

Urban Networks in the Roman Province of Achaia (Peloponnese, Central Greece, Epirus and Thessaly)¹

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‘No one – least of all me – would dispute that turning scatters of pottery into settlements of a certain size, or settlements of a certain size into demographics, is fraught with difficulty. But once we give up on the attempt and refuse figures we refuse any possibility of being able to compare what is happening in one place to what is happening in another. In the end things have to be put on a single scale if we are to compare them, and that scale has to be quantitative’.

Osborne 2014: 210

Introduction

It is generally accepted that the late-Hellenistic era (c. 150–31 BC) was a period of disturbance for Greece. The wars between Republican Rome and the Hellenistic kingdoms as well as the Roman civil wars took place in major part on Greek soil. The ancient writers of late-Hellenistic but also of Imperial times (e.g. Polybios, Strabo, Plutarch, Dio Chrysostom and Pausanias) speak of ruins, depopulation and decline, and in fact this turbulent situation had negative effects both at province and city level.² ‘Augustus and his successors tried to stop this decline by introducing some changes which favoured some large cities,’³ but how successful were these changes in recovering the cities of Greece at a general level is not clearly defined. In fact, while huge amounts of work have already been done on individual cities (and on imperial interventions in particular cities, e.g. Athens, Corinth, Patras), nobody has tried to reconstruct the ‘big picture’: the sheer number of cities, the administrative and juridical complexity, and the insufficiency/uncertainty of the archaeological data, have always been obstacles for such an attempt. Thus, apart from the (dominant) studies on monumental buildings, the urban history of Roman Greece has been restricted to (mainly) political and social evidence provided by the inscriptions. At best, overall discussions have been limited to particular regions, and/or have been based on fragmentary evidence resulting in subjective readings and contradictory results. The most characteristic examples of this phenomenon are the two works closest to the present study, namely the pessimistic reading made by Kahrstedt⁴ and the optimistic one of Alcock,⁵ whose results this article actually aims to update and correct.

Kahrstedt, who first tried to evaluate Roman Greece based on archaeological criteria, essentially confirmed the grim picture provided by the ancient writers: he has shown a widespread urban

¹ This paper presents the first results of my research into the urban systems of Roman Greece and Roman Cyprus, which is being undertaken in the context of the ERC Advanced Project ‘An empire of 2000 cities: urban networks and economic integration in the Roman Empire’ directed by Luuk de Ligt and John Bintliff (Leiden University), which aims to reconstruct and analyse the urban systems of all the provinces of the Roman Empire. I thank the directors of the project as well as the following Professors and/or colleagues for their useful advices: J. Coleman, D. Christodoulou, D. Donev, W. Gauß, A. Konecny, E. Kourinou, F. Lang, Y. Lolos, K. Ødegård, P. Petridis, Y. Pikoulas, A. Rizakis, D. Romano, M. Tasaklaki and G. Zachos.

² Bintliff 2012: 311–312.

³ Rizakis 2014: 243.

⁴ Kahrstedt 1954.

⁵ Alcock 1993.

decline and a shift towards villa estates, but the thin data at his disposal at the time, prevented general acceptance of his narrative of large-scale decline.⁶ Four decades later, Alcock, using similarly a selection of case-studies for her interpretations, offered a completely different reading: she interpreted the testimonies of the ancient writers (at least of imperial times) as rhetorical *topoi* and she argued that instead of decline we would be more correct to speak of a transformation in the urban system of Roman Greece, in that many cities were abandoned or degraded in favour of a much smaller number of remaining cities, which were on average much larger than their Classical and early-Hellenistic predecessors.⁷

Recent publications reproduce the debate adding new data, without offering however a definite reading regarding the urban pattern of Roman Greece, because of the lack of a comprehensive investigation regarding the fate of *all* the cities of Greece in Imperial times.⁸

This article tries to do just that by using a quantifying approach. This approach entails of course some serious sacrifices (primarily a less adequate understanding of the vicissitudes of individual cities) but this is a price which must be paid if we want to obtain an understanding of developments in Roman Achaia as a whole. More analytically, this article will not discuss cities from the angle of political and social history. This work has already been done by numerous scholars, producing till now a large amount of literature. By contrast, this article will primarily use quantitative data provided by archaeology,⁹ focusing on four particular key-themes: the number of the self-governing cities which were active in the Roman Province of Achaia, the physical size (built-up area) of these cities, how many cities repaired, modified or erected public buildings, and finally how many of them struck coins. These four key-themes will be looked at over a long-term perspective. Specifically, although the chronological focus of the paper is the Roman imperial period (1st – 3rd century AD), attention will be paid to the transition from the urban configuration of the late-Classical and early-Hellenistic periods to the Roman pattern. The obvious reason for this is that a diachronic perspective must be considered an essential element in identifying and interpreting the profound changes in the urban networks of Greece that took place under Roman domination.

It is self-evident that manpower and time limitations did not permit an exhaustive investigation of all types of evidence relating to the cities and settlements of the vast area that had to be covered. For the purposes of this study it has been deemed enough to investigate the sources up to the point where it became possible to provide some provisional answers to the specific questions which are central to my current research. Despite these concessions, it has to be recognised that the quantifying approach applied here has been confronted with several difficulties. Good quantitative data are hard to come by, and this has been particularly evident in the estimation of the city-sizes. This problem has been surpassed with the solution of broad size-brackets (which for this reason are more important than precise estimates), and of three different levels of reliability for the evidence on city-sizes (see below). While I do not have the slightest doubt that some of the assessments I have made for individual cities will have to be revised in the light of future research, I found the attempt to use the deficient data available at present to arrive at a general reconstruction of the urban system of Roman Greece very worthwhile, and I also think that the overall reconstruction is not too far from reality. It is my conviction that we have to dare to take this risk if we want to offer overall narratives, instead of continuing in the next century, to study exclusively monumental buildings and inscriptions because of fear of the uncertainty.

⁶ Bintliff 2012: 313.

⁷ It seems worth noting at the outset that my conclusions will be very different from those reached by these scholars. The same applies to Hanson's figures for Greece in his book on Roman urbanism; Hanson 2016.

⁸ See for example, Rizakis 2010a; Bintliff 2012: 310–333; Rizakis 2014.

⁹ Epigraphical and literary sources will not be ignored, but will mostly be used to corroborate or modify inferences which have been drawn from archaeology.

The archaeological data, large amounts of which have been accumulating during the past decades, is a powerful tool the strength of which must be used, apart from specialised analyses, for this kind of general reconstruction. Despite the possible mistakes, it is my belief that these reconstructions are better than continuing reluctance. This reluctance towards general narratives - which in fact the general public also demands - contributed according to my opinion to the gradual degradation of the Human Sciences (and history and archaeology in particular) which we experience nowadays.

