR.
- Biers, W. R. and Biers, J. C. 1982. "Excavations at Mirobriga, the 1982 Season. The Bath Complex." *Muse* 16: 30–35.
- Bingöl, O. 2007. Magnesia on the Meander an Archaeological Guide: The City of Artemis with the White Eyebrows. Istanbul: Homer Kitabevi.
- Bingöl, O. 2020. *Menderes Magnesiasi/Magnesia ad Maeandrum, 1984-2020.* Ankara: Bilgin Kültür Sanat Şti.
- Bingöl, O., Kökdemir, G. 2012. "Menderes Magnesia'sı (Magnesia ad Maeandrum) (1984-2010)." In O Bingöl, A. Öztan and H. Taşkıran (eds.) Dil ve Tarih-Coğrafya Fakültesi 75. Yıl Armağanı DTCF Arkeoloji Bölümü Tarihçesi ve Kazıları (1936-2011). Ankara: Ankara Üniversitesi Basımevi, 391–404.
- Black, E. W. 1992. "A pre-Boudican bath-building at Colchester." *Essex Archaeology and History* 23: 120–123.

- Blagg, T. F. C. 1980. "Roman Civil and Military Architecture in the Province of Britain: Aspects of Patronage, Influence and Craft Organization." *World Archaeology* 12(1): 27–42.
- Blank, E. 1971. Ratae Coritanorum. London: Ginn And Company.
- Blázquez, J. M. 1964. "Causas de la romanización de Hispania." *Hispania* 24(93): 5–26.
- Bloch, H. 1953. "The name of the Baths near the Forum of Ostia." In G.E. Mylonas and D. Raymond (eds.) *Studies Presented to David Moore Robinson on His Seventieth Birthday II*. Saint Louis: Washington University, 412–418.
- Blockley, K. 1980a. "The Marlowe car park excavations." *Archaeologia Cantiana* 96: 402-405.
- Blockley, K. 1980b. "The Marlow III Site." *Canterbury's Archaeological Trust. Annual Report* 1979-1980: 9-11.
- Blockley, P. 1987. "Interim report of work carried out in 1987 by Canterbury Archaeological Trust." *Archaeologia Cantiana* 104: 291–327.
- Blockley, K., Blockley, M., Blockley, P., Frere, S. S., and Stow, S. 1995. *Excavations in the Marlowe Car Park and Surrounding Areas*, Vol. 5. Canterbury: Canterbury Archaeological Trust.
- Blockley, K. and Day, M. 1981. "The Marlowe Excavations 1978-80: A Summary." *Canterbury Archaeological Trust. Annual Report 1980-1981*: 5-8.
- Blümel, W. 1987/1988. Die Inschriften Von Mylasa. Bonn: R. Habelt.
- Boatwright, M. T. 2018. *Hadrian and the Cities of the Roman Empire*. Princeton, NJ: Princeton University Press.
- Boon, G. C. 1957. Roman Silchester: the archaeology of a Romano-British town. London: Max Parrish.
- Boon, G. C. 1972. *Isca: the Roman legionary fortress at Caerleon, Mon.* Cardiff: National Museum of Wales.
- Boon, G. C. 1974. Silchester. The Roman town of Calleva. Newton Abbott: David & Charles.
- Botticelli, F. 2016. "Le Terme Romane i Ferento: Dall'archeologia alla Documentazione sui Restauri Moderni." *Archeologia Classica* 67: 751–786.
- Bowden, W. 2007. "Nicopolis The Ideology of the Late Antique City." In K.L. Zachos (ed.) NICOPOLIS B. Proceedings of the Second International Nicopolis Symposium (11-15 September 2002). Preveza: Actia Nicopolis Foundation, 135–149.
- Bowden, W. 2011. "7. 'Alien settlers consisting of Romans': identity and built environment in the Julio-Claudian foundations of Epirus in the century after Actium." In R.J. Sweetman,

- (ed.) Roman Colonies in the First Century of Their Foundation. Oxford: Oxbow Books, 101–116.
- Bowden, W. 2012. "The Inceni Under Rome. Excavating Caistor St Edmund." *Current Archaeology* 270: 28–35.
- Bowden, W. 2013. "The Urban Plan of Venta Icenorum and its Relationship with the Boudican Revolt." *Britannia* 44: 145–169.
- Bowden, W. and Bescoby, D. 2008. "The plan of Venta Icenorum (Caistor-by-Norwich): interpreting a new geophysical survey." *Journal of Roman Archaeology* 21: 324–335.
- Bozzi, C., Sacchi, F., Gambaro, L. 2017. "I rivestimenti parietali delle terme di Albintimilium." In C. Angelelli, D. Massara, A. Paribeni (eds.) *Atti del XXII Colloquio dell'Associazione Italiana per lo Studio e la Con-servazione del Mosaico, AISCOM, Matera, 16-19 marzo 2016.* Rome: Edizioni Quasar, 203–216.
- Brewer, R. I. 1993. "Venta Silurum: a *civitas* capital." In S.J. Greep (ed.), *Roman Towns: The Wheeler Inheritance. A Review of 50 Years' Research*. York: Council for British Archaeology (Council for British Archaeology Research Report 93), 56–65.
- Bricker, B.L. 2016. *Virtue from Necessity in the Urban Waterworks of Roman Asia Minor*. Ph.D. Diss, University of California Santa Barbara.
- Broughton, T. R. S. 1959. "The Romanization of Spain: The Problem and the Evidence." *Proceedings of the American Philosophical Society* 103(5): 645–651.
- Brown, F. E., Richardson, E. H., Richardson Jr., L. 1993. *Cosa III: The Buildings of the Forum. Colony, Municipium, and Village.* University Park, PA: American Academy in Rome (Memoirs of the American Academy in Rome 37).
- Brückener, C. 2018. *Die Rote Halle in Pergamon-Baugeschichte und urbaner Kontext*. Ph.D. dissertation, BTU Cottbus-Senftenberg.
- Burgers, A. 1997. *The water supplies and related structures of Roman Britain*. Ph.D. Dissertation, University of Leicester.
- Burgers, A. 2001. The water supplies and related structures of Roman Britain. Oxford: BAR.
- Burón Alvarez, M. 1997. El Trazado Urbano En Las Proximidades Del Foro En Asturica Augusta: La Casa Del Pavimento De Opus Signinum. Valladolid: Junta de Castilla y León Consejería de Educación y Cultura.
- Burón Álvarez, M. 2006. "El trazado urbano de "Asturica Augusta" génesis y evolución." In I. Moreno Gallo (ed.) *Nuevos elementos de ingeniería romana: III Congreso de las Obras Públicas Romanas*. Valladolid: Junta de Castilla y León, 289–312.

- Caballero Casado, C. and Jiménez Sanz, C. 2002. "La ciudad de Arcóbriga en el Museo Cerralbo." *Boletín del Museo Arqueológico Nacional* 20: 31–50.
- Cacciavillani, C. A. 2019. "Tipologías, materiales y técnicas de construcción de la ciudad romana de *Saepinum*." In S. Huerta et al. (eds.) *Actas Del Undécimo Congreso Nacional De Historia De La Construcción: Soria 9-12 De Octubre De 2019*. Madrid: Instituto Juan de Herrera Escuela Técnica Superior de Arquitectura de Madrid, 181–190.
- CADW. 1923. Caerwent (Venta Siliurum) Monmouthshire. Site Plan. Coflein. https://coflein.gov.uk/en/archive/6029772/
- Caldelli, M. L. 2008. "L'Attivita dei Decurioni ad Ostia: Funzioni e Spazi." In C. Berrendonner, M. Cébeillac-Gervasoni, L. Lamoine (eds.) *Le quotidien municipal dans l'Occident romain*. Clermont-Ferrand: Presses Univ Blaise Pascal.
- Calonge Miranda, A. 2021. "Calagurris Iulia. Ciudad y territorio en los procesos de monumentalización de época altoimperial." *Cuadernos de Arqueología de la Universidad de Navarra* 29: 1–27.
- Campagna, L., and Scardozzi, G. 2013. "Archeologia delle acque a Hierapolis di Frigia: tematiche principali e metodologie integrate di ricerca." *Collection de l'Institut des Sciences et Techniques de l'Antiquité* 1277(2): 197–220.
- Capano, A. 2009. "Le 'Terme Repubblicane' di Grumentum e la loro evoluzione nel contesto cittadino. Rapporto preliminare," In A. Mastrocinque (ed.) *Grumentum Romana*. Moliterno: ValenBna Porfidio Editore. 78–112.
- Capano, A. 2013. "Un Saggio Nelle 'Terme Imperiali' di Grumentum (2007)." In A. Mastrocinque (ed.) *Grumento e il suo territorio nell'antichita*. Oxford: Archaeopres,. 115–133.
- Caputo, P. 1996. *Cuma e il suo parco archeologico: Un territorio e le sue testimonianze*. Rome: Bardi.
- Caputo, P., Morichi, R., Paone, R., Rispoli, P. 1996. *Cuma e il suo parco archeologico. Un territorio e le sue testimonianze.* Roma: Bardi Editore.
- Carpiceci, A. C. and Pennino, L. 1996. *Paestum and Velia: map of the archaeological zone: mysteries and legends from the origins to the declines.* Salerno: Edition Matonti Salerno.
- Carreño, C. 1992. "Baños privados y termas públicas en el Lugo Romano." *Espacio, Tiempo y Form. Historia Antigua* 5: 337–350.
- Casas, L., Di Febo, C., Boix, C., Egea, A., Vallcorba, O., Queralt, I., Anglisano, A., Moreno, I., Andino, I. 2021. "The Colors of the Circus Mosaic from *Barcino* (Roman Barcelona): Characterization, Provenance, and Technology Issues," *Minerals* 11.7: 746.
- Castagnoli, F. 1971. Orthogonal Town Planning in Antiquity. Cambridge, Mass: MIT Press.

- Castanyer i Masoliver, P., Tremoleda i Trilla, J., Aquilué, X. 2002. "Primers resultats del projecte d'interveció arqueològica a les termes públiques de la ciutat romana d'Emporiae (Empúries, L'Escala, Alt Empordà)." *Empúries* 53: 241–260.
- Cebrián Fernández, R. 2017. "Segobriga, *civitas* stipendiaria (Plin. HN 3.25). Nuevos datos arqueológicos sobre el urbanismo inicial de la ciudad." *Gerión Revista de Historia Antigua* 35(2): 471–489.
- Cebrián Fernández, R. 2019. "Las últimas decisiones del ordo decurionum de Segobriga. Evidencias arqueológicas del funcionamiento de la vida pública municipal a partir del siglo II d. C." In J. Andreu Pintado and A. Blanco-Pérez (eds.) Signs of Weakness and Crisis in the Western Cities of the Roman Empire (c. II-III AD). Stuttgart: Franz Steiner Verlag (Postdamer Altertumswissenschaftliche Beiträge 68), 163–178.
- Ceka, N. 2001. "Die Umwandlung Butrints von einem Koinonzentrum zu einer römischen Kolonie." In J. Isager (ed.) *Foundation and Destruction: Nikopolis and Northwestern Greece*. Athens: University Press, 181–187.
- Çelikbaş, E. 2015. "C. Slope Structure." In C. Başaran (ed.) Keles, C. and M.D. Yilmaz (trans.) The Flourishing City of Ancient Troad: Parion. Surveys, Excavations and Restoration Works Carried Out Between 1997-2009. Istanbul: Ege Yayınları, 67–76.
- Çelikbaş, E. and Oyarçin, K. 2014. "Parion Yamaç Hamamı/The Slope Bath of Parion." *Journal of History Culture and Art Research* 3(4): 61–85.
- Celis Sánchez, J., González, M. J. G., Sánchez, J. C. 2002. "Nuevos datos y aportaciones a la secuencia cultural de la Ciudad de *Lancia* (Villasabariego, León, España)." *Zephyrus* 55: 257–282.
- Ceraudo, G. 2014. "Indagini multidisciplinari ad Aquinum: la valorizzazione delle conoscenze." In G. L. M. Burgers S. J. Kluiving and R. A. E. (eds.) *Multi-, Inter- and Transdisciplinary Research in Landscape Archaeology: Proceedings of the 3rd International Landscape Archaeology Conference in Rome, Italy.* Amsterdam: University Library, Vrije Universiteit, 1-9.
- Ceraudo, G. 2019. "5. Aquinum (Castrocielo, FR). Le Terme Centrali o Vecciane." In M. Medri and A. Pizzo (eds.) *Le Terme Pubbliche nell'Italia Romana (II secolo a.C. fine IV d.C.). Architettura, Tecnologia e Società. Seminario Internazionale di Studio.* Roma, 4-5 ottobre 2018. Rome: TrE Press, 67–80.
- Ceraudo, G. and Murro, G. 2016. "Aquinum: una città romana tra Ricerca e Prospettive di Valorizzazione." *Anales De Arqueología Cordobesa* 27: 59–76.
- Ceraudo, G. and Murro, G. 2019. "Le terme centrali di Aquinum." In M. Valenti (ed.) *Aqua L'approvvigionamento idrico e l'impatto nelle città romane del Lazio meridionale, Atti del Convegno di Studi (Gallicano nel Lazio, 22 novembre 2013)*. Rocca Priora: XI comunità montana del Lazio (Taccuini del Museumgrandtour 1), 77–96.

- Ceraudo G., and Vincenti V. 2015. "Le Terme Centrali di Aquinum (FR): considerazioni preliminari sulle fasi e sulle pavimentazioni". In Angelelli, C. and A. Paribeni, A. (eds.) *Atti del XX Colloquio dell'Associazione Italiana per lo Studio e la Conservazione del Mosaico, (AISCOM), Roma 19-22 marzo 2014.* Tivoli: Edizioni Scripta Manent, 257–266.
- Ceraudo G., Molle C., Nonnis, D. 2013a. "L'iscrizione musiva delle Terme Centrali di Aquinum." *Orizzonti: Rassegna di archeologia* 14: 101–109.
- Ceraudo, G., Albiero, A., Fernandez, C., Murro, G., Petrucci, V., Romagnoli, G., Ugolini, A. Vitale, V. 2013b. "Area archeologica di Aquinum. Terme centrali." *Studi Cassinati. Anno XIII*(3): 133-139.
- Çevik, N., Kizgut, İ., and Bulut, S. 2010. "Rhodiapolis, as a Unique Example of Lycian Urbanism." *Adalya* 13: 29–63.
- Chankowski, V. 2008. <u>A</u>thènes et Délos à l'époque classique. Recherches sur l'administration du sanctuaire d'Apollon délien (Bibliothèque des écoles françaises d'Athénes et de Rome 331). Athens: École française d'Athénes.
- Chaisemartin, N. de and Theodorescu, D. 1991. "Recherches préliminaires sur la frons scaenae du théâtre." In R. R. R. Smith and K. T. Erim (eds.) *Aphrodisias Papers 2: The Theatre, a Sculptor's Workshop, Philosopers, and Coin-Types. Including the papers given at the Third International Aphrodisias Colloquium held at New York University on 7 and 8 April, 1989.* Ann Arbor: Michigan University Press (Journal of Roman Archaeology Suppl. 2), 29–65.
- Ciampoltrini, G. 1995. "Le Terme pubbliche nelle città dell'etruria centro-set-tentrionale fra I e II secolo d.C." *Studi classici e orientali* 43: 427–446.
- Cicala, L. 2013. "Il Quartiere occidentale di Elea-Velia." *Mélanges de l'École française de Rome Antiquité* 125(1): 1–106.
- Cicala, L. 2017. "Velia. Le ricerche dell'Università di Napoli Federico II nel Quartiere meridionale." In A. Pontrandolfo and M. Scafuro, (eds.) *Dialoghi sull'Archeologia della Magna Grecia e del Mediterraneo, Atti del Convegno Internazionale, Paestum 7-9 settembre 2016.* Paestum: Pandemos, 275–286.
- Cicala, L. and Vecchio, L. 1999. "Le indagini stratigrafiche nell'area della cd. Agorà di Velia." In G. Tocco (ed.) *Neue Forschungen in Velia*. Wien: Oesterreichische Akademie der Wissenschaften, 67–72.
- Cicerchia, P., and Marinucci, A. 1992. *Scavi di Ostia. Vol. XI: Le Terme del Foro o di Gavio Massimo*. Rome: Istituto Poligrafico e Zecca dello Stato.
- Cinca Martínez, J. L. 2002. "La Red de Saneamiento." In G. Andrés, A. Antoñazas, P. Castillo, J.L. Cinca, C. Espejo, C. Fajardo, M. García, J. Garrido, A. González, P. Iguácel, V. Iribarren, J. Martínez, M.P. Pascual, E. Pavía, R. Pinillos, C. Rovira and J.M. Tejado (eds.) *Así era la vida en una ciudad romana: Calagurris Iulia*. Calahorra: Amigos de la Historia de Calahorra, 61–72