What I shall do now is to start with a region-by-region survey of the active cities of Greece during Roman imperial times. My next step will be to discuss the (physical) size of these cities. In the third part of this contribution I will focus on coinage production and on the presence, or absence, of key public buildings. Finally, a comprehensive reconstruction of the urban hierarchies of Roman Greece will be attempted. Discussions of every site and references to the sources are provided in the Appendix at the end of this article.

How many cities were there in Roman Greece?

Before undertaking a study of the 'urban system' of Roman Greece, a definitional clarification of the term 'city' is in order. 'Cities' can be distinguished from other types of settlement on the basis of juridical, administrative and political criteria (official cities), on the basis of population size (demographically defined cities), or based on the occupational profile of the population and the economic functions performed by the settlements in question (functional cities).¹⁰ It is important to note that in Roman Greece and Italy there were many 'official' towns which occupied areas of less than 10 ha, while in Roman Gaul we find settlements of up to 80 ha in size which officially were 'villages'.¹¹ The latter case, of settlements performing 'urban' functions without having urban status, appears mainly in areas with low pre-Roman urbanisation rates, such as North-West Europe. After the Roman conquest a spontaneous process of secondary settlement creation and development took place, resulting in the (usually) big gaps between the official cities (previously the central tribal towns) being filled by town-like secondary agglomerations and rural market centres which did not achieve official urban status.¹²

In Greece I have not encountered this phenomenon. The dense network of *poleis* (city-states) which was created in the Archaic and Classical periods did not leave any significant 'gaps' in which unofficial 'functional cities' could emerge. The few Roman foundations which appeared in Greece also had civic status. What we do encounter in early-imperial Greece is the opposite phenomenon: tiny settlements which might have been classified as 'villages' based on their small size, functional profile and archaeological context, but which nonetheless retained *polis* status even during the Roman imperial period. Examples include the well-known case of Panopeus in Phokis, provoking Pausanias' perplexity as to why such a modest settlement could be called a *polis* (Paus. 10.4.1), and the Eleuthero-Lakonian *poleis* of the Mani peninsula, which appear to have been no bigger than the present-day villages in terms of physical size (see below). It seems that at least some elements of the *polis* system, the 'Dorfstaat' model of Kirsten,¹³ which has been described as 'mostly the creation of socio-political centralisation rather than the product of economic, especially market, forces',¹⁴ survived during the early Roman empire, despite the gradual centralisation of power which took place between the Classical and Roman periods.

The survival of many small cities as self-governing communities is, however, only one of the two dynamics which can be observed in Roman Greece. The second one is that many cities belonging

¹⁰ For these definitions see De Ligt 2012: ch. 5.

¹¹ De Ligt 1990: 28-29.

¹² Bintliff 2002: 240.

¹³ Kirsten 1956.

¹⁴ Bintliff 2002: 242.

to various size brackets lost their civic status or even were completely abandoned, indicating a partial thinning out or a gradual collapse of the old urban system. The latter phenomenon will be examined more closely in the final part of this article, but before any analysis of the historical evolution of Greece can be undertaken, this transformation must be charted.

For anyone trying to come to grips with the overall shape of the urban systems of Classical Greece and its subsequent evolution, the *Copenhagen Polis Centre Inventory of the Archaic and Classical Poleis of the Greek world*¹⁵ is an ideal starting point. For the purposes of the present study I have examined the fate of all cities listed in the Copenhagen inventory in Roman imperial times, adding the early-Hellenistic cities not included in Hansen's and Nielsen's lists and of course the new Roman foundations. In order to achieve a better understanding of the settlement systems of the Classical and Roman periods, I conducted a similar exercise for those 'secondary settlements not attested as *poleis*' which appear in the Copenhagen Inventory.¹⁶ For obvious reasons any settlement which is listed as 'secondary' in the Inventory but which is known to have acquired civic status in early Hellenistic times has been included in my list of 'pre-Roman *poleis*'. An attempt was also made to add new secondary settlements which appeared in Roman times. Since the 'secondary settlements' of pre-Roman and Roman Greece have never been investigated systematically, there can be no doubt that my collection of data regarding such agglomerations is very defective. My main reason for including them is that it might be possible to achieve a better understanding of the urban systems of Classical and Roman Greece by placing the 'official cities' in the wider context of the settlement systems which existed during these periods, in so far as these can be reconstructed.

A first comparison between the late Classical-early Hellenistic situation and that which existed during the first three centuries of the Roman empire is telling: while 292 self-governing cities are attested in Classical and early-Hellenistic Greece, their number had dropped to 161 in Roman times (Figures 1 and 2). It must be emphasised that the tally for the Roman period is an 'optimistic' result, since my figure for the pre-Roman period does not include unlocated cities, cities whose precise location is still debated, or cities which were abandoned or degraded before the late-Classical period. Since this approach has the effect of severely decreasing the number of the pre-Roman cities, the difference between the urban systems of the pre-Roman and Roman periods is even more pronounced than is suggested by my conservative estimates. It should also be noted that my figure for the Roman period includes all Classical-Hellenistic *poleis* which continued to be active as settlements in the imperial period – even in those cases in which it cannot be determined whether or not these settlements maintained their civic status. In my inventory these *poleis* appear with a question mark. In practical terms this means that for the purposes of this study only those Classical *poleis* which are known to have been reduced to dependence on other centres and those whose subsequent abandonment has been confirmed by archaeological exploration are regarded as having ceased to be self-governing cities.

My figure for the main secondary settlements of the Roman period is equally optimistic. At first sight their number more or less equals that which can be calculated for the Classical-Hellenistic period, with 172 secondary settlements in pre-Roman Greece against 173 secondary agglomerations in Roman imperial times. It has to be emphasised, however, that the tally for the secondary settlements of Roman Greece is significantly augmented by the inclusion of a substantial number of degraded pre-Roman *poleis*. Moreover, in many cases the 'evidence' for secondary settlements of Classical times surviving into the Roman period consists of data collected during extensive

¹⁵ Hansen and Nielsen 2004, from now on *CPCI*.

¹⁶ These are described in *CPCI* as 'Pre-Hellenistic settlements not attested as *Poleis*': town-like settlements without civic status, ports and villages. Similarly, regarding the Roman period, under the term 'secondary settlement' I include this kind of second-order nucleated sites. Of course this category is vaguer than that of the *poleis*, as it includes places with a large variety of sizes and functions. It embraces for example tiny villages as well as large settlements like Peiraeus, which due to its large size and function should actually be regarded either as a separate city or as part of Athens. But the case of Peiraeus is an exception. (For further discussion on the distinction between primary and secondary settlements, see *CPCI* 74–79).

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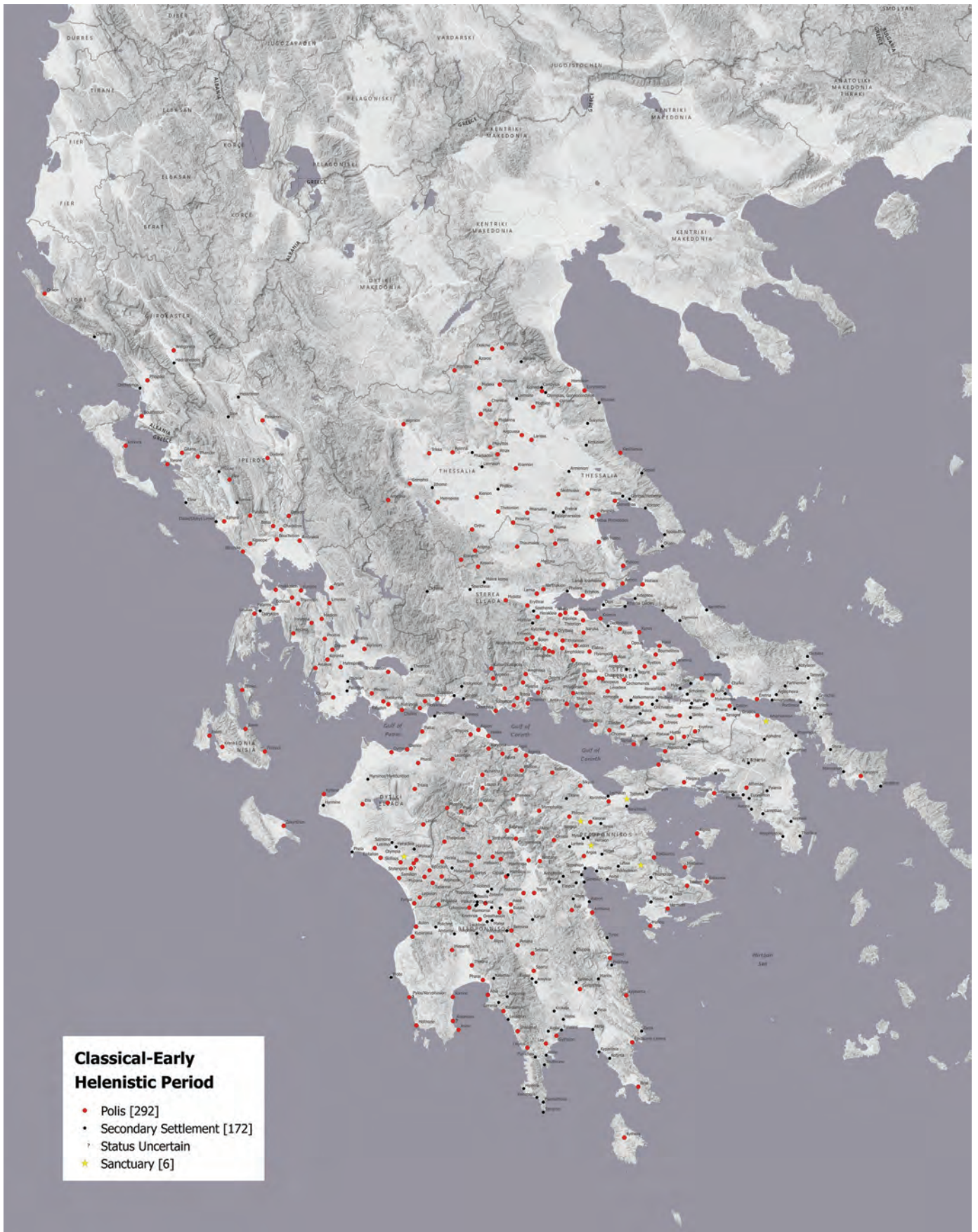


Figure 1. Classical-early Hellenistic poleis and secondary settlements.

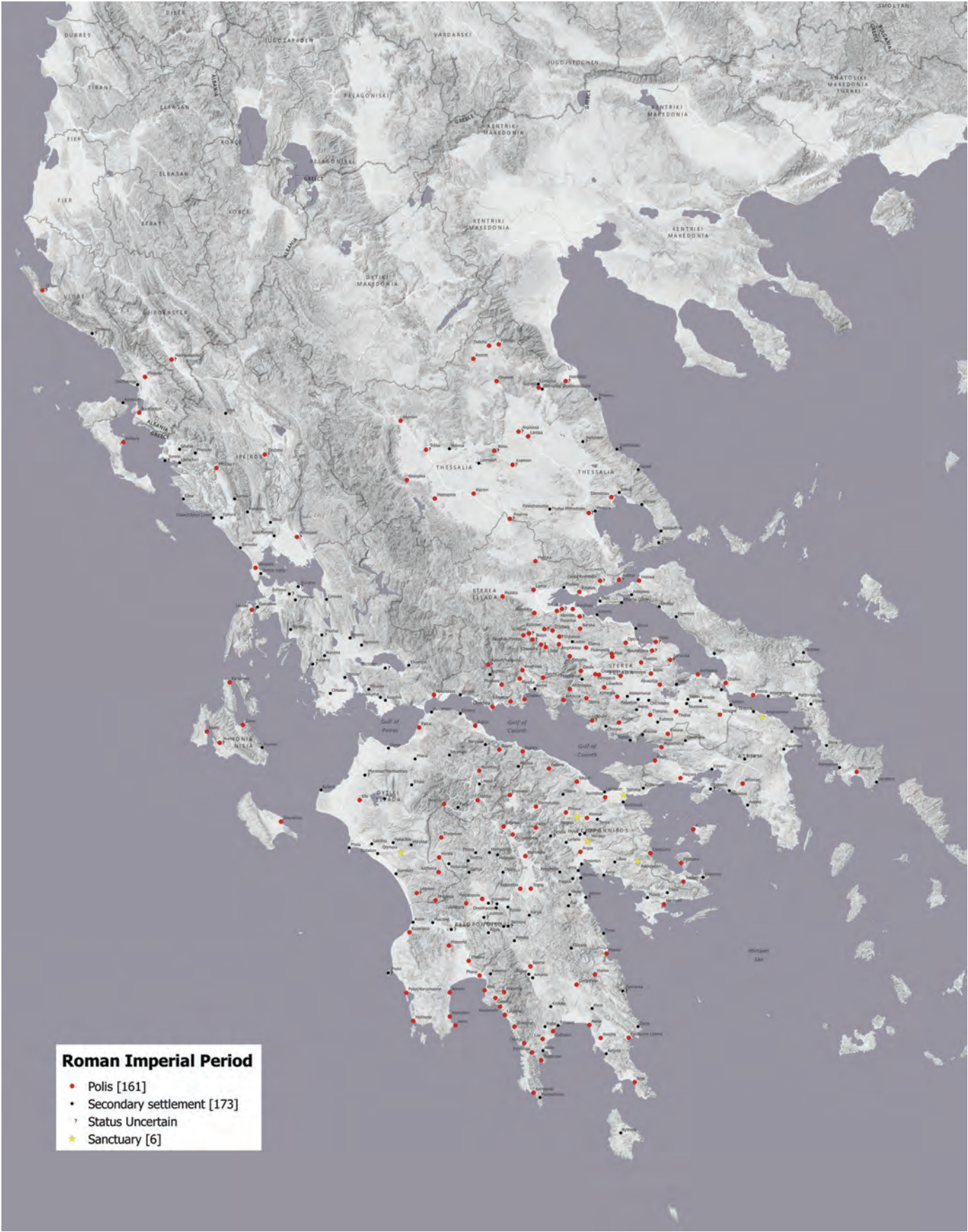


Figure 2. Roman imperial poleis and secondary settlements.

archaeological surveys, or of casual finds discovered during rescue excavations. In the absence of archaeological clues regarding the exact nature of a particular site which was 'active' during the Roman period, the evidence provided by a grab of sherds or stray finds leaves open the possibility that the archaeological material recovered might reflect the presence of a villa or farm rather than the continued existence of a secondary settlement.