- Cinca Martínez, J. L. 2011. "5. Urbanismo y obras públicas en el Alto Imperio." In J. L. Cinca and R. González (eds.) *Historia de Calahorra*. Calahorra: Amigos de la Historia de Calahorra, 94–108.
- Claridge, A. 1986. "Il Vicus di epoca imperiale nella tenuta di Castelporziano: indagini archeologiche 1984." In I. Castelporziano (ed.) *Campagna di scavo e restauro 1984*. Rome: Viella, 69–75.
- Cleary, S. 1997. "Review of 'Excavations in the Marlowe Car Park and Surrounding Areas.' By K. Blockley, M. Blockley, P. Blockley, S.S. Frere and S. Stow. The Archaeology of Canterbury 5. Canterbury Archaeological Trust, Canterbury, 1995. 3 vols." *Britannia* 28: 491–492.
- CND Planning and Forum Heritage Services. 2016. *Caerwent. Conservation Area Appraisal and management Proposals*. Monmouthshire County Council. https://www.monmouthshire.gov.uk/app/uploads/2016/04/Caerwent-CA-Appraisal.pdf
- Coarelli, F. 1984. "Teate (Chieti)." In F. Coarelli and A. La Regina (eds.) *Abruzzo Molise*. Rome: Laterza (Guide Archeologiche Laterza 9), 143–155.
- Coarelli, F., and La Regina, A. 1984a. "Alba Fucens." In F. Coarelli and A. La Regina (eds.) *Abruzzo Molise*. Rome: Laterza (Guide Archeologiche Laterza 9), 62–99.
- Coarelli, F., and La Regina, A. 1984b. "Saepinum." In F. Coarelli and A. La Regina (eds.) *Abruzzo Molise*. Rome: Laterza (Guide Archeologiche Laterza 9), 209–228.
- Coelho, T. C. 1996. "Termas do Aqueduto de Conimbriga. Estudo analítico e comparative." In J. M. Bairrão Oleiro and M. Justino Maciel (eds.) *Miscellanea en homenagem ao professor Bairrão Oleiro*. Lisboa: Edições Colibri, 83-122.
- Condi, D. 1999. "Ujësjellësi i Butrintit / The Butrint Aqueduct." *Iliria* 29: 211–222.
- Conventi, M., Massabò, B., and Trigona, S.L. 2019. "3. Albingaunum (Albenfa, SV). Il complesso delle terme pubbliche." In M. Medri and A. Pizzo (eds.) *Le Terme Pubbliche nell'Italia Romana (II secolo a.C. fine IV d.C.). Architettura, Tecnologia e Società. Seminario Internazionale di Studio.* Roma, 4-5 ottobre 2018. Rome: TrE Press, 33–48.
- Cooley, A. E. and Cooley, M. G. L. 2014. *Pompeii and Herculaneum: A Sourcebook*. Second Edition. London: Routledge.
- Cooper, N. J. and Buckley, R. J. 2003. "New light on Roman Leicester (*Ratae Corieltauvorum*)." In P. Wilson (ed.) *The Archaeology of Roman Towns. Studies in Honour of John S. Wacher*, Oxford: Oxbow Books, 31–43.
- Cooper, N. J. and Buckley, R. 2004. "Recent, and not so recent, work in Roman Leicester (Ratae Corieltauvorum)." In P. Bowman and P. Liddle (eds.) *Leicestershire Landscapes*. Leicester: Leicestershire Museums Archaeological Fieldwork Group (*Leicestershire Museums Archaeological Fieldwork Group Monographs* 1), 51–62.

- Correia, V. H., and Reis, M. P. 2000. "As Termas de Conimbriga: Tipologias Arquitectónicas e integração urbana." In C. Fernández Ochoa and V. García Entero (eds.) *Termas romanas en el Occidente del Imperio. Il Coloquio Internacional de Arqueologia en Gijón 1999*. Gijón: VTP, 271–280.
- Coulton, J. 1986. "Oinoanda: The Agora." Anatolian Studies 36: 61–90.
- Cozzolino, M., Gentile, V., Giordano, C., and Mauriello, P. 2020. "Imaging Buried Archaeological Features through Ground Penetrating Radar: The Case of the Ancient Saepinum (Campobasso, Italy)." *Geosciences* 10.6: 225.
- Crawford, M., and Keppie, L. 1984. "Excavations at Fregellae, 1978–1984: An Interim Report on the Work of the British Team." *Papers of the British School at Rome* 52: 21–35.
- Croce Da Villa P., 2001a. "Evoluzione dell'impianto urbano dell'antica Concordia. La forma urbis dal I sec. a.C. al VII sec. d.C." in Croce Da Villa P., Di Filippo Balestrazzi E. (eds.) *Concordia Sagittaria. Tremila anni di storia*. Padova: Esedra, 125–145.
- Croce Da Villa, P., 2001b. "I complessi termali. Terme pubbliche." In P. Croce Da Villa and E. Di Filippo Balestrazzi (eds.) *Concordia Sagittaria. Tremila anni di storia*. Padova: Esedra, 168–70.
- Croce Da Villa, P. 2007. "Aquileia e Iulia Concordia: evoluzione urbanistica di due città di frontiera." *Simulacra Romae. Edición digital de Simulacra Romae*. Alicante: Biblioteca Virtual Miguel de Cervantes, 327–343.
- Croce Da Villa, P. 2008. "Proposte interpretative sulle terme di *Iulia Concordia*." *Quaderni di archeologia del Veneto Venezia* 24: 165–174.
- Crummy, P. 1977. "Colchester: The Roman Fortress and the Development of the Colonia." *Britannia* 8: 65–105.
- Crummy, P. 1985. "Colchester: the mechanics of laying out a town." In F. Grew and B. Hobley (eds.) *Roman Urban Topography in Britain and the Western Empire*. London: Council for British Archaeology (Council for British Archaeology Research Report 59), 78–85
- Crummy, P. 1988. "Colchester (Camulodunum/Colonia Vitricensis)." In G. Webster (ed.) Fortress into City. The Consolidation of Roman Britain, First Century AD. London: Batsford, 24–47
- Crummy, P., 1991. "Where was Colchester's public bath-house?" The Colchester Archaeologist 4: 8–11.
- Crummy, P. 1998. "The development of Roman Colchester." In S. J. Greep (ed.), *Roman Towns: The Wheeler Inheritance. A Review of 50 Years' Research*. York: Council for British Archaeology (Council for British Archaeology Research Report 93), 34–45.

- Crummy, P. 1999. "Colchester: making towns out of fortresses and the first urban fortifications in Britain." In H. Hurst (ed.) *The* Coloniae *of Roman Britain: New Studies and a Review. Papers of the conference held at Glouchester on 5-6 July, 1997.* Portsmouth, RI: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 36), 88–100.
- Crummy, P. 2019, August 2. *Reach for your towel... it's a bath house!* The Colchester Archaeological Trust Online. https://www.thecolchesterarchaeologist.co.uk/?p=42388
- Cuesta, R., Fiz, I., Subias, E., Tuset, F. and Iglesia, M. A., 2019. "Hydraulic and urban management during Roman times based on GIS and remote sensing analysis (Clunia, Spain)." *Rev. D'arqueologia Ponent* 29: 123–146.
- Curchin, L.A. 1986. "The Romanization of Spain: an overview." *Echos du monde classique: Classical views* 30(3): 271–285.
- Curchin, L. A. 2004. The Romanization of Central Spain: The Complexity, Diversity and Change in a Provincial Hinterland. New York: Routledge.
- D'Agostino, B. and D'Acunto, M. 2009. "La Città e Le Mura: Nuovi Dati dall'Area Nord della Città Antica." In A. Alessio, M. Lomardo, A. Siciliano (eds.) *Cuma. Atti del quarantottesimo Convegno di studi sulla Magna Grecia, Taranto 27 settembre 1 ottobre 2008.* Taranto: Istituto per la Stria e L'Archaeologia della Magna Grecia, 481–522.
- D'Andria, F. 2001. "Hierapolis of Phrygia: its evolution in Hellenistic and Roman times." In D. Parrish, H. and Abbasoğlu (eds.) *Urbanism in Western Asia Minor: New Studies on Aphrodisias, Ephesos, Hierapolis, Pergamon, Perge, And Xanthos.* Portsmouth, R.I.: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 45), 97–115.
- Davies, J. 1999. "Patterns, power and political progress in Iron Age Norfolk." In J. Davies and T. Williamson (eds.) *Land of the Iceni: The Iron Age in Northern East Anglia*. Norwich: Centre of East Anglian Studies (Studies in East Anglia History 4), 14–43.
- Dawkes, G. and Hart, D. 2017. "Chichester *Thermae* reconsidered. Recent Excavations at Tower Street, Chichester." *Sussex Archaeological Collections* 155: 43–66.
- De Agostino, A. 1954. Fiesole. The Archeological Zone and the Museum. Rome: Libreria dello Stato.
- De Giorgi, A. U. 2018. "Sustainable Practices? A Story from Roman Cosa (Central Italy)." *Journal of Mediterranean Archaeology* 31(1): 3–26.
- De Giorgi, A. U. 2019. "8. Cosa (Ansedonia, GR). Il complesso termale." In M. Medri and A. Pizzo (eds.) *Le Terme Pubbliche nell'Italia Romana (II secolo a.C. fine IV d.C.). Architettura, Tecnologia e Società. Seminario Internazionale di Studio.* Roma, 4-5 ottobre 2018. Rome: TrE Press, 115–122.
- De Graazia, C. and Williams II, C. K. 1977. "Corinth 1976: Forum Southwest." *Hesperia* 46(1): 40–81.

- de la Bédoyère, G. 2013. Roman Britain: A New History. New York: Thames & Hudson.
- DeForest, D. 2020. "Bath, city and society in Late Roman Athens." *Journal of Greek Archaeology* 5: 327–366.
- del Mar Castro García, M. 2016. La gestión del agua en época romana: casuística en las ciudades de la provincia Hispania Ulterior-Baetica. Ph.D Dissertation, Laval University.
- DeLaine, J. 1988. "Recent Research on Roman Baths." Journal of Roman Archaeology 1: 11–32.
- DeLaine, J. 1989. "Some observations on the transition from Greek to Roman baths in Hellenistic Italy." *Mediterranean Archaeology* 2: 111–25.
- DeLaine, J. 1999a. "Benefactions and urban renewal: bath building in Roman Italy." In J. DeLaine and D.E. Johnston (eds.) Roman Baths and Bathing: proceedings of the first International Conference on Roman Baths held at Bath, England, 30 March-4 April 1992. Portsmouth RI: Journal of Roman Archaeology (Journal of Roman archaeology suppl. 37), 67-74.
- DeLaine, J. 1999b. "Baths the urban phenomenon." In J. DeLaine and D.E. Johnston (eds.) Roman Baths and Bathing: proceedings of the first International Conference on Roman Baths held at Bath, England, 30 March-4 April 1992. Portsmouth, RI: Journal of Roman Archaeology (Journal of Roman archaeology suppl. 37), 157-163.
- DeLaine, J. 2002. "Building Activity in Ostia in the Second Century A.D." In C. Bruun and A. Gallina Zevi (eds.) *Ostia e Portus nelle loro relaziono con Roma: Atti del convegno all'Institutim Romanum Finlandiae, 3 e 4 dicembre 1999. ActaaInstRomFin* 27. Rome: Institutum Romanum Finlandiae, 41–101.
- DeLaine, J. 2019. "Conclusions." In M. Medri and A. Pizzo (eds.) Le Terme pubbliche nell'Italia romana (II secolo aC–fine IV secolo dC): architettura, tecnologia e società. Seminario Internazionale di Studio (Roma, 4-5 ottobre 2018). Rome: TrE-Press, 549-544.
- de Palol, P. 1994. *Clunia. Historia de la ciudad y guía de las excavaciones*. Burgos: Diputación Provincial de Burgos; Junta de Castilla y León.
- Des Courtils, J. 2003. "Xanthos en Lycie: Nouvelles Données sur La Romanisation d'une Ancienne Cité Indigène." *Revue des Études Grecques* 116(1): 1–16.
- Des Courtils, J. and L. Cavalier. 2001. "The City of Xanthos from Archaic to Byzantine Times." In D. Parrish, H. and Abbasoğlu (eds.) *Urbanism in Western Asia Minor: New Studies on Aphrodisias, Ephesos, Hierapolis, Pergamon, Perge, And Xanthos*. Portsmouth, R.I.: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 45), 148–171.
- Di Iorio, M. 2013. "Il Complesso delle Cisterne." In L. D' Emilio (ed.) *Le Terme di Teate. Guida Interrattiva*. Abruzzo: Pensa Multimedia, 16–17.

- Di Vita, A. 1988. "Il settore L." In A. Di Vita (ed.) *Gortina I.* Roma: L'ERMA di Bretschneider (Monografie della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente 3), 69.
- Di Vita, A. 2000. *Gortina. V Lo Scavo Del Pretorio (1989-1995)*. Padova: Bottega d'Erasmo (Aldo Ausilio).
- Di Vita, A. 2010. *Gortina di Creta. Quindici secoli di vita urbana*. Rome: L'Erma di Bretschneider.
- Díaz García, M. and Macias Solé, J. M. 2004a. "2.1. An Interpretive Analysis." In J. M. Macias Solé (ed.) *Les termes públiques de l'àrea portuària de Tàrraço. Carrer de Sant Miquel de Tarragona*. Tarragona: Institut Català d'Arqueologia Clàssica (Série Documenta, 2), 187–194.
- Díaz García, M. and Macias Solé, J. M. 2004b. "2.3 The *Thermae* of Sant Miquel Street and Imperial Type Baths." In J. M. Macias Solé (ed.) *Les termes públiques de l'àrea portuària de Tàrraco. Carrer de Sant Miquel de Tarragona*. Tarragona: Institut Català d'Arqueologia Clàssica (Série Documenta, 2), 201–208.
- Díaz García, M., García Noguera, M. and Macias Solé, J. M. 2000. "Les termes públiques de Tarragona: Excavacions en el carrer de Sant Miquel, núm. 33. Estudi preliminar." In J. Ruiz de Arbulo (ed.) *Tàrraco 99: Arqueologia D'una Capital Provincial Romana: Tarragona 15 16 I 17 D'abril De 1999*. Tarragona: El Mèdol: Universitat Rovira i Virgili, 111–133.
- Dobbins, J. J., and Foss, P. W. (eds.). 2007. The World of Pompeii. London: Routledge.
- Down, A. 1978. *Chichester Excavations 3*. Chichester: Chichester Civic Society Excavations Committee.
- Down, A. 1988. Roman Chichester. Chichester: Phillimore
- Down, A. and Rule, M. 1971. *Chichester Excavations 1*. Chichester: Chichester Civic Society Excavations Committee.
- Drury, P.J., Bayley, J., Blagg, T. F. C., Evans, J., Going, C. J., Hassall, M. W. C., Niblett, B.R.K. and Wickenden, N.P. 1984. "The temple of Claudius at Colchester reconsidered." *Britannia* 15: 7–50.
- Ducrey, P. and Randall, S. 2004. Eretria: a guide to the ancient city. Gollion: Infolio éditions.
- Dumont, A. 1873. "Nouvelles Archéologiques Et Correspondance." Revue Archéologique 26: 50–54.
- Duncan-Jones, R. P. 1974. "The procurator as civic benefactor." *Journal of Roman Studies* 64: 79–85.

- Duncan-Jones, R. P. 1985. "Who paid for public buildings in Roman cities?" In F. Grew and B. Hobley (eds.) *Roman Urban Topography in Britain and the Western Empire*. London: Council for British Archaeology (Council for British Archaeology Research Report 59), 28–33.
- Dunnett, R., 1971. "Excavations in Colchester 1964-8." *Transactions of the Essex Archaeological Society 3(1): 1-106.*
- Dupré I Raventós, X. 1995. "New Evidence for the Study of the urbanism of Tarraco." In B. Cunliffe and S. Keay (eds.) *Social complexity and the development of towns in Iberia, from the copper age to the second century AD*. Oxford: Oxford University Press, 355–369.
- Eck, W. 2008. "Die Bauinschrift der neronischen Thermen in Patara. Zur methodischen Auswertung einer partiell eradierten Inschrift." *Zeitschrift für Papyrologie und Epigraphik* 166: 269–275.
- Ellis, P. 2000. *The Roman Baths and Macellum at Wroxeter. Excavations by Graham Webster 1955-85*. London: English Heritage (English Heritage Archaeological Report 9).
- Ergül, G. 2019. "Parion Roma Hamamı 2014 Kazı Çalışmalarından Bir Grup Geç Roma Seramiği." *Karamanoğlu Mehmetbey Üniversitesi Edebiyat Fakültesi Dergisi* 2 (1): 32–58.
- Ergürer, E. 2012. Parion Roma Dönemi Seramiği. Ph.D. Dissertation, Atatürk Üniversitesi.
- Erkoç, S. 2018. "Patara Liman Hamamı: Mimarisi ve Yapı Evrelerine Dair İlk Gözlemler." In *Pharselis. Disiplinlerarası Akdeniz Araştırmaları Dergisi* 4: 239–258.
- Erkoç, S. and Aktaş, Ş. 2016. "Die Thermen". In H. İşkan, Ş. Aktaş, M. Koçak, D. Reitzenstein, A. Schmölder-Veit, and C. Schuler (eds.) *Patara. Lykiens Tor zur römischen Welt.* Darmstadt: Philipp von Zabern, 63–68.
- Erkoç, S., Koçak, M., and Laetzer Lasar, S. 2017. "Liman Hamamı Çalışmaları". H. Işık, "Patara 2016 Kazı ve Koruma Çalışmaları." Kazı Sonuçları Toplantısı 39(2): 132–134.
- Espinosa Ruiz, U. 1984. Calagurris Iulia. Calahorra: Logroño.
- Evangelidis, Vasilis. 2014. "Agoras and Fora: Developments in the Central Public Space of the Cities of Greece during the Roman Period." *The Annual of the Britiash School at Athens* 106: 335–356.
- Fabre, G., Mayer, M., Roda, I. 1984. *Inscriptions romaines de Catalogne I. Barcelone (sauf Barcino)*. Paris: Servei de Publicacions de la Universitat Autònoma de Barcelona.
- Fagan, G. G. 1999. "Interpreting the evidence: Did slaves bathe at the baths?" In J. DeLaine and D.E. Johnston (eds.) Roman Baths and Bathing: proceedings of the first International Conference on Roman Baths held at Bath, England, 30 March-4 April 1992. Portsmouth RI: Journal of Roman Archaeology (Journal of Roman archaeology suppl. 37), 25-34.