In any case impressionistic conclusions emerging from general tallies of self-governing *poleis* or secondary settlements which were active in the Classical/early-Hellenistic or early-imperial periods must be supplemented and refined by carrying out detailed studies of developments in the settlement systems of particular regions. These regional patterns are the focus of the next part of this contribution.¹⁷

Regional survey

Peloponnese

In the Corinthia, after the refoundation of Corinth (in 44 BC as a Caesarian and in the 70s AD as a Flavian colony)¹⁸ the number of self-governing and secondary settlements did not differ between Classical-Hellenistic and Roman imperial times. Apart from Corinth, *totius Achaiae provinciae caput* (Apul. *Met.* 10.18), the second city of the region, Sikyon, continued to be operative, although the fact that the Flavian centuriation of Corinth was extended into Sikyonian territory suggests a decline of this city.¹⁹ Similarly all of those secondary settlements which are known to have existed in Classical/early-Hellenistic times remained active during the early Roman empire.

In the Argolis, however, some significant changes are visible. While seven self-governing cities continued as such in Roman times, Halieis was definitely abandoned. Kalaureia (the main settlement of the island of Poros), which had been a subordinate *polis* depending on Troizen till the late 4th century BC, became independent after the death of Alexander. In the Roman period it seems to have lost its civic status and to have become a secondary settlement. The same probably happened to Orneai, a dependent *polis* in the territory of Argos. Of 15 known secondary settlements 12 continued, but according to Pausanias three others (Hysiai, Midea and Nauplia) were deserted, a statement for which unfortunately we have no archaeological confirmation. Another secondary settlement, Philanorion, is mentioned by Pausanias but without any further information.

In the north-western Peloponnese the urban pattern experienced much more drastic changes. Starting with Achaia,²⁰ from the fifteen self-governing *poleis* which are known to have existed in the Classical/early-Hellenistic period, only five continued to have civic status during the Roman imperial period. Six continued to exist but were degraded to secondary settlements. The remaining four were abandoned (one of them possibly). Apart from Helike and Aigai, which were abandoned already in the late Classical and early Hellenistic periods respectively, a key element in this reconfiguration of the regional settlement system was the foundation of the *Colonia Augusta Achaica Patrensis*. The territory of the (probably already abandoned) city of Rhypes, the cities of Pharai and Tritaia, probably also Leontion, and even the Caesarian colony of Dyme were attributed to the colonial territory of this city. All of these settlements continued to exist as *komai* of Patras.²¹ A similar thing happened to the city of Keryneia, which in Roman times was a secondary settlement depending on Aigion.

¹⁷ In order to facilitate diachronic comparisons the regional borders follow the divisions used in the *CPCI*.

¹⁸ Romano 2000, 2003.

¹⁹ Romano 2000: 96–100 n. 51.

²⁰ In this article the term Achaia refers to the geographical region in the northwest Peloponnese, while the expression 'the province of Achaia' is used to refer to the entire Roman province.

²¹ Rizakis 1997.

In Elis and Triphylia, Elis had been the dominant city since the 6th century BC. All the remaining cities were either perioikic settlements depending on Elis with some brief intervals of independence, or associated with other states (i.e. Sparta or the Arcadian confederacy).²² This situation lasted until 146 BC, when the whole region was unified as a single *polis*.²³ From that time onwards the only cities in this huge territory were Elis and Olympia. While Olympia was primarily a sanctuary site, it was also used for political purposes from at least the 6th century BC onwards, making the Elean *polis* essentially bi-central.²⁴ On an optimistic reading of the evidence Lepreon, the only site of the area (apart from Elis) which is referred as a *polis* by Pausanias, might be added to this pair, if we ignore its miserable condition described by the traveller. All other sites mentioned by Strabo or Pausanias are either referred to as secondary settlements or said to be in ruins, and the archaeological record is more or less in accordance with these assessments. In conjunction, the literary and archaeological evidence suggests that, apart from Elis, all other urban settlements decreased in number and that the surviving agglomerations declined.²⁵

In Arcadia, although Strabo's description of an area in severe decay might be exaggerated, recent studies support the view that the region experienced a decline during the first centuries of the Roman empire, in part as a result of population decrease, and also due to the absorption of small communities which had previously been independent, by their larger neighbours.²⁶ Regarding the latter phenomenon Roy correctly makes the following observation: 'While in the Classical and early Hellenistic periods there are several known examples of a small community, even when fully incorporated into a larger neighbour, detaching itself and resuming an independent existence, after the mid-2nd century BC there is no further evidence of a small community breaking away again in this way'.²⁷ Examples of small *poleis* which maintained or obtained their independence in Classical/early-Hellenistic times include Dipaia, Gortys, Methydion, Teuthis and Thisoa. Although these five settlements were among those communities that the Arcadian Confederacy voted to relocate to Megalopolis, this decision probably was never (entirely) implemented, as is demonstrated by the fact that in the early-2nd century BC all of them issued coins as member states of the Achaian League. The same scenario probably applies to Eutaia, Helisson and Oresthasion, although in these cases we do not have confirmation from the coinage. Similarly, Lousoi issued coins under the Achaian League in the 2nd century BC, but this city came to be controlled by neighbouring Kleitor in the Roman imperial period. Paos, a secondary settlement in the territory of Kleitor in Roman imperial times, had probably been a *polis* till the late-3rd century BC. The formerly independent *poleis* of Asea, Nonakris and Nestane became villages depending on larger centres and were abandoned in the Roman imperial period.

All in all 17 settlements were operative as self-governing *poleis* in Roman Arcadia, among them Alipheira, Lykosoura and Pallantion, the only small communities which managed to maintain their civic status. Of these three, Lykosoura probably was subordinate to Megalopolis. In addition to these self-governing cities at least 14 (substantial) secondary settlements were active in Roman times, ten of which were former *poleis*. Pausanias also mentions seven formerly secondary settlements which were abandoned when he visited the region. In line with the general methodology adopted in this paper these settlements have been treated as 'possibly abandoned' for the purposes of this article.²⁸

²² CPCI 489–491.

²³ Roy 2008: 263; Roy 1999: 166–167.

²⁴ CPCI no. 251.

²⁵ Roy 2008: 266.

²⁶ Roy 2010: 59–60; Forsén and Forsén 2003: 269–271.

²⁷ Roy 2010: 60.

²⁸ Since we have no archaeological evidence to confirm Pausanias' claim, it seems wise to keep open the possibility that his assessment might have been overly pessimistic.

In Messenia and Laconia we find a quite different pattern which appears to reflect decisions which were taken after the Roman invasion of 195 BC. While the situation in western Messenia does not seem to have changed significantly compared to pre-Roman times (with only the *polis* of Aulon possibly losing its civic status and the secondary settlement of Ampheia being abandoned), radical changes took place in eastern Messenia and southern Laconia. As a result of Flamininus' invasion of Laconia and the subsequent negotiations with Nabis, Sparta was deprived of all its perioikic *poleis*, which gained their collective independence. The former perioikic dependencies were united under the '*koinon* of the Lacedaemonians', having Gytheion, the ex-naval base of the Spartans as their 'capital'.²⁹ The league was later reorganised by Augustus, and it was renamed the '*koinon* of the Eleuthero-Lakonians'. By way of compensation for the loss of its perioikic communities the Romans made three Messenian cities (Kardamyle, Pharai and Thouria) subordinate to Sparta.

This political move of the Romans increased the number of *poleis* with respect to the pre-Roman situation. Of the 18 Eleuthero-Lakonian cities listed by Pausanias (3.21.7) nine had already been (perioikic) *poleis* but the other nine were now raised to *polis* status for the first time in their history.³⁰ However, instead of interpreting this increase as a sign of urban florescence, we must regard it as the outcome of a purely political game. There can be no doubt, for example, that the tightly packed *poleis* of the Mani peninsula remained essentially villages. Although their coastal location might suggest otherwise, the rocky nature and steepness of the landscape did not permit these settlements to function as commercial centres. So far none of these settlements have produced evidence for the presence of public buildings, there are no signs of settlement expansion, and none of them is known to have struck coins. The only city of the Eleuthero-Lakonians which shows clear signs of flourishing under Roman rule is their capital Gytheion, which seems to have been entrusted with some kind of overall administrative control over the Eleuthero-Lakonians after Sparta had been deprived of the region. However, while Gytheion's acme to some extent reflected its position of primacy within the *koinon*, it can also be attributed to its development as an important port city in Roman times, inviting comparison with other flourishing port cities, such as the city of Antikyra on the south coast of Boeotia (see below).

The northern part of Laconia presents an entirely different pattern, which closely resembles the picture which emerges for the other sub-regions of the Peloponnese: In Roman times the cities of Anthana, Kromnos and Sellasia were abandoned, while Aigys, Eua and Pellana continued to exist but as secondary settlements.

The fate of the island of Kythera under the empire is illuminating in a different way. Having started as a perioikic *polis* depending on Sparta, it became an autonomous community in the late-Hellenistic period. Under Augustus, however, it ended up as the private property of his loyal ally Eurykles, '*hegemon* of the Lacedaemonians' (Strabo 8.5.1).

Central Greece

Central Greece felt the consequences of the wars which plagued Greece in the two centuries BC more than the Peloponnese. Of course, this applies mainly to Boeotia, Aitolia and Acarnania, levels of disruption being far less dramatic in the eastern parts of central Greece. In Megaris, for example, apart from the city of Megara, which remained the main urban centre of this region, the two minor cities of Aigosthena and Pagai were still operative in Roman times. While these two *poleis* had probably been dependent on Megara in the Classical and early-Hellenistic periods, they seem to have been independent under Roman rule.

²⁹ Cartledge and Spawforth 1989: 76–77.

³⁰ One of these newly created *poleis*, Zarax, probably did not manage to maintain its civic status, as it is referred to as a *chorion* by Pausanias (3.24.1) and said to be in decay.

Athens, despite its pro-Mithridatic stand, continued to be one of the main urban centres of Greece during the first three centuries AD (see below). The fate of the subordinate agglomerations of the demes, some of which had displayed at least some 'urban' features in the Classical period, is very hazy, but this observation applies not only to the Roman period. Of the c. 150 demes which existed in Attica in Classical times, only the 14 most important were examined for the purposes of this study. Based on archaeological and epigraphic data we can be sure that the following deme centres remained active in Roman times: Acharnai, Aixone, Eleusis, Rhamnous and of course Peiraeus, which due to its large size and function must either be regarded as a separate city or as part of Athens. In Roman times Marathon was transformed into a *latifundium* of Herodes Attikos, while Thorikos was definitely abandoned. For the remaining seven deme centres (Anaphlystos, Aphidna, Euonymon, Kephale, Lamptrae, Paiania and Phaleron) we have no clue about their fate in the Roman period, with even the archaeological evidence for their pre-Roman phase being very scanty.

In the Saronic Gulf, Aigina was still an operative city in Roman times, but Salamis, a subordinate *polis* depending on Athens in Classical-Hellenistic times, seems to have lost its civic status under Roman rule and to have become a secondary settlement of its great neighbour.

Euboea had 13 *poleis* in Archaic/early-Classical times, but by the 4th century BC nine of these had been absorbed by the four cities of Chalkis, Eretria, Histiaia and Karystos.³¹ These four surviving *poleis* were still operative in the early-Roman period, with Chalkis being Euboea's primary city (Strabo 10.1.8, 11; Livy 35.51.10).³² Between the early-Hellenistic and early-imperial periods the number of secondary settlements appears to have declined quite significantly, with six settlements definitely or possibly abandoned.

Boeotia, 'the dancing floor of Ares' in the 1st century BC,³³ is marked by the ruthless destruction of Haliartos by the Romans (in 172/1 BC) and by the handing over of its territory to the Athenians. The city was never re-founded. The *polis* of Oropos, which had been subordinate to Athens or Thebes during various phases of the Classical and early-Hellenistic periods, with some intervals of autonomy, lost its civic status in Roman times, becoming absorbed by Athens as a rural deme. Chorsiai, a small dependent *polis* in the territory of Thespiiai, was destroyed in the 2nd – 1st century BC and then reoccupied as a village in the 2nd century AD. Two more small *poleis* which had depended on Thespiiai in the Classical period (Eutresis and Siphai), were simply secondary settlements in Roman times. Mykalessos, a small city dependent on Tanagra, is known to have had *polis* status till at least 350 BC, but was certainly abandoned in Roman times. The same happened to Erythrai and Hysiai, although we do not know for sure if these two tiny Classical *poleis* had civic status after 400 BC.

As in the case of other parts of Greece, those *poleis* which either lost their civic status or were abandoned in Roman times were small communities whose status had been vacillating between dependence and independent status, with Haliartos being the only exception to this rule. Thirteen cities were still operative in Roman Boeotia, among them Akraiphia and Kopai, the only small communities which managed to maintain their civic status, and Lebadeia and Anthedon, despite the attacks on them which were carried out by Mithridates and Sulla respectively (Plut. *Sulla* 16, 26). In addition to these self-governing cities at least 11 secondary settlements were active in Roman times. One of these, Onchestos, is of special interest, as it seems to have taken the place in the central place system of central Boeotia which had been left vacant after the disappearance of Haliartos, which was situated some two kilometres to its west.