- Fagan, G. G. 2001. "The Genesis of the Roman Public Bath: Recent Approaches and Future Directions." *American Journal of Archaeology, 105*(3): 403–426.
- Fagan, G. G. 2002. *Bathing in Public in the Roman World*. Ann Arbor: University of Michigan Press.
- Farrington, A. 1995. *The Roman baths of Lycia: an architectural study* (No. 20). British Institute of Archaeology at Ankara.
- Farrington, A. 1999. "The introduction and spread of Roman bathing in Greece." In J. DeLaine and D.E. Johnston (eds.) *Roman Baths and Bathing: proceedings of the first International Conference on Roman Baths held at Bath, England, 30 March-4 April 1992.* Portsmouth RI: Journal of Roman Archaeology (Journal of Roman archaeology suppl. 37), 57–66.
- Fear, A. T. 1996. Rome and Baetica: Urbanization in Southern Spain c. 50 BC-AD 150: Urbanization in Southern Spain c. 50 BC-AD 150. New York, Oxford: Clarendon Press.
- Fears, J. R. 1975. "Cumae in the Roman Imperial Age." *Vergilius* 21: 1–21.
- Fentress, E. 2015. "Book Review of Ostia V: Le terme del nuotatore. Cronologia di un'insula ostiense, by Maura Medri and Valeria di Cola." American Journal of Archaeology 119(1).
- Fernández, R.R. and Molina, A. R., 2007. "Las Termas Orientales de Ilici." *Caesaraugusta* 78: 545–554.
- Fernández Díaz, A. and Olcina Doménech, M. H. 2006. "La decoración pictórica del posible primer Apodyterium Las Termas de Popilio de Lucentum (Tossal de Manises, Alicante)." *Anales de prehistoria y arqueología* 22: 167–182.
- Fernández Ochoa, C. 1993. "La ciudad hispanorromana en los territorios septentrionales de la Península Ibérica." In Spain Ministerio de Cultura (ed.) *La ciudad hispanorromana*. Barcelona: Ministerio de Cultura; Ambit Servicios Editoriales, 224–245
- Fernández Ochoa, C. 2005. "La ciudad romana de Gijón (Asturias, España)." Espacios de ocio, convivencia y cultura en el Arco Atlántico. Los baños públicos como símbolo de la romanidad. Gijón: Fundación Municipal de Cultura, 29–48.
- Fernández Ochoa, C. and García Díaz, P. 2000. "Recuperación y puesta en valor de las termas romanas de Campo Valdés de Gijón (Asturias)." In C. Fernández Ochoa and V. García Entero (eds.) *Termas romanas en el Occidente del Imperio. Il Coloquio Internacional de Arqueologia en Gijón 1999*. Gijón: VTP, 443–449.
- Fernández Ochoa, C. and García Díaz, P. 2017. "El Museo de las Termas Romanas de Campo Valdés (Gijón)." *Boletín del Museo Arqueológico Nacional* 35: 617-622.
- Fernández Ochoa, C. and García Entero, V. 1999. "Las Termas Romanas del Noroeste y de la Mesera Norte de Hispana. Los Modelos Arquitectónicos." *Archivo español de arqueología*, 72: 141-166.

- Feuser, S. 2011. "The Roman Harbour at Alexandria Troas, Turkey." *The International Journal of Nautical Archaeology* 40(2): 256-273.
- Finlay, G. 1857. *Greece Under the Romans: A Historical View of the Condition of the Greek Nation*. Edinburgh, London: William Blackwood and Sons.
- Fishwick, D. 1997. "The Provincial Center at Camulodunum: Towards an Historical Context." *Britannia* 28: 31-50.
- Flohr, M. 2020. "For a and commerce in Roman Italy. In M. Flohr (ed.) *Urban Space and Urban History in the Roman World*. Abington, Oxon: Routledge.
- Forn Perramon, C., Padros Marti, P., and Sánchez Gil de Montes, J. S. 2020. "Urban Transformations in the Roman Town of Baetulo from the Flavian Period." In J. Andreu Pintado (ed.) Archaeology and Economy in the Ancient World Proceedings of the 19th International Congress of Classical Archaeology, Cologne/Bonn 2018. Heidelberg: Propylaeum, 49-64.
- Fournet, T., Lucore, S. K., Redon, B., and Trümper, M. 2013. "Catalog." In S.K. Lucore and M. Trümper (eds). *Greek Baths and Bathing Culture. New Discoveries and Approaches*. Leuven: Peeters (BABesch Supplement 23), 269–334.
- Fox, A. 1948. "The early plan and town houses of Silchester." *Antiquity* 22: 172–178.
- Fox, A. 1952. Roman Exeter (Isca Dumnoniorum): Excavations in the War-Damaged Areas, 1945–1947. Manchester: Manchester University Press.
- Fox, A. 1973. *Exeter in Roman Times*. Exeter: University of Exeter (History of Exeter Research Group Monograph 8).
- Framarin, P. 2004. "Note integrative alla topografia di Augusta Praetoria nell'area a sud del Foro." *Bollettino della Soprintendenza per i Beni e le Attività Culturali*.1: 46-50.
- Francis, J. E. and Harrison, G. W. M. 2003. "Review Article. Gortyn: First City of Roman Crete." *American Journal of Archaeology* 107(3): 487-492.
- Frere, S. S. 1949. "Canterbury Excavations, 1944–8." Antiquity 23.1: 153-160.
- Frere, S. S. 1971. "The forum and baths of Caistor-by-Norwich." *Britainnia* 2: 1–26.
- Frere, S. S. 1972. Verulamium Excavations Vol. 2. Oxford: Oxford University Press.
- Frere, S. 1987. Britannia: A History of Roman Britain, Third Edition. Routledge: London.
- Frere, S. and Simpson, G. 1970. "The Roman Theatre at Canterbury." *Britannia* 1: 83–113.
- Frere, S. S. and Stow, S. 1983. *The Archaeology of Canterbury, vol 7: excavations in the St George's Street and Burgate Street areas.* Canterbury: Canterbury Archeological Trust.

- Fulford, M. 1993. "Silchester: the early development of a *civitas* capital." In S. J. Greep (ed.), *Roman Towns: The Wheeler Inheritance. A Review of 50 Years' Research.* York: Council for British Archaeology (Council for British Archaeology Research Report 93), 16–33.
- Fulford, M. 2013. "Cavella (Silchester)." In R.S. Bagnall (ed.), *The Encyclopedia of Ancient History*, First Edition. Malden, MA: Wiley-Blackwell, 1274–1275.
- Fulford, M. 2022. "Failed and failing bath-houses in late first century Britain." In N. Hodgson and B. Griffiths (eds.) *Roman Frontier Archaeology in Britain and Beyond*. Oxford: Archaeopress, 153–158.
- Fulford, M., Clarke, A., and Lucas, S. 2012. Silchester Insula IX: The 'Town Life' Project 2011. Reading: Department of Archaeology, University of Reading.
- Fulford, M., Clarke, A., Durham, E., Fry, R., S., Machin, S., Pankhurst, N., Wheeler, D. 2018. Silchester Roman Town: The Baths 2018. Reading: Department of Archaeology, University of Reading.
- Fulford, M., Clarke, A., Eaton, J., Fry, R., Lambert-Gates, S., Machin, S., Pankhurst, N., Wheeler, D. 2019. *Silchester Roman Town: The Baths 2019*. Department of Archaeology, University of Reading.
- Gaggiotti, N. M. G. 1982. "Nuovo testo da Saepinum." In S. Panciera (ed.) *Atti del Colloquio Internazionale* AIEGL *su Epigrafia e Ordine Senatorio: Roma 14-20 Maggio 1981*. Roma: Ed. di Storia e Letteratura, 106–110.
- Galve Izquierdo, M. P. 2004. "Una ciudad consolidada: Caesaraugusta a mediados del siglo I." In A. Álvarez García (ed.) *Zaragoza: visiones de una ciudad.* Zaragoza: Ayuntamiento de Zaragoza, 15–33.
- García Entero, V. 2011. "Las termas romanas de Los Bañales." In *La ciudad romana de los Bañales (Uncastillo, Zaragoza): entre la historia, la arqueología y la historiografía, Caesaraugusta* 82: 223–240.
- García Marcos, V. 1994a. *Descubrimiento de unas nuevas termas públicas de Asturica Augusta*. Astorga: Ayuntamiento (Cuadernos municipales 2).
- García Marcos, V. 1994b. "Los espacios público y privado en *Asturica Augusta*". In La ciutat en el món romà. XIV Congrés Internacional d'Arqueologia Clàssica. Tarragona, 5-11/9/1993: Actas. Tarragona: Consejo superior de investigaciones científicas; Institut d'estudis Catalans, 167–168.
- García Marcos, V. and Vidal Encinas, J. M. 1990. *Arqueología en Asturica Augusta (Astorga, León)*. León: Junta de Castilla y Leon, Consejeria de Cultura y Bienestar Social, Direccion General del Patrimonio y Promocion Cultural.
- García Marcos, V., and Vidal Encinas. J.M. 1995. "Recent Archaeological Research at Asturica Augusta." *Proceedings of the British Academy* 86: 371-394.

- García Marcos, V. and Vidal Encinas, J. M. 1996. "Asturica Augusta recientes investigaciones sobre su implantación y desarrollo urbano". In C. Fernández Ochoa and M. Fernández-Miranda (eds.) Los Finisterres Atlánticos en la Antigüedad. Época prerromana y romana (Coloquio Internacional. Gijón, 10-12 de julio de 1995). Madrid, Gijón: Electa; Ayuntamiento de Gijón. 135–145.
- García Marcos, V. and Vidal Encinas, J. M. 1999. "Asturica Augusta: De asentamiento military a urbs magnifica". In Antonio Rodríguez Colmenero (ed.) Los orígenes de la ciudad en el noroeste hispánico (Actas del Congreso Internacional. Lugo, 15-18 de mayo, 1996), vol. 2. Lugo: Servicio de Publicaciones, Diputación Provincial, 911–944.
- Garcia y Bellido, A. 1960. *Colonia Aelia Augusta Italica*. Madrid: Instituto español de arqueologia.
- Gargana, A. 1935. Ferento guida agli scavi. Viterbo: Stabilimento Tipografico G. Agnesotti.
- Gascoyne, A., and Radford, D. 2013. *Colchester, Fortress of the War God*. Oxford: Oxbow Books.
- Gassner, V. 2018. "Die kaiserzeitliche und spätantike Siedlungsentwicklung in der Oststadt von Velia." In G. Schörner and K. Meineck (eds.) *Akten des 16. Österreichischen Archäologentages am Institut für Klassische Archäologie der Universität Wien vom 25. bis 27. Februar 2016.* Vienna: Phoibos Verlag, 125-139.
- Ioannou Centre for Classical & Byzantine Studies, University of Oxford. 2019. *Gaudin's Fountain*. Aphrodisias Excavations. http://aphrodisias.classics.ox.ac.uk/gaudinsfountain.html
- Ioannou Centre for Classical & Byzantine Studies, University of Oxford. 2019. *Gaudin's Gymnasium*. Aphrodisias Excavations. http://aphrodisias.classics.ox.ac.uk/gaudinsgym.html
- Germinario, C., Cultrone, G., Cavassa, L., De Bonis, A., Izzo, F., Langella, A., Mercurio, M., Morra, V., Munzi, P., and Grifa, C. 2019. "Local production and imitations of Late Roman pottery from a well in the Roman necropolis of Cuma in Naple, Italy." *Geoarchaeology* 34(1): 62-79.
- Ghedini, F. and Annibaletto, M. 2012. *Atria Longa Patescunt: Le Forme Dell'abitare Nella Cisalpina Romana*. Roma: Edizioni Quasar.

Giglio et al

- Ginouvès René. 1959. L'établissement Thermal De Gortys D'arcadie. Paris: J. Vrin.
- Ginouvès René. 1962. Balaneutikè; Recherches Sur Le Bain Dans L'antiquité Grecque. Paris: De Boccard.

- Giorgi E. 2007. "Water Technology at Gortyn in the 4th-7th C.A.D.: Transport, Storage and Distribution." In L. Lavan, E. Zanini, A. Sarantis (eds.) *Technology in Transition AD 300-650*. Leiden, Boston: Brill 287-324.
- Giorgi, E. 2016. *Archeologia Dell'acqua a Gortina Di Creta in età Protobizantina*. Oxford: Archaeopress.
- Gómez Araújo, L. 2013. "Revisión interpretativa y cronológica de las termas de Baelo Claudia: nuevas propuestas." *Antquitas* 25: 165-176.
- Gonzalez Soutelo, S. 2012. "El Balneario Romano de Lugo. una nueva interpretacion aquitectonica y funcional." *Saguntum* 44: 167-182.
- Gonzalo Monge, L. A. 2016. "Las termas de Arcóbriga: Intervención 2006." *Boletín del Museo Arqueológico Nacional* 34: 431-438.
- Goodburn, R., Hassall, M. W. C., Tomlin, R. S. O. 1979. "Roman Britain in 1978." *Britannia* 10: 268–356.
- Graneses, M. T., De Feo, R., Pontrandolfi, E. 2019. "Velia (Asces, SA). Le terme del quartiere meridionale." In M. Medri and A. Pizzo (eds.) *Le Terme pubbliche nell'Italia romana (II secolo aC–fine IV secolo dC): architettura, tecnologia e società. Seminario Internazionale di Studio (Roma, 4-5 ottobre 2018)*. Rome: TrE-Press, 481-492.
- Greco, G., and Di Nicuolo, C. 2013. "The Hellenistic Baths at Velia." In S.K. Lucore and M. Trümper (eds). *Greek Baths and Bathing Culture. New Discoveries and Approaches*. Leuven: Peeters (BABesch Supplement 23), 113-130.
- Greco, E., D'Ambrosio, I., Theodorescu, D. 1995. *Guida archeologica e storica agli scavi, al museo ed alle antichità di Poseidonia Paestum*. Taranto: La Colomba.
- Greco, E, D'Ambrosio, I., Theodorescu, D. 1996. *Guida Archaologica e storica agli Scavi al Museo ed alle Antichità di Poseidonia Paestum*. Taranto: Scorpione Editrice.
- Guardascione, F. 2009. "Le terme del Foro e un inedito castellum aquae ella città di Cuma." In G. Gasparri and G. Greco. Puzzuoli (eds.) *Cuma: indagini archeologiche e nuove scopert. Atti della giornata di studi, Napoli, 12 dicembre 2007.* Pozzuoli: Naus Editora, 309-334.
- Guardascione, F. 2019. "9. Cumae (Puzzuoli, NA). Le Terme del Foro." In M. Medri and A. Pizzo (eds.) *Le Terme pubbliche nell'Italia romana (II secolo aC–fine IV secolo dC): architettura, tecnologia e società. Seminario Internazionale di Studio (Roma, 4-5 ottobre 2018)*. Rome: TrE-Press, 123-135.
- Guidobaldi, M.P. 2011. "La Villa dei Papiri di Ercolano: Inquadramento Architettonico e Decorativo alla Luce delle Recenti Indagini Archeologiche." In G.F. La Torre and M. Torelli (eds.) *Pittura ellenistica in Italia e in Sicilia, linguaggi e tradizioni, Atti del Convegno di Studi, Messina*, 24-25 settembre 2009). Rome: Giorgio Bretchneider Editore, 520-529, fig. 155-160; plates XXXIII-XXXIV.