³¹ Picard 1979: 209–212; *CPCI* 643.

³² In the second half of the 3rd – early 4th century AD Aideon and Porthmos replaced Histiaia and Eretria as the official cities of the region.

³³ Wallace 1979: 178.

In Opuntian and Epicnemidian Lokris we have certain evidence for only three cities having civic status in Roman times: Opous (the *metropolis* of the Lokrians according to Strabo 9.4.2), Skarpheia, and the tiny settlement of Naryka, all of which had been self-governing *poleis* in pre-Roman times as well. Six more Classical-Hellenistic cities continued to be active in the Roman period, but we do not have epigraphical confirmation for the civic status of these settlements. For the purpose of this study it will be assumed that they continued as *poleis*. One of these settlements is Halai, which was destroyed by Sulla in 86 BC (Plut. *Sulla* 26). Previous scholars have claimed that this city was abandoned in Roman times, but archaeological evidence suggests it recovered. The pre-Roman *polis* of Knemis was probably active as a secondary settlement during the early Roman empire. As for the city of Kynos, we know for sure that its harbour was used in the Roman period, but no evidence is available for the city itself. Alope is the only *polis* which was definitely abandoned after the 1st century BC.

Doris is described by Strabo as a *tetrapolis* (9.3.1), and in fact we know very little regarding the cities of this region in the Roman period apart from his notes. The archaeological evidence is very deficient for this mountainous territory. According to Strabo 9.4.11, 'for a time the cities in question were held in respect, although they were small and had poor soil, but afterwards they were lightly esteemed. During the Phocian War and the domination of the Macedonians, Aetolians and Acarnanians - it is marvellous that even a trace of them passed to the Romans'. From this ambiguous statement it may be deduced that the four *poleis* of Doris were still operative in Roman times, although we cannot be sure about their political status, with the exception of Akyphas/Pindos. With maximum optimism I have assumed that all four of these Dorian settlements survived as *poleis* in Roman times.

In the region of Phokis 22 *poleis* are recorded during the Classical/early-Hellenistic period. Seventeen of these were active as *poleis* in the Roman period. Of the remaining five, three continued as secondary settlements while two were abandoned. Phlygonion was absorbed by Ambrossos, Erochos by Lilaia, and Medeon by Steiris. Kirrha, the port of Delphi, seems to have had *polis* status in Classical-Hellenistic times, but had certainly lost it in the imperial period; for Pausanias (10.37.5) it was just a *chorion*.

Ozolian Lokris was affected by the Augustan foundations of Nikopolis and Patras. According to Pausanias (10.38.9), with the exception of Amphissa (*civitas libera et immunita*), the other cities of western Lokris were administered by the Achaians of Patras, that is to say, by the Greek inhabitants of the city, the emperor Augustus having granted them this privilege. For Larsen³⁴ this meant that the Ozolian cities probably paid taxes to Patras rather than to Rome, but Rizakis³⁵ interprets Pausanias' statement as referring to financial obligations which were imposed on the Lokrians in order to compensate the Greeks of Patras for the losses they had suffered due to the settlement of veterans in the territory of their city. As argued by Rizakis,³⁶ these obligations were only temporary, as shortly afterward the cities of Ozolian Lokris regained their independence. Pliny the Elder's statement (NH 4.7) that the Ozolian Lokrians are immune seems to presuppose the latter development.

Regardless of whether or not the pre-Roman *poleis* of Ozolian Lokris became or remained dependent, most of them appear to have remained operative in Roman imperial times. We have evidence for the civic status not only of the two major cities of Amphissa and Naupaktos, but also for that of Chaleion, Myania, Oiantheia, Physkeis and Tolophon. Only the fate of Triteia is hazier.

³⁴ Larsen 1938: 447.

³⁵ Rizakis 1997: 25.

³⁶ Rizakis 1997: 26.

Aitolia and Acarnania

Aitolia, Acarnania and Epirus (together with the north-western Peloponnese) experienced significant urban and territorial restructuring under Roman rule. Multiple reasons for this dynamic intervention have been identified, including the long-standing antagonism of these areas towards Rome, which might have prompted the breaking up of these formerly hostile zones, the disruptive impact of military operations, and the importance which these areas acquired in the communication network of the Roman empire after Italy's rise as the new core zone of the Mediterranean world.³⁷

The Aitolians, long-standing opponents to Rome's interests, suffered the consequences of their policies. After Antiochus's defeat at Thermopylae some of their cities were besieged and captured, and in the decades that followed the Romans provoked the massacre of several hundred leading Aitolians (Livy 45.28.6–7; 31.1–3). After the battle of Actium the Aitolians were driven from their territory. Some of them were resettled in Nikopolis, but the majority went away to Amphissa and Patras (Paus. 10.38.4; 7.18.5 ff.). Strabo describes Aitolia as 'deserted' (8.8.1), and the area disappears from the sources. The last references to the Aitolian *ethnos*-organisation and to the *koinon* of the Aitolians belong to the 1st century BC.³⁸

The archaeological data seem to corroborate the picture painted by the literary sources. Fieldwork carried out in Aitolia shows a dramatic drop in site numbers between the Hellenistic and Roman eras,³⁹ while old and new data show that the cities of Aitolia essentially vanished in Roman times. Chalkis was probably abandoned in the Roman period. Most other cities show signs of continued habitation, but on a much-reduced scale. The city of Kalydon was almost completely abandoned in the 1st century AD, with some kind of activity continuing only in the Heroon and the cult of Artemis Laphria, and even these activities seem to have come to an end in the 2nd or 3rd century AD. Similarly, Pleuron probably maintained a limited level of activity in early Roman times, perhaps as a hamlet or as a villa. The same is true of Agrinion, Aigition and Halikyrna. For Makynia and Molykreion we do not have concrete information. The only settlement which could be interpreted as continuing to perform town-like functions is Kallion/Kallipolis, the only major Roman site identified by the Aitolia survey apart from Naupaktos.⁴⁰

It is difficult to avoid the conclusion that the urban system of Aitolia collapsed in the Roman period, with local and regional social groups carrying on as villages or regional communities, recalling the settlement system of Aitolia in the Classical era (Thucydides 3.94.5; 96.3). As noted above, this decrease in complexity resulted from Roman policies favouring the colony of Patras, to which large parts of Aitolia were assigned.⁴¹ This drastic rearrangement had the effect of dismantling the Aetolians as a political entity capable of organizing any resistance and of catapulting Patras into a position of regional pre-eminence. Since life continued in Roman Aitolia, Strabo's statement that this area was 'deserted' is literally untrue. However, we have to bear in mind that for an ancient Greek whose concept of 'civilisation' was based on the phenomenon of the *polis*, it made perfect sense to describe a formerly urbanised but now ruralised region in these terms.⁴²

The picture for Akarnania is almost identical to that for Aitolia. After the foundation of Nikopolis, Akarnania was assigned to the territory of the new leading urban centre, which was to become later a provincial capital.⁴³ The ancient authors speak of a depopulation of Akarnania caused

³⁷ Alcock 1993: 141–145.