- Guidobaldi, M. P. 2012. "The house of the Telephus relief in Herculaneum: The building history of an aristocratic domus." In D.L. Balch and A. Weissenrieder (eds.) *Contested Spaces: Houses and Temples in Roman Antiquity and the New Testament*. Tübingen: Mohr Siebeck, 278-291.
- Guidobaldi, M. P., Esposito, D., Formisano, E. 2009. "L'Insula I, l'Insula nord-occidentale e la Villa dei Papiri di Ercolano: una sintesi delle conoscenze alla luce delle recenti indagini archeologiche, Vesuviana." *An International Journal of Archaeological and Historical Studies on Pompeii and Herculaneum* 1: 43-180.
- Guitart i Duran, J. 2010. "The origin of the earliest Roman cities in Catalonia: An examination from the perspective of archaeology." *Catalan Historical Review* 3: 9-30.
- Guitart i Duran, J. 1976. *Baetulo. Topografia arqueologia, urbanismo e historia*. Badalona: Monografias Badalonesas.
- Guitart i Duran, J., Padrós i Martí, P. 1991. "La ciutat romana de *Baetulo* (Badalona). Història i urbanisme" *Espais: revista del Departamento de Política Territorial y Obras Públicas* 31: 50-56.
- Gülşen, F. F. 2008. "Patara'daki Roma Dönemi Hamamlarında Planlama ve Mimari." In B. Can and M. Işıklı (eds.) *Doğudan Yükselen Işık: Arkeoloji Yazıları: Atatürk Üniversitesi 50. Kuruluş Yıldönümü Arkeoloji Bölümü Armağanı*. Istanbul: Zero Prod, 453-470.
- Gülşen, F. F. 2012. "Tlos Large Baths and Bath Church." In R. Kreiner und W. Letzner (eds.) SPA: SANITAS PER AQUAM. Proceedings of the International Frontinus-Symposium on the Technical and Cultural History of Ancient Baths. Aachen, March 18-22, 2009. Leuven, Paris, Walpole, MA: Peeters. 125-130.
- Gutiérrez Garcia, M. A., and Serena Vinci, M. 2018. "Large-scale building in Early-imperial Tarraco (Tarragona, Spain) and the dynamics behind the creation of a Roman provincial landscape." In A. Brysbaert, V. Klinkenberg, A. Gutiérrez Garcia-M. and I. Vikatou (eds.) Construction monuments, perceiving monumentality and the economics of building: theoretical and methodological approaches to the built environment. Leiden: Sidestone Press, 269-292.
- Gutiérrez González, F. J. 2006. "La excavación arqueológica del nº 8 de la calle Cinco de Marzo (patio de la Diputación Provincial de Zaragoza. Primera fase." *Saldvie. Estudios de prehistoria y arqueología* 6: 351-387.
- Hanfmann, G.M.A. and Waldbaum, J.C. 1975. A Survey of Sardis and the Major Monuments Outside the City Walls. Cambridge, MA: Harvard University Press ((Archaeological Exploration of Sardis 1).).
- Hartmann, M. 1986. *Vindonissa. Oppidum, Legionslager, Castrum*. Windisch: Einwohnergemeinde.

- Harvey, C. A. 2020. *Imperial Practices and Provincial Realities: The Construction of Baths in the Roman East.* Ph.D. dissertation, University of Michigan (Ann Arbor).
- Hawkes, C.F.C. and Richmond, I.A. 1946. "The Archaeology of Lincolnshire and Lincoln: The Roman Occupation." *Archaeological Journal* 103: 16-84.
- Hebditch, M. and Mellor, J. 1973. "The forum and basilica of Roman Leicester." *Britannia* 4: 1-83.
- Hellmann, M.C. 1992. Recherches sur le vocabulaire de l'architecture grequem d'apres les inscriptions de Delos. Paris: De Boccard.
- Helm, R., Rady, J., and Barber, L. 2010. *Excavations at Market Way St. Stephen's Canterbury*. Canterbury: Canterbury Archaeological Trust (Canterbury Archaeological Trust occasional paper 8).
- Henderson, C. 1988. "Exeter (Isca Dumnoniorum)." In Graham Webster (ed.) Fortress into City. The Conolidation of Roman Britain first century AD. London: B.T. Batsford Ltd, 91-119.
- Hermansen, G. 1982. Ostia: Aspects of Roman City Life. Edmonton: University of Alberta Press.
- Hernandez, D. R. 2017. "Bouthrotos (Butrint) in the Archaic and Classical Periods: The Acropolis and Temple of Athena Polias." *Hesperia* 86(2): 205-271.
- Hernandez, D. R. and Çondi, D. 2016. "The agora and forum at Butrint: a new topography of the ancient urban center." In Jean-Luc Lamboley, Luan Përzhita and Altin Skenderaj (eds.) l'illyrie méridionale et l'épire dans l'antiquité— VI. Volume II. Actes du VIe colloque international de Tirana (20-30 mai 2015). Paris: Diffusion De Boccard, 629-645.
- Hernández Ramírez, J. 2000. "Las Termas de la Calle Reyes Huertas (Mérida)." Anas 13: 59-88.
- Hicks, M. 1997. "2. Castelporziano, Italy." *Canterbury Archaeological Trust. Annual Report* 1995-1996: 99-100.
- Hidalgo, J. M. R. 2012. "Itálica. La Pompeya española." In M. Almagro Gorbea and J. Maier (eds.) *De Pompeya al Nuevo Mundo: La Corona Española y la Arqueología en el Siglo Xviii*. Madrid: Real Academia de la Historia: Patrimonio Nacional, 123-142.
- Hidalgo, J. M. R., Keay, S. J., Jordan, D., and Creighton, J. 1999. "La Italica de Adriano. Resultados de las prospecciones arqueológicas de 1991 y 1993." *Archivo español de arqueología* 72(179-180): 73-97.
- Hinojo García, E., Padrós Martí, P., and Sánchez Gil de Montes, J. S. 2018. "Las Termas Marítimas imperials de la ciudad romana de Baetulo (Hispania Tarraconensis)." In J. M. Noguera Celdrán, V. García Entero, and M. Pavía Page (eds.) *Congresso Internacional. Termas Publicas de Hispania. Murcia-Cartagena del 19 al 21 de abril de 2018. Pre-Actas.* Murcia: Editorial UNED: 337-348.

- Hidalgo, R. 2003. "En torno a la imagen urbana de Italica." Romula 2: 89-126.
- Hidalgo, R. 2008. "Termas." In P. León Alonso (ed.) *Arte romano en la Bética. Arquitectura y Urbanismo*. Sevilla: Fundacíon Focus-Abengoa, 242-273.
- Hodges, R. 2012. "A New Topographical History of Butrint, Ancient *Buthrotum*." In S. De Maria (ed.) *Le ricerche delle missioni archeologiche in Albania nella ricorrenza dei dieci anni di scavi dell'Università di Bologna a Phoinike (2000-2010)*. Atti della Giornata di Studi (Università di Bologna, 10 novembre 2010). Bologna: Ante Quem, 45-69.
- Hodges, R. 2013. "Excavating away the 'poison': the topographic history of Butrint, ancient Buthrotum." In Inge Lyse Hansen, Richard Hodges, and Sarah Leppard (eds.) *Butrint 4. The Archaeologies and Histories of an Ionian Town*. Oxford, Oxbow Books.
- Hodges, R. and Hansen, I.L. 2007. "Introduction." In *Roman Butrint: An Assessment*. Inge Lyse Hansen and Richard Hadges (eds.). Oxford, Oxbow Books, 1-16.
- Horsley, G. 1987. "The Inscriptions from the So-Called 'Library' at Cremna." *Anatolian Studies* 37: 49-80.
- Iezzi, R. 2013. "Il Complesso Termale." In L. D' Emilio (ed.) *Le Terme di Teate. Guida Interrattiva*. Abruzzo: Pensa Multimedia, 14-15.
- Iguácel de la Cruz, P. 2002. "El Trazado Urbano." In G. Andrés, A. Antoñazas, P. Castillo, J. L. Cinca, C. Espejo, C. Fajardo, M. García, J. Garrido, A. González, P. Iguácel, V. Iribarren, J. Martínez, M. P. Pascual, E. Pavía, R. Pinillos, C. Rovira and J. M. Tejado (eds.) *Así era la vida en una ciudad romana: Calagurris Iulia*. Calahorra: Amigos de la Historia de Calahorra, 39-50.
- Inan, J. 1972. "1970 Kremna Kazisi Raporu." Türk Arkeoloji Dergisi 19: 51-97.
- Ingate, J. 2019. *Water and urbanism in Roman Britain: Hybridity and identity*. New York: Routledge.
- Ismaelli, T., Bozza, S., and Scardozzi, G. 2017. L'Agorà centrale di Hierapolis di Frigia. *Mare internum: archeologia e culture del Mediterraneo* 9: 113-141.
- Arkeofili. 2019, April 29. *İzmir'de Bulunan Antik Hamamın Akıbeti Belirsiz*. Arkeofili.com https://arkeofili.com/izmirde-bulunan-antik-hamamin-akibeti-belirsiz/
- Jacobelli, L. 1999. "Le Terme Suburbane di Pompei: architettura e distribuzione degli ambienti." In J. DeLaine and D.E. Johnston (eds.) *Roman Baths and Bathing: proceedings of the first International Conference on Roman Baths held at Bath, England, 30 March-4 April 1992.* Portsmouth RI: Journal of Roman Archaeology (Journal of Roman archaeology suppl. 37), 220-228.

- Japp, S. 2014. "Bath Buildings in Ancient Pergamon (Asia Minor). A Short Overview." 25 siècles de bain collectif en Orient: Proche-Orient, Égypte et péninsule Arabique: balaneia = thermae = hammāmāt 2: 291-306.
- Japp, S., Römhild, H.-H., Schwarzer, H. 2011. "Die Grabungen im Bereich der sog.
 Zentralthermen in Alexandria Troas. Ein Vorbericht über die Kampagne 2009." In E.
 Schwertheim (eds.) Asia Minor Studien 66: Studien zum antiken Kleinasien VII. Bonn: Dr.
 Rudolf Habelt Gmbh, 217-237.
- Jefford, W. 2019. Aug. 1. *Roman Ruins found during excavation of Jacks building in Colchester.*East Anglian Daily Times. https://www.eadt.co.uk/news/21423332.roman-ruins-found-excavation-jacks-building-colchester/
- Jiménez Salvador, J. L., Ribera Lacomba, A. Machancoses López, M. 2013-2014. "Secuencia evolutiva de los edificios para baños en *Valentia* romana." *Saldvie. Estudios de prehistoria* y arqueología 13-14: 18-33.
- Johannowsky, W. 1961. "Relazione preliminare sugli Scavi di Cales." (Bollettino d'Arte 46: 258-268.
- Johnson, J.A. 1983. Roman Forts of the 1st and 2nd Centuries AD in Britain and the German Provinces. A. & C. Black.
- Jones, A. H. M. 1963. "The Greeks Under the Roman Empire." *Dumbarton Oaks Papers* 17: 1-19.
- Jones, H. L. 1924. *Translation of Strabo. Geography, Volume III: Books 6-7.* Cambridge, MA: Harvard University Press (Loeb Classical Library 182).
- Jones, M. J. 1985. "New streets for old: the topography of Roman Lincoln." In F. Grew and B. Hobley (eds.) *Roman Urban Topography in Britain and the Western Empire*. London: Council for British Archaeology (Council for British Archaeology Research Report 59), 86-93.
- Jones, M. J. 1988. "Lincoln (Lindum)." In G. Webster (ed.) Fortress into City. The Consolidation of Roman Britain, First Century AD. London: Batsford, 145-166.
- Jones, M. J., 1999. "Roman Lincoln: changing perspectives." In H. Hurst (ed.) *The Coloniae of Roman Britain: New Studies and a Review: Papers of the Conference Held at Gloucester on 5-6 July 1997*. Portsmouth R.I.: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 36), 101-112.
- Jones, M. J., 2002. Roman Lincoln. Conquest, Colony and Capital. Stroud: Tempus.
- Jones, M. J., 2003a. "The Roman Military Era. A. Archaeological account." In M.J. Jones, D. Stocker, A. Vince (eds.) *The City by the Pool: Assessing the Archaeology of the City of Lincoln*, Oxford, 36-53.

- Jones, M. J., 2003b. "The *Colonia* Era. A. Archaeological account." In M.J. Jones, D. Stocker, A. Vince (eds.) *The City by the Pool: Assessing the Archaeology of the City of Lincoln*, Oxford, 56-137.
- Jones, M. J. 2003c. "Sources of effluence: Water through Roman Lincoln" In J. Wacher and P. R. Wilson (eds.) *The Archaeology of Roman Towns: Studies in Honour of John S. Wacher*. Oxford: Oxbow Books, 111–128.
- Jones, M.J., Sticker, S., Vince, A. 2003. *The City by the Pool: Assessing the Archaeology of the City of Lincoln*. Oxford: Oxbow Books.
- Kadıoğlu, M., and Kadıoğlu, Y.K. 2008. "Native of the marble in ancient city, Nysa on the Meander of Hellenistic and Roman Period, Aydin Western Anatolia Turkey." *IOP Conference Series: Earth and Environmental Science* 2(1): 1-7.
- Kalinowski, A. 2002. "The Vedii Antonini: Aspects of Patronage and Benefaction in Second-Century Ephesos." *Phoenix* 56(1/2): 109-149.
- Kara, O. 2014. "Perge 2013 Yılı Kazıları/Excavations in Perge in 2013." ANMED: News Bulletin on Archaeology from Mediterranean Anatolia 22: 277-291.
- Keay, S. J. 1988. Roman Spain. Palatino: University of California Press.
- Keleş, V. 2015. "Survey Works." In C. Başaran (ed.) V. Keles and M.D. Yilmaz (trans.) *The Flourishing City of Ancient Troad: Parion. Surveys, Excavations and Restoration Works Careid Out Between 1997-2009.* Istanbul: Ege Yayınları, 29-36.
- Keleş, V., Yilmaz, A., and TR, S. 2018. "Conference Abstract. Preliminary Observations on the Roman Baths of Parion and their Water Systems." In *Preliminary Program: De Aquaeductu Urbis Romae: Sextus Iulius Frontinus and the Water of Rome (Rome, 10-18 November 2018)*. Rome, 15.
- Kenyon, K, M. 1948. *Excavations at The Jewry Wall Site, Leicester*. London: The Society of Antiquaries of London (Reports of the Research Committee of the Society of Antiquaries of London 15).
- Kleine, J. 1980. Führer durch die Ruinen von Milet, Didyma, Priene. Ludwigsburg: Karawane-Verlag.
- Klinkott, M. 2014. "Die Ruinen von Alexandria Troas, Bestandsaufnahme der "Thermen des Herodes Atticus" und des "Maldelik" mit einem Nachdruck der Vorberichte von R. Koldewey und A. C. G. Smith." *Asia Minor Studien* 72: 1-46.
- Knoblauch, P. 1993. "Eine topographische Aufnahme des Stadtgebietes von Arykanda in Lykien." In J. Borchhardt and G. Dobesch (eds.) Akten des II. Internationalen Lykien-Symposions: Wien, 6.-12. Mai 1990. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 125-130.

- Koçak, M., and Erkoç, S. 2016. "Patara Nero Hamamı. Likya'nin Bilinen En Erken Hamam Yapılarından Biri Üzerine Gözlemler." In M. Koçak, E. Dündar, Ş. Aktaş and S.Erkoç (eds.) *Havva İşkan'a Armağan LYKIARKHISSA Festschrift für Havva İşkan*. Istanbul: Ege Yayınları, 371-392.
- Koçak, M., and Şahin, F. 2020. "Two Reused 'Blattkelch' Capitals from Patara. An Example of Reuse in the 2nd Century AD in the Context of the Building Activities in and around the Nero Bath." *Gephyra* 20: 193-243.
- Koloski-Ostrow, A. O. 2007. "Chapter 15: The City Baths of Pompeii and Herculaneum." In J. J. Dobbins and P. Foss (eds.) *The World of Pompeii*. London: Routledge, 224-256.
- Koloski-Ostrow A. O. 2015. *The Archaeology of Sanitation in Roman Italy: Toilets Sewers and Water Systems*. Chapel Hill: University of North Carolina Press.
- Korkut, T. 2003. "Zur lykischen Badearchitektur im Lichte der Thermen von Patara." *Istanbuler Mitteilungen* 53: 445-459.
- Korkut, T. et al. 2018. "Excavations at the Ancient City of Tlos (2005-2017)/Tlos Antik Kenti Kazıları (2005-2017)." *ANMED: News Bulletin on Archaeology from Mediterranean Anatolia* 16: 132-141.
- Koukouli-Chrysanthaki, Ch. 2011. "Chapter 20: Philippi." In R. L. Lane Fox (ed.) *Brill's Companion to Ancient Macedon Studies in the Archaeology and History of Macedon, 650 BC 300 AD*. 437–425. Leiden: Brill.
- Krencker, D., Krüger, E., Lehmann, H. and Wachtler, H. 1929. *Die Trierer Kaiserthermen* I. *Ausgrabungsbericht und grundsätzliche Untersuchungen römischer Thermen*. Augsburg: Filser.
- Kuhn, A. B. 2012. "Herodes Atticus and the Quintilii of Alexandria Troas: Elite Competition and Status Relations in the Graeco-Roman East." *Chiron* 42: 421-458.
- La Torre, M., and Steskal, M. 2012. "Das Vediusgymnasium in Ephesos. Ein kaiserzeitlicher Bad-Gymnasium-Komplex." In R. Kreiner und W. Letzner (eds.) SPA: SANITAS PER AQUAM. Proceedings of the International Frontinus-Symposium on the Technical and Cultural History of Ancient Baths. Aachen, March 18-22, 2009. Leuven; Paris; Walpole, MA: Peeters. 283-288
- Laird M. L. 2015. *Civic Monuments and the Augustales in Roman Italy*. New York NY: Cambridge University Press.
- Lancaster, L. C. 2010. "Parthian Influence on Vaulting in Roman Greece? An Inquiry into Technological Exchange Under Hadrian." *American Journal of Archaeology* 114(3): 447-472.
- Lancaster, L. C. 2015. *Innovative Vaulting in the Architecture of the Roman Empire*. *1st to 4th Centuries CE*. New York: Cambridge University Press.