³⁸ Bommeljé and Vroom 1995: 75.

³⁹ Bommeljé and Vroom 1995.

⁴⁰ Bommeljé and Vroom 1995: 88 fig. 2; Vroom 1993: 134 fig. 10.

⁴¹ Strabo 10.2.21; Rizakis 1997; Alcock 1993: 136–137; Kahrstedt 1950.

⁴² For a similar view regarding Boeotia cf. Wallace 1979: 174.

⁴³ Rizakis 1997; Alcock 1993: 136–137; Kahrstedt 1950.

by the forced synoecism of Nikopolis. According to them, many Akarnanian settlements were depopulated in order to contribute to Nikopolis' demographic strength, with only a handful of cities (i.e. Alyzeia, Ambrakia, Amphiloichian Argos, Leukas and Palairos) continuing to be inhabited as *perioikides poleis* (Strabo 7.7.5–6; 10.2.2–3; Paus. 5.23.3; 7.18.8; 8.24.11; 10.38.4).

Recent studies broadly corroborate the descriptions provided by the literary sources.⁴⁴ According to Lang and Petropoulos, a significant change in settlement patterns took place in Acarnania after the 1st century BC. The Classical-Hellenistic cities were either degraded or completely abandoned in favour of small communities situated on the coast or along river valleys or roads. Urban life appears to have been confined solely to Nikopolis, Patras and Naupaktos. As for the *perioikides poleis* referred to by Strabo, with the possible exception of Ambrakia and Leukas, none of the old or new data seems to confirm their survival.

Epirus

Epirus was one of the Greek regions most strongly affected by the conflicts of the first two centuries BC. Following the final defeat of Macedon in the Third Macedonian War of 168 BC, 70 Epirote cities are said to have been destroyed by the Romans, with 150,000 people being enslaved (Livy 45.34.1–9; Plut. *Aem. Paul.* 29). Although the latter figure might be exaggerated, the fact is that Epirus experienced a radical change in its settlement pattern under Roman rule, perhaps the most notable in Greece. The most important development which took place was the collapse of the Classical-Hellenistic urban system, which was replaced by an entirely new pattern consisting of a few cities occupying key locations. Instead of the 19 cities which are recorded in the sources for the Classical/early-Hellenistic period, we find only eight which continued to be operative in Roman times. Four of these were Roman foundations. In addition to this, the relative importance of coastal cities became much more pronounced in Roman times, with the old mainland urban centres decaying in favour of port cities and other coastal agglomerations, including some secondary settlements, a clear sign of the westward re-orientation of the settlement system of this region.

In southern Epirus all Classical-Hellenistic cities either disappeared or became secondary settlements, with the possible exception of Ambrakia, which, at least officially, may have survived as a *perioikic polis*. Instead of the polycentric urban system of Classical times we now find a mono-centric system dominated by the *civitas foederata* of Nikopolis, which from the 2nd century AD became the capital of the new Province of Epirus.

In central Epirus the only Classical-Hellenistic city which was still operative in Roman times was Dodone, despite the destructions it had suffered during the Roman attacks of 167 and 86 BC. All the other cities were either degraded or abandoned. The urban gap which emerged in this part of the region was filled by the Caesarian colony of Photike (probably refounded by Augustus), which had been a secondary settlement in pre-Roman times.

Northern Epirus had a low urbanisation rate compared to the southern part of the region, even in pre-Roman times. In terms of numbers this state of affairs did not change in the transition from Classical-Hellenistic to Roman times. The *poleis* of Orikon, Phoinike and Bouthroton continued to be active in the Roman era. Of course, Bouthroton experienced its acme under Roman rule, after becoming a Caesarian/Triumviral or, more probably, an Augustan colony. After its destruction in the 2nd century BC the city of Antigoneia did not show signs of renewed activity until late-Roman times. This urban gap was filled by Hadrianopolis, originally a secondary settlement, which was refounded by Hadrian to act as a central place and market centre for the surrounding communities of the valley.

⁴⁴ Lang 1994; Petropoulos 1991.

The cities of Roman Epirus were supplemented by some minor secondary settlements of which the coastal ones were the most thriving. Of course the most noteworthy of these were the port of Nikopolis at Ormos Vathy; Onchesmos, the port of Phoinike which after the decline of Phoinike itself became the main urban centre of the area in late Roman times; and an *ex novo* coastal site at Ladochori (near modern Igoumenitsa), which presents some urban features in the Roman period. To these coastal settlements we may add Elaias/Glykys Limen, the port of the Classical-Hellenistic city of Elea (abandoned in Roman times), which appears as a stopping place on the Peutinger map.

Ionian Islands

The Ionian Islands present a completely different picture from that which we have encountered in mainland Greece. At least in terms of numbers of cities, nothing seems to change in the Roman era. Of course the location of the cities of the Ionian islands between Italy and Greece favoured their role as stations in the east-west trading network of the empire. In this sense their survival and relative prosperity accord well with the picture we find in coastal Epirus. It is perhaps indicative that in Roman times the *poleis* of the Ionian Islands (except for Leukas apparently) were declared *civitates liberae*.⁴⁵

The most characteristic example is the island of Kephallonia, a *tetrapolis* island in Classical-Hellenistic times. In the Roman period one of its cities, Pronnoi, was degraded, but an *ex-novo* city appeared on the northern coast of the island, Panormos, so that Roman Kephallonia continued to have four self-governing *poleis*. The example of Kephallonia contrasts sharply with that of the Aegean island of Kea. Like its Ionian counterpart, Kea had been a *tetrapolis* island, but here a late-Hellenistic or early-Roman synoecism resulted in the survival of only two cities in imperial times.⁴⁶

As noted above, the city of Leukas perhaps continued as a (perioikic) *polis* depending on Nikopolis in Roman times. The city of Zakynthos, too, continued to be active. In the island of Kerkyra, the Classical-Hellenistic *polis* of Korkyra survived, but the late-Hellenistic/early-Roman period witnessed the appearance of a town-like settlement at Kassiope, on the north coast. In view of the location of this site, opposite Bouthroton and Onchesmos, its flourishing state during the first centuries of the Roman empire may be interpreted as a sign of an intensification in trade between Epirus and the Ionian islands.

The only city of the Ionian islands which seems to have been abandoned in Roman times was the *polis* of Ithaka, which was replaced by a secondary settlement in the southern part of the island.