- Laurence, R. 1994. "Modern ideology and the creation of ancient town planning." *European Review of History* 1(1): 9-18.
- Laurence, R. 2006. *Roman Pompeii: space and society*, Second Edition. Abingdon, Oxon, UK: Routledge, Taylor and Francis Group.
- Laurence, R., Cleary, S.E. and Sears, G., 2011. *The City in the Roman West, c. 250 BC–c. AD 250.* Cambridge: Cambridge University Press.
- Laurence, R. 2014. "Streets and facades." In R. B. Ulrich, and C. K. Quenemoen (eds.) *A Companion to Roman Architecture*. Malden, MA: Wiley-Blackwell, 399-411.
- Lausén Alegre, M.D. and Nasarre Otín, E. 2008. "El yacimiento arqueológico de Los Bañales (Uncastillo, Zaragoza): ensayo de actualización/The archaeological site of «Los Bañales» (Uncastillo, Zaragoza): essay of revision." *Espacio, Tiempo y Forma, Serie II, Historia Antigua* 21: 207-234.
- Lavan, 2012. "Public Space in Late Antique Ostia: Excavation and Survey in 2008-2011." *AJA* 116(4): 649-691.
- Leone, D. 2008. "Il balineum sulla via Traiana Studio architettonico e funzionale della fase costruttiva di età imperiale (II-III d.C.)." In G. Volpe and D. Leone (eds.) *Ordona xi. Ricerche archeologiche a Herdonia*. Bari: Edipugila. 17-42.
- Leone, D. 2019. "Herdonia (Ordona, FG). Le terme della Via Traiana." In M. Medri and A. Pizzo (eds.) *Le Terme pubbliche nell'Italia romana (II secolo aC–fine IV secolo dC):* architettura, tecnologia e società. Seminario Internazionale di Studio (Roma, 4-5 ottobre 2018). Rome: TrE-Press, 189-207.
- Levick B. 1967. Roman Colonies in Southern Asia Minor. Oxford: Clarendon Press.
- Ling, R. 2007. "Development of Pompeii's public landscape in the Roman period." In J.J. Dobbins and P.W. Foss (eds.) *The World of Pompeii*. London: Routledge, 119-129.
- Ling, R., and Hall, A. 1981. "Building Mk1 at Oenoanda." *Anatolian Studies* 31: 31-53.
- Lippolis, E. 2016, "Roman Gortyn: from Greek *polis* to provincial capital" In J-E. Francis -A. Kouremenos (eds.) *Roman Crete: New Perspectives*. Oxford: Oxbow Books, 154-174.
- Liz Guiral, J., and Celis Sánchez, J. 2007. "Topografía antigua de la ciudad de Lancia (Villasabariego, León, España)." *Zephyrus* 60: 241-263.
- Llorente, J.A. 1789. *Monmento romano descubierto en Calahorra a 4 marzo de 1788*. Madrid: Oficina de Blas Román.
- Lolos, Y. A. 2011. *Land of Sikyon: Archaeology and History of a Greek City-State*. Princeton: The American School of Classical Studies at Athens (Hesperia Supplement 39).

- Lolos, Y. A. and Gourley, B. 2011. "The Town Planning of Hellenistic Sikyon." Archäologischer Anzeiger 2011: 87-140.
- Lomas, K. 2014. "11: Italy during the Roman Republic, 338–31 BC." In H. I. Flower (ed.) *The Cambridge Companion to the Roman Republic*, Second Edition. New York: Cambridge University Press, 233-259.
- Longo, F. 2014. "Poseidonia/Paestum La città lucana e romana: continuità e trasformazioni." In C. Rescigno and F.o Sirano (eds.) *Immaginando Città: racconti di fondazioni mitiche, forma e funzioni delle città campane. santa maria capua vetere Paestum.* Salerno; Napoli: Soprintendenza per i beni archeologici di Salerno, Avellino, Benevento e Caserta; Prismi: Arte'm, 254-257.
- Lopreato, P. 2004. "Le Grandi Terme di Aquileia. I sectilia ei mosaici del Frigidarium." In G. Cuscito and M. Verzar-Bass (eds.) *Antichità Altoadriatiche LIX, Aquileia dalle origini alla costituzione del ducato longobardo. Topografia Urbanistica Edilizia pubblica.* Trieste: EUT Edizioni Università di Triest, 339-377.
- Lostal Pros, J. 1980. Arqueologia del Aragon Romano. Zaragoza: Uncastillo.
- Lucore, S. K and Trümper, M. (eds.) 2013. *Greek Baths and Bathing Culture: New Discoveries and Approaches*. Leuven: Peeters (BABesch Supplement 23).
- Ludwig, B. 2020. *Pergamon Digital Map 1.1*. iDAI.geoserver. https://geoserver.dainst.org/catalogue/#/map/5548
- Luezas Pascual, R. A. 2000. "Termas Romanas en el Municipium Calagurris Iulia (Calahorra, La Rioga)." In *Termas romana en el Occidente del Imperio, Actas del II Coloquio Internacional de Archueologia en Gijón*: VTP, 185-192.
- Lugli, G. 1957. *La tecnica edilizia romana, con particolare riguardo a Roma e Lazio*, vol. 11. Rome: Scienze e lettere, 639–640.
- Luni, M and Gori, G. 1978. "Impianto termale di *Forum Sempronii.*" *Notizie da Palazzo Albani* 7: 7-26.
- Luni, M., and Gori, G. 1982. "Edificio termale a 'Forum Sempronii,' Nota preliminare." *Picus* 2: 119-130.
- Machancoses López, M. 2015. *Topografía Urbana de la Valentia romana altoimperial: Ciudad y Suburbio* Ph.D. Dissertation, Universidad de Valencia.
- Macias Solé, J. M. 2004. "3.1 Carrer del Dr. Zamenhoff, 2." In J.M. Macias Solé (ed.) *Les Termes Públiques De L'àrea Portuària De Tàrraco: Carrer De Sant Miquel De Tarragona*. Tarragona: Institut Català d'Arqueologia Clàssica, 27-30.
- Macias Solé, J. M. 2009. "L'arquitectura Termal a *Tarraco* i el Seu *Territorium*: Reflexions Sense Resposta." *Butlleti Arquelògic* 5(32): 541-567.

- Macias Solé, J. M. 2013. "The Integrated Management of Archaeological Heritage in Tarragona (ancient Tarraco, Hispania Tarraconensis)." In S. Santoro, E. Sebias and G. Bolzoni (eds.) *Skills and Tools to the Cultural Heritage and Cultural Tourism Management*. Teramo: Edizioni D'Errico.
- Macias Solé, J. M. 2020. "Las termas públicas de *Tarraco*: una investigación pendiente." In J. M. Noguera Celdránm, V. García-Entero and M. Pavía Page (eds.) *Termas Públicas De Hispania*. Sevilla: EUS Editorial Unviersidad de Sevilla Editum Ediciones de la Universidad de Murcia, 283-291.
- Macias Solé, J. M. and Rodà, I. 2015. "Tarraco, the first capital." *Catalan Historical Review* 8: 9-28.
- Madrid, M. J., Noguera Celdran, J. M., Velasco Estrada, V. 2009. "Baño y Ocio: Las Termas del Foro." In J.M. Noguera and M.J. Madrid (eds.) *Arx Hasdrubalis. La ciudad reencontrada. Arqueologia en el Cerro del Molinete, Cartagena*. Cartagena: Tres Fronteras: Dirección General de Bellas Artes y Bienes Culturales, Comunidad Autónoma de la Región de Murcia, 90-114.
- Maetzke, G. 1941. *Florentia (Firenze). Regio VII, Etruria*. Rome: Istituto di studi romani (Italia romana: municipi e colonie 5).
- Maiuri, A. 1958. Ercolano. I nuovi scavi (1927-1958). Rome: Istituto poligrafico dello Stato.
- Magilton, J. 2003. "The Defences of Roman Chichester." In P. Wilson (ed.) *The Archaeology of Roman Towns: Studies in Honour of John S. Wacher*, Oxford: Oxbow Books. 156-167.
- Mansel, A. M. 1963. Die Ruinen von Side. Berlin: W. de Gruyter.
- Mansel, A. M. 1968. "1967 Perge Kazılarına Dair Rapor." *Türk Arkeoloji Dergisi* 16(1): 101-103.
- Mansel, A. M. 1978. *Side: 1947–1967 Yillari Kazilari ve Arastirmalari Sonuçlari*. Ankara: Türk Tarih Kurumu.
- Mar, R. 1990. "Las termas de tipo medio de Ostia y su insercion en el espaci urbano. Estudio preliminary." *Italica* 18: 31-63.
- Mar, R. 1991. "La Formazione dello Spazio Urbano nella Città di Ostia." *Römische Mitteilungen* 98: 81-109.
- Mar, R., Garrido, A., Beltrán-Caballero, J.A. 2012. "Barcino y el urbanismo provincial romano." In R. Grau (ed.) *Presència i lligams territorials de Barcelona. Vint segles de vida urbana*. Quaderns del Seminari d'Història de Barcelona, 18. Barcelona: Arxiu Històric de la Ciutat. 63-112.

- Marco, A. D. "The Cities of Asia Minor under the Roman Imperium." In H. Temporini (ed.) Band 7/2. Halbband Politische Geschichte (Provinzen und Randvölker: Griechischer Balkanraum; Kleinasien [Forts.]). Berlin, Boston: De Gruyter, 658-697.
- Maréchal, S. 2012. "Research on Roman Bathing. Old Models and New Ideas." *Revue Belge de Philologie et d'Histoire* 90: 143-163.
- Marín Jordá, C. and Ribera i Lacomba, A. 2000. "Un caso precoz de edifice termal: los baños republicanos de *Valentia*." C. Fernandez Ochoa and V. Garcia-Entero (eds.) In *Termas romana en el Occidente del Imperio, Actas del II Coloquio Internacional de Archueologia en Gijón*. Gijón: VTP, 151-156.
- Marín Jordá, C. and Ribera Lacomba, A. 2010. "Las Termas De La Época Romana Republicana De L'almoina (Valencia)." *Quaderns de difusió arqueològica* 7: 1-39.
- Mark, H. 2010. *Aphrosisias State Plan with City Grid*. Aphrodisias Excavations. http://aphrodisias.classics.ox.ac.uk/index.html.
- Martens, F., Mušič, B., Poblome, J., and Waelkens, M. 2012a. "The Integrated Urban Survey at Sagalassos." In F. Vermeulen, G.-J. Burgers, S. Keay, and C. Corsi (eds.) *Urban Landscape Survey in Italy and the Mediterranean*. Oxford, Oxbow Books, 84-93.
- Martens, F., Richard, J., Waelkens, M. 2012b. "The Roman Baths at Sagalassos (SW Turkey). A preliminary study of the research potential for a reconstruction of its water management system." In R. Kreiner and W. Letzner (eds.) SPA: SANITAS PER AQUAM. Proceedings of the International Frontinus-Symposium on the Technical and Cultural History of Ancient Baths. Aachen, March 18-22, 2009. Leuven; Paris; Walpole, MA: Peeters, 159–175.
- Martin, A., Ashby, T., and Hudd, A. 1901. "XV. Excavations at Caerwent, Monmouthshire, on the Site of the Roman City of Venta Silurum, in 1899 and 1900." *Archaeologia* 57(2): 295-316.
- Martin, S. 2020. "The Topography of Butrint." In R. Hodges, W. Bowden, and K. Lako (eds.) *Byzantine Butrint. Excavations and Surveys 1994-99*. Oxford. Oxbow Books, 76-103.
- Martín-Bueno, M. 1975. *Bilbilis: estudios histórico-arqueológico*. Zaragoza: Departamento de Historia Antigua de la Universidad.
- Martín-Bueno, M., et al. 2007. "Baños y Letrinas en el Mundo Romano: El Caso del *Balneum* de la *Domus* 1 del Barrio de las Termas de Bilbilis." *Zephyrus* 60: 221-239.
- Martínez Fernández, Á., Ninioú-Kindelí, V. 2007: "Una nueva inscriptión de Aptera (Creta)." In M. Mayer Olivé, G. Baratta, A. Guzmán Almagro (eds.) *Acta XII Congressus internationalis epigraphiae Graecae et Latinae : provinciae imperii romani inscriptionibus descriptae, Barcelona, 3-8 Septembris 2002*. Barcelona: Institut d'estudis Catalans (Monografies de la Secció Històrico-Arqueològica 10), 925-930.

- Martínez Martínez, L. 1981. *Medalla Conmemorativa Bimilenario del Municipio de Calahorra*. Calahorra.
- Martins, M. 2005. As termas romanas do Alto da Cividade: um exemplo de arquitectura pública de Bracara Augusta. Braga: Unidade de Arqueologia da Universidade do Minho (Bracara Augusta. Escavações arqueológicas 1).
- Martins, M., do Carmo Ribeiro, M., and Meireles Baptista, J. 2011. "As termas públicas de Bracara Augusta e o abastecimiento de água da cidade romana." In A. Costa, L. Palahí, and D. Vivó (eds.) *Aquae Sacrae. Agua y sacralidad en época antiqua.* Girona: Universidad de Girona, 1-33.
- Martins, M., and Silva, P. 2000. "As Termas Públicas de *Bracara Augusta*." In C. Fernández Ochoa and V. García Entero (eds.) *Termas Romanas En El Occidente Del Imperio: Gijón 1999*. Gijón: VTP, 73-81.
- Massabò, B. 2006. "Albenga (Sv) L'area archeologica nell'alveo del Centa: le therme pubbliche romana e la chiesa di San Clemente." *The Journal of Fast Online* 70: 1-13.
- Mastrocinque, A., Saggiaoro, F., and Thaler, H. 2012. "New Aspects of urbanism in Grumentum." In W. Bömer, S. Uhlirz, and L. Dolhofer (eds.) *16th International Conference on Cultural Heritage and New Technologies November 14-16, 2011. Proceedings.* Vienna: Museen der Stadt Wien Stadtarchäologie, 362-376.
- Mastrocinque, A., and Saggioro, F. 2012. "Magnetometry at Grumentum in Ancient Lucania." *The Journal of Fasti Online* 245: 1-5.
- Masturzo, N. and Tarditi, C. 1994–1995. "Monumenti pubblici di Gortina romana: le terme della Megali Porta e i templi gemelli." *ASAtene* 72–73: 225–329.
- Mattingly, D. J. 2014. "Identities in the Roman world: discrepancy, heterogeneity, hybridity, and plurality." In G.L. Hoffman and L.R. Brody (eds.) *Roman in the Provinces: Art on the Periphery of Empire*. Chestnut Hill, MA: McMullen McMullen Museum of Art, Boston College, 35-59.
- Mayet, F. 1974. "Campaña de 1970." In C. Domergue (ed.) *Excavaciones de la Casa de Velazquez en Belo (Bolonia Càdiz). Campañas 1966 a 1971*. Madrid: Servicio de Publicaciones del Ministerio de Educación y Ciencia (Excavaciones arqueológicas en España 79), 95-107.
- McComish, J. M. 2015. "Excavations by York Archaeological Trust within the Walled Area to the South-West of the River Ouse, York." *York Archaeological Trust Web Based Report* 48: 1-37.
- McKay, A. G. 1997. "The Monuments of Cumae." Vergilius 43: 78-88.

- McKay, Alexander, G. 1998. "Dominianic Constrution at Cumae (Campania)." In G. L. Shmeling and J. D. Mikalson (eds.) *Qui Miscuit Utile Dulci: Festschrift Essays for Paul Lachlan MacKendrick*. Illinois: Bolchazy-Carducci Publishers, 223-242.
- Medri, M., and di Cola. V. 2013. *Ostia V: Le terme del nuotatore. Cronologia di un'insula ostiense.* Studi miscellanei 36.
- Medri, M., and Pizzo, A. 2019. Le Terme Pubbliche Nell'italia Romana (Ii Secolo A.c Fine Iv D.c.): Architettura Tecnologia E Società: Seminario Internazionale Di Studio Roma 4-5 Ottobre 2018. Roma: Roma TrE-Press.
- Mei, O. 2008. "The town of Forum Sempronii (Marche, Italy) and its relationship with the contemporary landscape." In O. Menozzi, M.L. Di Marzio and D. Fossataro (eds.) *SOMA 2005. Proceedings of the IX Symposium on Mediterranean Archaeology. Chieti (Italy), 24-26 February 2005.* Oxford: Archaeopress (BAR International Series 1739), 377-382.
- Mei, O., Cariddi, L., and Gasparini, M. 2017. "L'area forense di Forum Sempronii: Nuovi dati archittonici e urbanistici alla luce deglis scavi 2013-2017." *European Journal of Roman Architecture* 1: 75-119.
- Mei, O., Cariddi, L., Venturini F., and Invernizzi, L. 2019. "12. Forum Sempronii (Fossombrone, PU). L'edificio termale." In M. Medri and A. Pizzo (eds.) *Le Terme pubbliche nell'Italia romana (II secolo aC–fine IV secolo dC): architettura, tecnologia e società. Seminario Internazionale di Studio (Roma, 4-5 ottobre 2018)*. Rome: TrE-Press, 162-173.
- Meiggs, R. 1973. Roman Ostia, Second Edition. Oxford: Clarendon Press.
- Mertens, J. 1991. "Alba Fucens: a l'aube d'une colonie romaine." *Rivista di topografia antica* 1: 93-112.
- Mertens, J. and Volpe, G. 1999. *Herdoniae*. *Un itinerario storico-archeologico*. Bari: Edipuglia (Scavi e ricerche 11).
- Millar, F., 1993. *The Roman Near East, 31 BC-AD 337*. Cambridge Mass.: Harvard University Press.
- Millett, M. 1990. The Romanization of Britain. Cambridge, U.K.: Cambridge University Press.
- Milne, G. 1993. "The rise and fall of Roman London." In S. J. Greep (ed.) *Roman Towns: The Wheeler Inheritance. A Review of 50 Years' Research*, York: Council for British Archaeology (Council for British Archaeology Research Report 93), 11-15.
- Milner, N.P. 2016. "Building Roman Lycia: new inscriptions and monuments from the baths and peristyle buildings MI I and MI 2 at Oinoanda." *Anatolian Studies* 66: 91-124.
- Miltner, F. 1960. "XXIV. Vorlaufiger Bericht uber die Ausgrabungen in Ephesos." *Jahreshefte des Österreichischen Archäologischen Institutes in Wien* 45: 1–76.

- Mirabella Roberti, M. 1981. "Architettura tardoantica fra Aquileia e Occidente." In M. Mirabella Roberti (ed.) *Aquileia e l'Occidente. Atti dell'11 Settimana di studi aquileiesi, 24-30 aprile 1980.* Udine: Arti grafiche friulane (Antichità Altoadriatiche 19), 213-224.
- Miró i Alaix, C. 2014. "Las Termas Marítimas De La Colonia Barcino." In J.M. Álvarez Martínez, T. Nogales Basarrate, and I. Rodà (eds.) 18th International Congress of Classical Archaeology: Centre and Periphery in the Ancient World. Mérida: Museo Nacional de Arte Romano, 879-882.
- Mitchell, S. and Waelkens, M. 1988. "Cremna and Sagalassus 1987." Anatolian Studies 38: 53.
- Moreno de Vargas, B. 1633. *Historia de la ciudad de Mérida*. Galicia: por la viuda de Alonso Martin Galiciana: Biblioteca Digital de Galicia.
- Morgado Portero, F. 2004. "La gestión del yacimiento arqueoló gico emeritense: una labor de documentación, investigación, cons ervación y difusión (Y II)." *Foro* 36: 1-11.
- Monaghan, J. 1997. *Roman Pottery from York*. York: Archaeology of York, CBA for York Archaeological Trust.
- Morgan, O. 1885. "St Woolos Church, Newport." Archaeologia Cambrensis 5(2): 279–91.
- Nash-Williams, V.E. 1930. "IX. Further Excavations at Caerwent, Monmouthshire, 1923–5." *Archaeologia* 80: 229-288.
- Niblett, R. 1993 "Verulamium since the Wheelers." In S. J. Greep (ed.) *Roman Towns: The Wheeler Inheritance. A Review of 50 Years' Research.* York: Council for British Archaeology (Council for British Archaeology Research Report 93), 78–92.
- Niblett, R. 2001 Verulamium. The Roman city of St. Albans. Stroud: Tempus.
- Niblett, R. 2019. *Map of Verulamium*. St Albans & Hertfordshire Architectural & Archaeological Society. https://www.stalbanshistory.org/archaeology/the-roman-city-of-verulamium/map-of-verulamium.
- Niblett, R., Manning, W., and Saunders, C. 2006. "Verulamium: Excavations within the Roman Town 1986-88." *Britannia* 37: 53-188.
- Niblett, R., and Thompson, I. 2005. *Alban's buried towns: an assessment of St. Albans' archaeology up to AD 1600*. Oxford: Oxbow Books, in association with English Heritage.
- Niniou-Kindeli, V. 2000. "Επαρχία Αποκορώνου. Απτέρα" Αρχαιολογικόν Δελτίον 55 (Χρονικά Β΄ 2): 1037-1040.
- Niniou-Kindeli, V., and Chatzidalis, N. 2016. "The Roman theatre at Aptera: a preliminary report." In J. E. Francis and A. Kouremenos (eds.) *Roman Crete: New Perspectives*. Oxford: Oxbow Books, 127-154.

- Nielsen 1993a. Thermae et Balnea. The Architecture and Culutral History of Roman Public Baths. Vol I The Text, Aarhus: Aarhus University Press.
- Nielsen 1993b. Thermae et Balnea. The Architecture and Culutral History of Roman Public Baths. Vol II Catalogue and Plates, Aarhus: Aarhus University Press.'
- Niewöhner, P. 2015. "Die Südstadtthermen von Milet. Vom kaiserzeitlichen Baderundgang zum byzantinischen Doppelbad. Mit Beiträgen von J. Gorecki und A. Waldner und unter Mitarbeit von D. Göçmen und Ch. Klein." *Archäologischer Anzeiger* 1: 173–235.
- Nocentini, A., Warden, P. G. 2020. "Understanding the Roman Baths at Fiesole: From 3D Documentation to Geometrical and Functional Analysis." In L. Agustín-Hernández, A. Vallespín Muniesa and A. Fernández-Morale (eds.) *Graphical Heritage. Volume 1 History and Heritage.* Cham, Switzerland: Springer (Springer Series in Design and Innovation 5), 142-152.
- Nogales Basarrate, T. 2002. "Aquae Emeritenses: Monumentos e Imágenes del Mundo Acuático en Augusta Emerita." *Empuries* 52: 88-111
- Nogales Basarrate, T. and Álvarez Martínex, J.M. 2014. "Colonia Augusta Emerita. Creación de una ciudad en tiempos de Augusto." *Studia Historica. Historica Antigua* 32: 209-247.
- Noguera Celdrán, J.M., Madrid Balanza, M.J. 2014. "Carthago Nova: Fases e Hitos de Monumentalización Urbana y Arquitectónica (Siglos III A.C.- III D.C.)" Espacio, Tiempo y Forma Serie I. Rrehistoria y Arqueología 7: 13–60.
- Noguera Celdrán, J.M., Soler Huertas, B., Madrid Balanza, M.J., and Vizcaíno Sánchez, J. 2009. "El Foro de *Carthago Nova*. Estado de la cuestión." In J.M. Noguera Celdrán (ed.) *Fora Hispaniae: paisaje urbano, arquitectura, programas decorativos y culto imperial en los foros de las ciudades hispanorromanas*. Murica: Museo Arqueológico de Murcia, 217-302.
- Nolla, J. M. 2000. "Las temas republicanas en Hispania." In C. Ochoa Fernández and V. García Entero (eds.) *Termas romanas en el Occidente del Imperio. Il Coloquio Internacional de Arqueologia en Gijón 1999*. Gijón: VTP, 47-58.
- Nollé, J. 2001. Side im Altertum: Geschichte und Zeugnisse. Bonn: Dr. Rudolf Habelt GmbH (Inschriften griechischer Städte aus Kleinasien 43).
- Núñez Hernández, S. I. 2008. "Conjunctos termales públicos en ciudades romanas de la Cuenca del Buero." *Sephrus* 62: 163-193.
- Öğüş, E. 2015. "A late-antique fountain at Aphrodisias and its implications for spoliation practices." *Journal of Roman Archaeology* 28: 302-324.
- Olcina Doménech, M. H. 2007. "Las termas de Valentia y Lucentum y los baños itálicos." In A. Ribera i Lacomba, M. H. Olcina Doménech, C. Ballester Martínez (eds.) *Pompeya bajo Pompeya. Las excavaciones en las Casa de Adriadna*. Alicante: Museo Arqueológico de Alicante, 134-139

- Olcina Doménech, M., Guilabert Mas, A., and Tendero Porras, E. 2012. "Tossal de Manises. Areas del foro y de las termas de Popilio." In A. Guardiola Martínez and F.E. Tendero Fernández (eds.) *Intervenciones arqueológicas en la provincia de Alicante. 2010.* Alicant: Museo Arqueológico de Alicante, 1-25.
- Orengo, H.A., and Cortés, A. 2014. "The Augustan Temple and Forum of the Colony of Barcino: A 90 Degree Turn." *Oxford Journal of Archaeology* 33(1): 89–107.
- Orengo, H.A., and Miró i Alaix, C. 2013. "Reconsidering the water system of Roman Barcino (Barcelona) from supply to discharge." *Water Hist* 5: 243–266.
- Osland, D. 2016. "Abuse or Reuse? Public Space in Late Antique Emerita." *American Journal of Archaeology* 120(1): 67-97.
- Ossi, A. 2006. *New Plan of Pisidian Antioch*. Building a New Rome. The Imperial Colony of Pisidian Antioch. An Online Exhibition of the Kelsey Museum of Archaeology. The Kelsey Museum of Archaeology. https://www.lsa.umich.edu/kelsey/antioch/A2/antiochplan.html
- Ottaway, P., 1993. Book of Roman York. London: Batsford/English Heritage.
- Ottaway, P. 1999. "York: the study of a late Roman *colonia*." In H. Hurst(ed.) *The* Coloniae *of Roman Britain: New Studies and a Review. Papers of the conference held at Glouchester on 5-6 July 1997*. Portsmouth, R: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 36), 136-151.
- Ottaway, P. 2004. Roman York. Stroud: Tempus.
- Oulkeroglou, A. 2016. Οι λουτρικές εγκαταστάσεις στη Μακεδονία κατά τη ρωμαϊκή αυτοκρατορική και την πρωτοβυζαντινή περίοδο/The bathing Facilities in Macedonia during the Roman Imperial and Early Byzantine Period. Ph.D. Dissertation, Aristotle University of Thessaloniki.
- Oulkeroglou, A. 2017. "Public Baths in Roman Dion (Colonia Iulia Augusta Diensis)." *Journal of Greek Archaeology* 2: 287-323.
- Oulkeroglou, A., Papadopoulos, S., and Giamali, I. 2019. "The Roman aqueduct of Philippi." *Journal of Greek Archaeology* 4: 229-251.
- Owens E. J. 1991. The City in the Greek and Roman World. London: Routledge.
- Özsait, M., Labarre, G., Özsait, N. 2009. "Rhodiapolis Baths: The First Evalutaion Following the Excavations and its Contribution to the Knowledge on Lycian Baths Architecture and Technique." *Adalya* 12: 231-260.
- Öztaner, S. H. 1999. "The Nymphaeum at Alexandria Troas." In E. Schwertheim (ed.) *Asia Minor Studien 33. Die Troas. Neue Forschungen III.* Bonn: Habelt, 27-36.

- Packer, J. E. 1971. *The Insulae of Imperial Ostia*. Rome: American Academy in Rome (Memoirs of the American Academy in Rome 31).
- Pagano, M. 1988, "Iscrizione della statua di M. Nonio Balbo trovata davanti alle Terme Suburbane." *Rivista di Studi Pompeiani* 2: 238–239.
- Pagano, M., 1996. "La nuova pianta della città e di alcuni edifici pubblici di Ercolano." *Cronache ercolanesi* 26: 229-62.
- Pappalardo, U. and Manderscheid, H., 1998. "Le Terme Suburbane Di Ercolano Architettura Gestione Idrica E Sistema Di Riscaldamento." *Rivista Di Studi Pompeiani* 9: 173–92.
- Pappalardo, U., and Varriale, I. 2006. The Suburban baths of Herculaneum. In G. Wiplinger (ed.) Cura Aquarum in Ephesus: Proceedings of the Twelfth International Congress on the History of Water Management and Hydraulic Engineering in the Mediterranean Region Ephesus. Dudley, Mass: Peeters, 423-430.
- Pavía Page, M. 2018. Thermae Hispaniae Citerioris. Las Termas del Puerto de Carthago Nova: Análisis Arquitectónico y Tipológico, e Inserción en el Contexto de la Arquitectura Termal Pública de Hispania Citerior. Ph.D. Dissertation, Universidad De Murcia.
- Pearson, C. 2020. *The Architecture of Bathing: Body Landscape Art*. Cambridge Mass.: MIT Press.
- Pensabene, P. 1989. Il Teatro romano di Ferento. Rome: Erma di Bretschneider.
- Pierrepont White, W. 1986-7. "Plans of Ncipolis in the Archives of the Scuola Archaeologica Italiana di Atene." *Annuario dela Scuola Archaeologica di Atene* 64-65: 295-325.
- Pirson, F. 2007. "Pergamon Bericht über die Arbeiten in der Kampagne 2006." *Archäologischer Anzeiger* 2: 13-69.
- Pitt, R., 2012. "Archaeological exhibits from recent excavations in Athens." *Archaeological Reports* 58: 28-29.
- Potter, T. W. and Johns, C. 1992. Roman Britain. Berkeley: University of California Press.
- Provost, S. 2001. "City Wall and Urban Area in Macedonia: The Case of Philippi." In L. Lavan (ed.) *Recent research in late-antique urbanism*. Portsmouth, RI: Journal of Roman Archaeology (Journal of Archaeology Suppl. 42), 123-136.
- Quilici Gigli, S. 2020. "Monumentalizzazione di una colonia latina: le terme centrali nella forma di Cales." In S. Quilici Gigli and L. Quilici (eds.) *Atlante Tematico di Topografia Antica: Roma, Urbanistica, Monumenti Territorio e Infrastrutture*. Rome: L'Erma di Bretschneider, 29-56.
- Radt, W. 1999. *Pergamon. Geschichte und Bauten einer antiken Metropole*. Darmstadt: Primus Verlag.

- Raeck, W., and Rumscheid, F. 2010. "Die Arbeiten in Priene im Jahre 2009." *Kazı Sonuçları Toplantısı* 32(3): 58-79.
- Raja, R. 2012. Urban Development and Regional Identity in the Eastern Roman Provinces, 50 BC-AD 250: Aphrodisias, Ephesos, Athens, Gerasa. Copenhagen: Museum Tusculanum Press.
- Ramos Molina, A., and Tendero Porras, M. 2000. "Dos Nuevos Conjuntos Termales En Iilici (La Alcudia, Elche)." In C. Femández Ochoa and V. Garcia Entero (eds.) *Termas romanas en el Occidente del Imperio. Il Coloquio Internacional de Arqueologia en Gijón 1999*. Gijón: VTP, 245-250.
- Ratté, C. 2000. 'New Research on the City Plan of Ancient Aphrodisias.' In D. C. Hopkins (ed.) *Across the Anatolian Plateau: Readings in the Archaeology of Ancient Turkey*. Boston: American Schools of Oriental Research (Annual of the American Schools of Oriental Research 57), 197-203.
- Ratté, C., 2002. "The Urban Development of Aphrodisias in the Late Hellenistic and Early Imperial Periods. In B. Christof (ed.) *Patris Und Imperium: Kulturelle Und Politische Identität in Den Städten Der Römischen Provinzen Kleinasiens in Der Frühen Kaiserzeit: Kolloquium Köln November 1998*. Leuven: Peeters, 5-32.
- Ratté, C. 2006. "Aphrodisias." In W. Radt (ed.) *Stadtgrabungen und Stadtforschung im westlichen Kleinasien: Geplantes und Erreichtes. Internationales Symposion 6./7. August 2004 in Bergama (Turkey).* Istanbul: Ege Yayınları, 37-48.
- RCHME. 1962. An Inventory of the Historical Monuments in City of York, Volume 1, Eburacum, Roman York. London: Her Majesty's Stationery Office.
- Reber, K, Fachard, S., Boukaras, K., Theurillat, T., Dubosson, B., Ackermann, G., Duret, M., and Tettaamanti, R. 2012. "Aktivitäten der Schweizerischen Archäologischen Schule in Griechenland 2011." *Antike Kunst* 55: 138 152.
- Reber, K., Ackermann, G., Tettamanti, R., Pop, L., Knoepfler, D., Karapaschalidou, A., Krapf, T., and Theurillat. T. 2018. "Les activités de l'École suisse d'archéologie en Grèce en 2017. Le Gymnase d'Éretrie et l'Artémision d'Amarynthos." *Antike Kunst* 61: 123-137.
- Rebaudo, L. 2004. "Thermae felices Constantinianae. Contributo all'interpretazione dell'edificio pubblico della Braida Murada (Aquileia)." Aquileia Nostra 75: 273-314.
- Reis, M.P. 2004. Las termas y balnea romanos de Lusitania. Madrid: Ministerio de Cultura.
- Reis, M.P. 2014. De Lusitaniae Urbium Balneis. Estudo sobre as termas e balneários das cidades da Lusitânia, 2 vols. PhD. Dissertation, Universidade de Coimbra.
- Reis, M.P., De Man, A., Correia, V.H. 2011. "Conimbriga." In J.A. Remolá and J. Acero. (eds.) La gestión de los residuos urbanos en Hispania, Xavier Dupré Raventós (1956-2006) In Memoriam. Anejos de Archivo Español de Arqueología LX. Mérida: CSIC, 181-201.

- Münster University. 2020. *Alexandria Troas Stadtplan*. Research Center of Asia Minor. https://www.uni-muenster.de/AsiaMinor/projekte/grabung-at/projekte/at-karte.html
- Revell, L. 2007. "Military Bath-Houses in Britain: A Comment." *Britannia* 38: 230-37.
- Revell, L. 2010. "Romanization: A Feminist Critique." In A. Moore, G. Taylor, E. Harris, P. Girdwood, and L. Shipley (eds). *TRAC 2009: Proceedings of the Nineteenth Annual Theoretical Roman Archaeology Conference, Michigan and Southampton 2009.* Oxford: Oxbow Books, 1-10.
- Ribera i Lacomba, A. 2006. "The Roman Foundation of Valencia. The town in the Roman republic period (II-I centuries BC.)." In L. Abad, S. Keay, S. Ramallo (eds). *Early Roman Towns in Hispania Tarraconensis*. Portsmouth, RI: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 62) 75-89.
- Richardson, J. 1996. *The Romans in Spain*. Cambridge, Mass.: Blackwell.
- Rodà, I. 2016. "Tarraco y Barcino en el Alto Imperio." Revista de Historiografía 25: 245-272.
- Rogers, A. 2012. "Venta Silurum (Caerwent)." In R.S. Bagnall (ed.) *The Encyclopedia of Ancient History*, First Edition. Blackwell Publishing Ltd, 6960–6961.
- Rogers, A. 2013a. "Verulamium (St. Albans)." In R.S. Bagnall (ed.) *The Encyclopedia of Ancient History*, First Edition. Blackwell Publishing Ltd, 6969-6971.
- Rogers, A. 2013b. "Londinium (London)." In R.S. Bagnall (ed.) *The Encyclopedia of Ancient History*, First Edition. Blackwell Publishing Ltd, 4144-4146.
- Roldán, L., Blánquez, J., and Bustamante, M. 2018. "Las termas urbanas de Baelo Claudia. Nuevos enfoques de estudio a través de las técnicas constructivas." *Al Qantir* 21: 59-71.
- Romagnoli, G. 2006. Ferento e la Teverina viterbese. Insediamenti e dinamiche del popolamento tra il X e il XIV secolo. Viterbo: Università degli Studi della Tuscia (Daidalos: studi e ricerche del Dipartimento di Scienze del mondo antico 1)
- Romero Vera, D. 2020. "Termas públicas en la Hispania de época antonina: una aproximación a su secuencia evolutiva." *Pyrenae* 51(2): 69-98.
- Romano, D. G. 2003. "City Planning, Centuriation, and Land Division in Roman Corinth: Colonia Laus Iulia Corinthiensis & Colonia Iulia Flavia Augusta Corinthiensis." *Corinth* 20: 279–301.
- Rook, T. 2002. *Roman Baths in Britain*. Buckinghamshire UK: Shire Publications (Shire archaeology 69).
- Rousseau, V. 2019. "Reflection, Ritual, and Memory in the Late Roman Painted Hypogea at Sardis." *Arts* 8(103): 1-36

- Rowsome, P. 1999. "The Huggin Hill baths and bathing in London: barometer of the town's changing circumstances?" In J. DeLaine and D.E. Johnston (eds.) Roman Baths and Bathing: Proceedings of the First International Conference on Roman Baths Held at Bath, England, 30 March-4 April, 1992. Portsmouth, RI: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 37), 262-277.
- Royal Holloway, University of London. n.d. *Vicus Laurentium Augustanorum*. (https://intranet.royalholloway.ac.uk/classics/research/laurentine-shore-project/vicus-augustanus/home.aspx)
- Rubinich, M. 2009. "Le Grandi Terme di località Braida Murada." In F. Ghedini, M. Bueno, and M. Novello (eds.) *Moenibus et portu celeberrima. Aquileia: storia di una città*. Rome: Istituto poligrafico e Zecca dello Stato, 108-110.
- Rubinich, M. 2011. "New Technologies for the 'Great baths' of Aquileia: Results and Prosepects." In V. Roberto (ed.) *Proceedings of the 1st Workshop on The New Technologies for Aquileia. Aquileia, Italy, May 2, 2011.* Ceur (Workshop Proceedings 806), K1-K9.
- Rubinich, M. 2014. "Le 'grandi terme' costantiniane." Aquileia Nostra 83-84: 97-117.
- Rubinich, M. 2019. "Gli scavi dell'Università di Udine alle Grandi Terme di Aquileia (2002-2018)." *Quaderni Friulani di Archeologia* 29(1): 127-132.
- Ruiz-Bueno, M.D., and Potrillo Gómez, A. 2020. "Arquitectura y urbanismo de *Colonia Patricia* en época adrianea: nuevas aportaciones" *SPAL Revista de Prehistoria y Arqueología* 29(2): 129-145.
- Sabelli, R. 1995. "Le Terme (di Fiesole)." In L. Marino and C. Nenci (eds.) *L'area archeologica di Fiesole: rilievi e ricerche per la conservazione*. Firenze: Alinea (Restauro archeologico 3), 63-66.
- Şahin. S. 1999. Die Inschriften von Perge. Bonn: Dr. Rudolf Habelt GMBH.
- Şahin, F. 2008. "Der neronische Leuchtturm und die vespasianischen Thermen von Patara." *Gephyra* 5: 1-32.
- Sala Sellés, F. 1992. La Tienda Del Alfarero Del Yacimiento Ibérico De La Alcudia (Elche-Alicante). Alicante: Publicaciones de la CAM-Fundación cultural.
- Saldana, M. 2015. Cave and City: A Procedural Reconstruction of the Urban Topography of Magnesia on the Maeander. Ph.D. Dissertation, UCLA.
- Salvemini, F. et al. 2014. "Residual strain mapping of Roman styli from Iulia Concordia, Italy." *Materials Characterization* 91: 58-64.
- Sancaktar, H. 2018." Arykanda Antik Kenti'ndeki Athena Tapınağı'nın Lokalizasyonuna İlişkin Öneriler/Suggestions as to the Localization of the Temple of Athena in the Ancient City of Arycanda." *Cedrus* 6: 359-375.

- Sánchez, M. A. P., Bernal-Casasola, D., Domínguez-Bella, S., Macias, A. D., Álvarez, J. Á. E., Rodríguez, J. J. D., and Salgado, M. L. M. 2019. "El mosaico de las Termas Marítimas de Baelo Claudia: contexto, iconografía, arqueometría y restauración." *Anales de Arquelogía Cordobesa* 30: 209-256.
- Sauer, E., 2004. "Not just small change coins in Mithraea." In M. Martens and G. De Boe (eds.) Roman Mithraism: the evidence of the small finds. Proceeding of the International Conference on 7-8 November 2001, Tienen, Belgium. Brussels: Institute for the Archaeological Heritage of Flanders, 327-53.
- Scampoli, Emiliano. 2010. *Firenze, archeologia di una citta (secoli I a.C. XIII d.C.)*. Firenze: Firenze University Press.
- Schafer, J. 1981. *Phaselis: Beiträge zur Topographie und Geschichte der Stadt und ihrer Häfen*. Tübingen: Verlag Ernst Wasmuth.
- Scherrer, P. (ed.). 1995. Ephesos. Der neue Führer: 100 Jahre österreichische Ausgrabungen 1895-1995. Vienna: Das Institut.
- Scherrer, P. 2001. "The historical Topography of Ephesos." In D. Parrish, H. and Abbasoğlu (eds.) *Urbanism in Western Asia Minor: New Studies on Aphrodisias, Ephesos, Hierapolis, Pergamon, Perge, And Xanthos.* Portsmouth, R.I.: Journal of Roman Archaeology (Journal of Roman Archaeology Suppl. 45), 57-95.
- Schwertheim, E., and Tanriöver, A. 2010. "Die Ausgrabungen des Jahre 2008 in Alexandria Troas." *Kazi Sonuclari Toplantisi* 31(2): 77-94.
- Scott, R.T., De Giorgi, A.U., Crawford-Brown, S., Glennie, A., and Smith, A. 2015. "The Cosa Excavations: season 2013." *Orizzonti: Rassegna di archeologia* 16: 11-22.
- CNNTÜRK. 2019, April 28. 2'nci yüzyıldan kalma Roma hamamı kalıntılarını yosun kapladı. CNNTÜRK.com. https://www.cnnturk.com/yerel-haberler/izmir/konak/2nci-yuzyildan-kalma-roma-hamami-kalintilarini-yosun-kapladi-984988
- Sève, M. 1985. "Travaux de l'EFA à Philippes en 1984." *Bulletin de correspondance hellénique* 109: 864–73.
- Sevillano Fuertes, A. and Vidal Encinas, J. M. 2000. "Las termas mayores de Astorga." In C. Fernández Ochoa and V. García Entero (eds.) *Termas romanas en el Occidente del Imperio. Il Coloquio Internacional de Arqueologia en Gijón 1999.* Gijón: VTP, 199-205.
- Sevillano Fuertes, A. and Vidal Encinas, J. M. 2001. "Aspectos de la implantación y Desarrollo urbanos de *Asturica Augusta* durante el alto imperio." In L. Hernández Guerra, L.S. San Eustaquio, and J.M. Solana Sáinz (eds.) *La Península Ibérica hace 2000 años: Actas del I Congreso Internacional de Historia Antigua*. Valladolid: Universidad de Valladolid, 655-668.

- Sevillano Fuertes, A. and Vidal Encinas, J. M. 2002. *Urbs magnífica. Una aproximación a la arqueología de Asturica Augusta (Astorga, León)*. Caja España, Astorga: Ayuntamiento de Astorga.
- Sewell, J. 2010. *The Formation of Roman Urbanism, 338-200 BC: Between Contemporary Foreign Influence and Roman Tradition*. Portsmouth, R.I.: Journal of Roman Archaeolog (Journal of Roman Archaeology Suppl. 79).
- Shear, T.L. 1969. "The Athenian Agora: Excavations of 1968." Hesperia 38(3): 382-417.
- Shear, T.L. 1997. "The Athenian Agora: Excavations of 1989-1993." *Hesperia* 66(4): 495-548
- Shotter, D. 2004. Roman Britain, second edition. London: Routledge.
- Sillières, P. 1995. *Baelo Claudia: una ciudad romana de la Bética*. Collection de la Casa de Velázquez 61. Madrid: Casa de Velázque; Junta de Andalucía.
- Sebastian Sommer, C. 1986. "Review of Silchester: Excavations on the Defences 1974-80 by M. Fulford." *Germania* 64(2): 641-645.
- Sommer, M. 2005. "The archaeology and history of Roman Syria. Review of Roman Syria and The Near East by Kevin Butcher." *Journal of Roman Archaeology* 18: 726-728.
- Soren, D. 1982. "Excavations at Mirobriga, the 1982 Season. The Forum Area." Muse 16: 36-44
- Soriano, J. 2010, September 23. El Foro también tenía termas. Hoy 90 Anos. https://www.hoy.es/v/20100923/merida/foro-tambien-tenia-termas-20100923.html?ref=https%3A%2F%2Fwww.google.com%2F
- Sorrell, Alan. 1976. Roman Towns in Britain. London: A.T. Batsford Ltd.
- Spanu, M. 2014. "Ferento romana." Atlante Tematico di Topografia Antica 24: 121-144.
- St. John Hope, W., and Fox, G.E. 1905. "XVII. Excavations on the site of the Roman city at Silchester, Hants, in 1903 and 1904." *Archaeologia* 59(2): 333-370.
- Stambaugh, J.E. 1988. The Ancient Roman City. Baltimore: Johns Hopkins University Press
- Stampolidēs, N. C., Papadopoulou, E., Laurentzatou, I.G., and Phappas, I. (eds.), Maria Xanthopoulou (trans.). 2019. *Crete. Emerging cities: Aptera Eleutherna Knossos.* Herakleion. Museum of Cycladic Art. Hellenistic Ministry of Culture and Sports.
- Stefanidou-Tiveriou, Τ. 2009. "Οικοδομήματα αυτοκρατορικής λατρείας στη Θεσσαλονίκη. Ζητήματα τοπογραφίας και τυπολογίας." Annuario della Scuola Archeologica di Atene e delle missioni italiane in Oriente 87: 613-34.
- Stendon, E.C. and Coulton, J.J. 1986. "Oenoanda: The Water Supply and Aqueduct." *Anatolian Studies* 36: 15-59.

- Stöger, H. 2011. Rethinking Ostia: a Spatial Enquiry into the Urban Society of Rome's Imperial Port-town. Ph.D. Dissertation, University of Leiden.
- Tarlano, F., Castoldi, M., and Donnici, F. 2019. "Grumentum (Grumento Nova, PZ) Il complesso delle Terme c.d. Imperiali di Grumentum: dall'analisi del monumento allo studio degli apparati decorativi. Problematiche e prospettive di ricercar." In M. Merdi and A. Pizzo (eds.) Le Terme Pubbliche nell'Italia romana (II secolo a.C. fine IV d.C.). Architettura, tecnologia e società, Seminario internazionale di studio, Roma, 4-5 ottobre 2018. Rome: Roma TrE-Press, 175-188.
- Tendero Porras, M. 2012. "La Alcudia. Casas ibéricas. Sector 4C (Elche)." In A. Guardiola Martínez and F.E. Tendero Fernández (eds.) *Intervenciones arqueológicas en la provincia de Alicante 2011*. Alicante: Sección de Arqueología del Ilustre Colegio Oficial de Doctores y Licenciados en Filosofía y Letras y en Ciencias de Alicante, 1-10.
- Tendero Porras, M. 2015. "Ilici. L'Alcúdia d'Elx." La Rella 28: 111-142.
- Tendero Porras, M., and Ronda Femenia, A.M. 2014a. "I. La Ciudad Romana de *Ilici* (L'alcúdia De Elche, Alicante)." In M. H. Olcina Domenech (ed.) *Ciudades Romanas Valencianas*. *Actas de las Jornadas sobre Ciudades Romanas Valencianas*. *Actualidad de la investigacion historicoarqueologica*. *celebradas en el MARQ los días 3 y 4 de diciembre de 2013*. Alicante: MARQ, Museo Arqueológico de Alicante, Diputación de Alicante. 225-242.
- Tendero Porras, M., and Ronda Femenia, A.M. 2014b. "Capítulo 9. Nuevos datos sobre la Colonia Iulia Ilici Augusta (s. II-IV d.C.)." In S. F. Ramallo Asensio and A. Quevedo Sánchez (eds) Las ciudades de la Tarraconense oriental entre los s. II-IV d.C.: evolución urbanística y contextos materiales. Murcia, Universidad de Murcia: 275-320.
- Tendero Porras, M., and Ronda Femenia, A.M. 2018. "Las Termas Occidentales de *Ilici*. Redescubrimiento y nuevas aportaciones arqueológicas." In J.M. Noguera Celdrán, V. García Entero, and M. Pavía Page (eds.) *Congreso Internacional. Termas Publicas de Hispania. Murcia-Cartagena del 19 al 21 de abril de 2018. Pre-Actas.* Murcia: Editorial UNED, 73-74.
- Thaler, H. 2009. "Gli scavi nelle terme imperiali." In A. Mastrocinque (ed.) *Grumentum romana: convegno di studi, Grumento Nova, Potenza: salone del Castello Sanseverino, 28-29 giugno 2008*. Moliterno: ValenBna Porfidio Editore, 322-338.
- Theurillat, T., Ackermann, G, Zurbriggen, S. 2018. "From Hellenistic *Loutron* to Roman *Thermae*: The Romanization of Baths at Eretria." In V. Di Napoli, F. Camia, V. Euangelidēs, D. Grigoropoulos, D. Rogers, and S. Vlizos (eds.) *What's New in Roman Greece? Recent Work on the Greek Mainland and the Islands in the Roman Period. Proceedings of a Conference Held in Athens, 8–10 October 2015.* Athens: National Hellenic Research Foundation/Institute of Historical Research, 249-262.
- Thomas, E. 2013. "Translating Roman architecture into Greek regional identities." In L. Van der Stockt, P. Schubert, P. Ducrey and P. Derron (eds.) Les Grecs héritiers des Romains: huit

- exposés suivis de discussions: Vandoeuvres Geneve 27-31 Aout 2012. Geneve: Foundation Hardt (Entretiens sur l'Antiquité classique 59), 147-202.
- Thompson, H.A., 1948. "The Excavation of the Athenian Agora Twelfth Season: 1947." *Hesperia* 17(3): 149-196.
- Thompson, H.A., 1954. "Excavations in the Athenian Agora: 1953." Hesperia 23(1): 31-67.
- Thür, H. 2004. "Ephesos Bauprogramme fur den Kaiser." In E.-L. Schwandner and K. Rheidt (eds.) *Macht der Architektur, Architektur der Macht. Bauforschungskolloquium in Berlin vom 30. Oktober bis 2. November 2002.* Mainz am Rhein: P. von Zabern (Diskussionen zur archäologischen Bauforschung Bd. 8), 220–230.
- Tocco, G. 1975. "Saggi di scavo nella città e nella necropoli di Cuma" In Orfismo in Magna Grecia: Atti Del Quattordicesimo Convegno Di Studi Sulla Magna Grecia Taranto 6-10 Ottobre 1974. Napoli: Arte tipografica, 485-496
- Tocco, G. 1999. "Spazi pubblici a Velia. L'agorà o un santuario." In F. Krinzinger and G, Tocco (eds.) Neue Forschungen in Velia. Akten des Kongresses "La ricerca archeologica a Velia" (Rom, 1.-2. Juli 1993). Vienna: Verlag der Österreichischen Akademie der Wissenschaften, 61-65.
- Tomlinson, R.A. 2014. *Argos and the Argolis. From the End of the Bronze Age to the Roman Occupation*. London: Routledge.
- Torelli, M. 1982. Etruri, Second Edition. Rome: Laterza.
- Travlos, J. 1971. Pictorial Dictionary of Ancient Athens. New York: Praeger.
- Trümper, M. 2013a. "Introduction." In S.K. Lucore and M. Trümper (eds). *Greek Baths and Bathing Culture. New Discoveries and Approaches*. Leuven: Peeters (BABesch Supplement 23), 1-9.
- Trümper, M. 2013b. "Urban Context of Greek Public Baths." In S.K. Lucore and M. Trümper (eds). *Greek Baths and Bathing Culture. New Discoveries and Approaches*. Leuven: Peeters (BABesch Supplement 23), 33-72.
- Trümper, M. 2015. "Modernization and Change of Function of Hellenistic Gymnasia in the Imperial Period: Case-Studies Pergamon, Miletus and Priene." In P. Scholz and D. Wiegandt (eds.) *Das kaiserzeitliche Gymnasion*. Berlin, München, Boston: De Gruyter, 167-221.
- Trümper, M. 2018. "Gymnasium, Palaestra, Campus and Bathing in Late Hellenistic Pompeii. A Reassessment of the Urban Context of the Republican Baths (VIII 5, 36)." In U. Mania and M. Trümper (eds.) *Development of Gymnasia and Graeco-Roman Cityscapes*. Berlin: Edition Topoi (Berlin Studies of the Ancient World 58), 87-113.

- Tsiolis, V. 2001. "Las Termas de Fregellae. Arquitectura, tecnología y cultura balnear en el Lacio durante los siglos III y II a.c." *Cuadernos de Prehistoria y Arqueología de la Universidad Autónoma de Madrid* 27: 85-114.
- Tsiolis, V. 2006. "Fregellae: il complesso termale e le origini degli edifici balneari urbani nel mondo romano." In M. Osanna and M. Torelli (eds.) *Sicilia ellenistica, consuetudo italica. Alle origini dell'architettura ellenistica d'occidente. Spoleto, Complesso monumentale di S. Nicolo 5-7 novembre 2004.* Rome: Edizioni dell'Ateneo, 243-255.
- Tsiolis, V. 2013. "The baths at Fregellae and the Transition from *Balaneion* to *Balneum*." In S.K. Lucore and M. Trümper (eds). *Greek Baths and Bathing Culture. New Discoveries and Approaches*. Leuven: Peeters (BABesch Supplement 23), 89-112.
- Tsirkim, Y. B. 1989. "The veterans and the romanization of Spain." *Gerión* 7: 137-147.
- Turci, Marcello, 2021. "Le iscrizioni delle Terme di porta Marina rinvenute da Gavin Hamilton. Nuovi dati per la contestualizzazione di *CIL* XIV, 98 e *CIL* XIV, 137." In M.L. Caldelli, N. Laubry, and F. Zevi (eds.) Intorno all'opera di Mireille Cébeillac-Gervasoni. Atti del Quinto seminario ostiense, Roma-Ostia, 21-22 febbraio 2018. Rome: L'École française de Rom 133-146.
- Tuttahs, G. 2007. Milet und das Wasser: ein Leben in Wohlstand und Not in Antike, Mittelalter und Gegenwart. Siegburg: Deutsche Wasserhistorische Gesellschaft.
- Vaglieri, D. 1913. "Ostia Scavi nella necropoli. Pianta delle Terme. Scavi nella via della Fullonica, in quella delle Corporazioni, e nel piazzale dietro il Teatro." *Notizie degli scavi di antichità* 1913: 10-16.
- Vanderspoel, J. 2010. "Provincia Macedonia." In J. Roisman and I. Worthington, I (eds). *A Companion to Ancient Macedonia*. Chichester: Wiley-Blackwell, 251-275.
- Vaquerizo Gil, D. 2018. "Vivir en la Córdoba romana." In J. M. Escobar Camacho and D. Vaquerizo Gil (eds.) Los Barrios de Córdoba en La Historia de la Ciudad. De Los Vici Romanos a Los Arrabales Islámicos. Córdoba: Real Academia De Ciencias, Bellas Letras y Nobles Artes de Córdoba, 33-116.
- Vargas, J. 2006. "Los cambios en el paisaje suburbano: la instalación de unas termas." In Foro. Boletín informativo del Consorcio de la Ciudad Monumental, Histórico-Artística y Arqueológica de Mérida 44: 4-5.
- Vecchio, C.L. 2007. "Le Terme Romane del Quartiere Meridonale di Velia." In L. Quilici and S. Quilici Gigli (eds.) *Architettura Pubblica e Privata nell'Italia Antica*. Rome: L'Erma di Bretschneider, 89-132.
- Velenis. G. and P. Adam-Veleni. 1989. "Ρωμαϊκό θέατρο στη Θεσσαλονίκη." Το αρχαιολογικό έργο στη Μακεδονία και Θράκη (ΑΕΜΘ) 3: 241-256.

- Verzár-Bass, M., and Mian, G. 2003. "L'assetto urbano di Aquileia." In J. Ortalli and M. Heinzelmann (eds.) Abitare in città. La Cisalpina Tra Impero a Medioevo: Convegno Tenuto a Roma Il Quattro E Cinque Novembre 1999/Leben in Der Stadt: Oberitalien Zwischen Römischer Kaiserzeit Und Mittelalter: Kolloquium Am Vierten Und Fünften November 1999 in Rom. Wiesbaden: Reichert, 73-94.
- Vickers, M. 1972. "Hellenistic Thessaloniki." Journal of Hellenic Studies 92: 156-170.
- Vigoni A. 2006. "Il canale interno di Iulia Concordia. Dati storici, archeologici e topografici." In D. Morandi Bonacossi, E. Rova, F. Veronese, P. Zanovello (eds.) *Tra Oriente e Occidente. Studi in inore di Elena di Filippo Balestrazzi*. Padova: S.A.R.G.O.N Editrice e Libreria, 451–68.
- Vink, M. C. V. 1997. "Urbanization in Late and Sub-Geometric Greece. Abstract Considerations and Concrete Case Studies of Eretria and Zagora." In H.D. Andersen (ed.) *Urbanization in the Mediterranean in the 9th to 6th Centuries BC*. Copenhagen: Museum Tusculanum Press, 111-142.
- Vitti. M. 1996. Η πολεοδομική εξέλιξη της Θεσσαλονίκης. Από την ίδρυσή της έως τον Γαλέριο/The Urban Development of Thessaloniki. From its Foundation to Galepius. Athens: Archaiologikē Hetaireia.
- Vitti, P. 1999. "Le terme." In E. Greco (ed.) *Paestum IV. Forum Ouest-Sud-Est.* Rome: L'École Française de Rome, 29-35.
- Vitti, P. 2019. "Paestum (Capaccio-Paestum, SA). Le Terme dei Venneiani." In M. Medri, A. Pizzo (eds.) *Le Terme Pubbliche nell'Italia romana (II secolo a.C. fine IV d.C.). Architettura, tecnologia e società, Seminario internazionale di studio, Roma, 4-5 ottobre 2018*. Rome: Roma TrE-Press, 286-299.
- Vivó, D and Palahí, L. 1995. "Els precedents. L'edifici termal." In J.M. Nolla, J. Sagrera (eds.) Ciuitatis impuritanae coernenterla. Les necròpolis tardanes de la Neapolis Girona: Universitat de Girona (Estudi General 15), 61-84.
- Volpicella, D. 2006-2007. "Cuma: Le terme centrali. Un preliminare inquadramento cronologico delle fasi edilizie." *Annali di archeologia e storia antica* 13–14: 187–220.
- von Diest, W. 1913. *Nysa ad Maeandrum, nach Forschungen und Aufnahmen in den Jahren* 1907 und 1909. Berlin: G. Reimer (Jahrbuch des Deutschen Archäologischen Instituts 10).
- Wacher, J. 2015. The Towns of Roman Britain, Second Edition. Abingdon, Oxon: Routledge.
- Waelkens, M. 2009. Sagalassos–Jaarboek 2008. Het kristallen jubileum van twintig jaar opgravingen. Leuven: Peeters.
- Waelkens, M, Richard, J., Poblome, J., Jacobs, I., Uytterhoeven, I., Uleners, H., Van Beeumen, R., Talloen, P., Clayeys, J., Torun, E., and Ercan, S. 2013. "The 2013 Excavations and Restoration Activities at Sagalassos." Kazı Sonuçları Toplantısı 36(2): 35-60.

- Wallace-Hadrill, A. 2011. *Herculaneum: Past and Future*. London: Franis Lincoln Limited Publishers.
- Ward-Perkins J. B. 1974. *Cities of Ancient Greece and Italy: Planning in Classical Antiquity*. New York: G. Braziller.
- Warner Slane, S., Biers, W. R., Biers, J. C., and Soren, D. 1983. "Mirobriga: the 1983 Season." *Muse* 17: 38-63.
- Wassenhoven, M.-E. *The Bath in Greece in Classical Antiquity: The Peloponnese*. Oxford: Archaeopress.
- Webster, G. 1988. "Wroxeter (Viroconium)." In G. Webster (ed.) Fortress into City. The Consolidation of Roman Britain first century AD, London: Batsford, 120-144.
- Webster, G. 1993. "The City of Viroconium (Wroxeter): its military origins and expansion under Hadrian." In S. J. Greep e(d.) *Roman Towns: The Wheeler Inheritance. A Review of 50 Years' Research*. York: Council for British Archaeology (Council for British Archaeology Research Report 93), 50–55.
- Webster, G. and Chadderton, J. (ed.). 2002. *The Legionary Fortress at Wroxeter. Excavations by Graham Webster, 1955-85*. London: English Heritage (English Heritage Archaeological Report 19).
- Webster, J. 2001. "Creolizing the Roman Provinces." *American Journal of Archaeology* 105(2): 209-225.
- Webster, P. and Wilson, P. 2003. "An early fort at Caerwent? A review of the evidence." In J.S. Wacher and P.R. Wilson (eds.) *The Archaeology of Roman Towns: Studies in Honour of John S. Wacher*. Oxford: Oxbow Books, 214-220.
- White, R.H. and Barker, P. 1998. Wroxeter: Life and Death of a Roman City. Stroud, Tempus.
- Williams, T. 1993. *Public buildings in the south-west quarter of Roman London*. London: Museum of London and Council for British Archaeology (The Archaeology of Roman London Volume 3, CBA Research Report 88).
- Wilson, A.I. 2013. "The aqueduct of Butrint." In I.L. Hansen, R. Hodges, and S. Leppard (eds.) Butrint 4. The Archaeology and Histories of an Ionian Town. Oxford: Oxbow Books, 77-96.
- Wiseman, F.J. 1956. Roman Spain. An Introduction to the Roman antiquities of Spain and Portugal. London: G. Bell & Sons Ltd.
- Wiseman, J. 1970. "The Fountain of the Lamps." Archaeology 23(2): 130-137.
- Woolf, G. 1994. "Becoming Roman, Staying Greek: Culture, Identity and the Civilizing Process in the Roman East." *Proceedings of the Cambridge Philological Society* 40: 116-143.

- Woolf, G. 1998. *Becoming Roman: The Origins of Provincial Civilization in Gaul*. Cambridge: Cambridge University Press.
- Wright, R.P. 1948. "Roman Britain in 1947: I. Sites Explored: II. Inscriptions." JRS 38: 81-104.
- Wulf, U. 1994. "Der Stadtplan von Pergamon: zu Entwicklung und Stadtstruktur von der Neugründung unter Philetairos bis in spätantike Zeit." *Istanbuler Mitteilungen* 44: 135-175.
- Yegül, F. K. 1986. *The Bath-Gymnasium Complex at Sardis*. Cambridge, Mass.: Harvard University Press (Archaeological Exploration of Sardis Reports 3).
- Yegül, F. K. 1987. "Roman Architecture at Sardis." In E. Guralnick (ed.) *Sardis: Twenty-Seven Years of Discovery*. Chicago: Chicago Society of the Archaeological Institute of America, 345–355.
- Yegül, F. K. 1992. Baths and Bathing in Classical Antiquity. Cambridge, Mass.: MIT Press.
- Yegül, F. K. 2000. "Memory, metaphor and meaning in the cities of Asia Minor." In E. Fentress and S. Alcock (eds.) Romanization and the City: Creation, Transformations, and Failures: Proceedings of a conference held at the American Academy in Rome to celebrate the 50th anniversary of the excavations at Cosa, 14-16 May 1998. Portsmouth, R.I.: Journal of Roman Archaeology (Journal of Roman archaeology Suppl. 38), 133-153.
- Yegül, F. 2013. "Thermal Matters: Intersected Legacies of the Greek and Roman Baths and Bathing Culture." In S.K. Lucore and M. Trümper (eds). *Greek Baths and Bathing Culture.* New Discoveries and Approaches. Leuven: Peeters (BABesch Supplement 23), 73-88.
- Yegul, F. and Favro, D. 2019. *Roman Architecture and Urbanism: From the Origins to Late Antiquity*. Cambridge: Cambridge University Press.
- Yılmaz, A. 2015. "B. Roman Bath." In C. Başaran (ed.), V. Keles and M.D. Yilmaz (trans.) *The Flourishing City of Ancient Troad: Parion. Surveys, Excavations and Restoration Works Carried Out Between 1997-2009.* Istanbul: Ege Yayınları, 57-66.
- Yılmaz, A. 2018. "The Roman Bath of Parion." In D. Katsonopoulou (ed.) *Paros IV: Paros and its Colonies*. Athens: The Institute for Archaeology of Paros and the Cylades, 209-219.
- Yılmaz, S. 1994. "Denizli, Hierapolis (Pamukkale) Antik Kenti Roma Hamamı Sondaj Kazısı ve Temizlik Çalışmaları." In Müze Kurtarma Kazıları Semineri and Türkiye Anıtlar ve Müzeler Genel Müdürlüğü (eds.) *IV. Müze Kurtarma Kazıları Semineri: 26-29 Nisan 1993, Marmaris*. Ankara: Kültür BakanlığI, 199-217.
- Yolaçan, B. and Ersoy, A. 2018. "Transforming Public Spaces: the Agora of Smyrna, a Case Study." In M. Livadiotti, R.B. Pasqua, L.M. Caliò (eds.) *Theatroeideis. L'immagine della città, la città delle immagini. Atti del Convegno Internazionale, Bari, 15-19 giugno 2016, voll. I-IV.* Thiasos Monografie 11.2. Rome: Edizioni Quasar di Severino Tognon, 183-192.

- Zachos, K.L. and Kazazis, D.B (trans.). 2015. *An Archaeological Guide to* Nicopolis: *Rambling through the Historical Sacred and Civic Landscape*. Athens: Ministry of Culture and Sports DIPCA
- Zachos, K.L., Kalpakis, D., Kappa, H., and Kyrkou, T. 2008. *Nicopolis. Revealing the City of Augustus' Victory*. Athens: F.C.M.A.P. Scientific Committee of Nikopolis.
- Zanker, P. and Schneider, D.L. (trans.). 1998. *Pompeii. Public and Private Life*. Cambridge Mass: Harvard University Press.
- Zarmakoupi, M. 2018. "Urban Space and Housing in Roman Macedonia: Thessaloniki, Philippi, Amphipolis and Dion." In J. Fournier and M-G. G. Parissaki (eds.) *La domination romaine sur les communautés du Nord Égéen (IIe s. av. J.-C. IIe s. apr. J.-C.): Entre ruptures et continuities*. Athens: National Hellenic Research Foundation (MELETHMATA 77), 263-297.