Thessaly and adjacent areas

The settlement pattern of Roman Thessaly brings us back to the pattern which can be reconstructed for central Greece and for the central and southern Peloponnese. No Roman foundations are attested in this area, and it seems that imperial intervention was less intense here than in Epirus, Aitolia and Acarnania. Thessaly did not adopt a collective anti-Roman policy during the Macedonian wars which might have provoked a punitive reaction by the Romans. Significantly, the *koina* of the Thessalians and the Magnetes continued to be active in Roman times. Only those cities which had supported Macedon during the conflicts of the early 2nd century BC felt the consequences.

In addition to this, Thessaly was not a westward orientated region, while its settlement system was not as deeply affected by changes in Mediterranean trade networks as some regions of western Greece. Only during the late-Roman period, when an eastward re-orientation of the empire took place after

⁴⁵ Pliny *NH* 4.12.52, 54; Larsen 1938: 447; Alcock 1993: 23.

⁴⁶ In late Roman or early medieval times one more city ceased to exist as a self-governing *polis*, with Ioulis becoming the only urban centre of the island; see Cherry, Davis and Mantzourani 1991: 240–241.

the rise of Constantinople, were regions like Thessaly and eastern Lokris to present striking signs of redevelopment. On the other hand, given that Thessaly served as an important recurrent battlefield during the final two centuries BC, it seems unlikely that the urban system and the urban populations of the region remained entirely unaffected by the arrival of the Romans.

The 'hands-off' policy of the Romans and the consequences of the wars of the 2nd and 1st century BC seem to have resulted in a pattern of gradual but unmistakable decline for the urban system of Roman Thessaly. The data regarding the public buildings of the Thessalian cities as well as the evidence for coinage production (which will be examined below) are very telling in this regard: only Larissa and Demetrias, the leading cities of the region and the seats of the *koina* of the Thessalians and of the Magnetes respectively, present significant evidence.

Of the 54 Thessalian cities for which we have documentation in Classical-early Hellenistic times, only 25 have produced evidence confirming (or suggesting) their continued existence as self-governing *poleis* in Roman times. Apart from Larissa and Demetrias, the most important cities of Roman Thessaly were Atrax, Gomphoi, Krannon and Metropolis (in Thessaliotis), Lamia and Hypata (in Malis and Ainis respectively), and Thebai Phtiotides (in Achaia Phtiotis). During the early Roman several important cities were certainly or probably abandoned: Pherai and (possibly) Pharsalos, two of the leading *poleis* of Classical Thessaly, and New Halos, the Hellenistic city of Achaia Phtiotis (already defunct during Hellenistic times). One less important city, Argethia in Athamania, was also probably abandoned in Roman times.

Apart from the four cities which disappeared, three *poleis* continued in Roman times but only in a degraded form as secondary settlements. These downgraded settlements included Pelinna, which had taken the wrong side during the Macedonian wars.

While seven cities are known to have disappeared in or by Roman times (with varying degrees of certainty), we also lose track of twenty-two further smaller urban communities, but since a lack of archaeological evidence might be responsible for this lack of visibility, we cannot be certain that all of these cities, or even most of them, really ceased to exist as independent communities.

The pattern for the main secondary settlements is similar to that for the cities, with some clear cases of abandonment and some examples of continuity.

The region-by-region survey presented in this section shows that the impact of Roman domination on the urban system of Greece was not homogeneous. The main part of 'old Greece' (i.e. central Greece and the Peloponnese) was characterised by the absorption of small urban communities by their larger neighbours. The beginnings of this phenomenon can be traced back to the Classical/early-Hellenistic period, but it was definitely completed under the empire. In one area (i.e. Laconia) political decisions taken by the Romans after the defeat of Nabis produced exactly the opposite phenomenon, namely the raising of secondary settlements to *polis* status. In yet other areas (i.e. Aitolia and Akarnania) the cities completely vanished. Finally, in some areas (i.e. the Ionian Islands) the urban system survived almost intact, while elsewhere (i.e. in Epirus) a radically new urban system was implemented.

Despite these regional differences, an overall evaluation points to a severe decrease in the number of self-governing cities taking place between the Classical-Hellenistic and early-imperial periods, either as a result of abandonment or due to degradation. At least 40 Classical-Hellenistic cities were abandoned in Roman times, while 70 were degraded to secondary settlements. In addition to this there are 34 Classical-Hellenistic cities of which we do not find a single trace in early Roman times. At least some of these invisible cities are likely to have disappeared, or to have been downgraded, as well (Figure 3).

Classical - early Hellenistic times		Roman imperial times	Total
Polis	>>	Abandoned	40
Polis	>>	Secondary settlement	70
Polis	>>	?	34
Secondary settlement	>>	Abandoned	40
Secondary settlement	>>	?	22
Secondary settlement	>>	Polis	10
-	>>	Polis	3
-	>>	Secondary settlement	3
Total number of Classical-Hellenistic Poleis			292
Total number of Roman imperial Poleis			161
Total number of Classical-Hellenistic secondary settlements			172
Total number of Roman imperial secondary settlements			173

Figure 3. The transition of the primary and secondary settlements of southern Greece from Classical-Hellenistic to Roman times in numbers.

Given that the urban centre of the typical ‘Normalpolis’ of Classical and early-Hellenistic times accommodated between 70 % and 80 % of the total population of each ‘city-state’,⁴⁷ it is almost impossible to avoid the question as to what the demographic implications of the certain disappearance of 110 self-governing *poleis* (abandoned or degraded) might have been. In this context it should be noted that the degradation of self-governing cities to secondary settlements is believed to have had a negative economic and demographic impact on the agglomerations concerned.⁴⁸

Where did the former city-dwellers do? Did they simply vanish, as claimed by the ancient authors, or were they distributed among other cities? In her influential study on Roman Greece Alcock⁴⁹ argues that the decline in the numbers of rural sites and surviving cities which (she admits) took place in early Roman Greece must not be interpreted as indicating population decline, but rather as reflecting population displacement, from rural areas to cities and from shrinking cities to larger urban centres. In essence she argues that many cities were abandoned or degraded in favour of a much smaller number of remaining cities, which were on average much larger than their Classical and early-Hellenistic predecessors. In other words, we might be dealing with a process of nucleation rather than with urban or demographic decline. Only an analysis of city-sizes can confirm or refute this interpretation.

How big were the cities of Roman Greece?

The archaeological evidence which might be used to assess the sizes of the cities of Roman Greece has never been collected systematically, and at least some of the evidence which has been collected, or might be collected, is problematic. It has often been noted that the city walls of the Classical/early-Hellenistic period are an unsatisfactory basis for estimating the extent of built-up areas, and if this is true of the Classical-Hellenistic area, it is of course even more problematic to use 5th century or 4th century walls to estimate the size of areas occupied by buildings in the Roman imperial period.⁵⁰ During the first centuries of the Roman empire no city walls were built to protect cities (except in the case of Nikopolis), for the obvious reason that Greece was far from the imperial frontiers.

⁴⁷ Bintliff 2012: 322; Hansen 2006: 82–83.

⁴⁸ For Achaia see Rizakis 1993: 768–769.

⁴⁹ Alcock 1993.

⁵⁰ See Hansen 2006: 73–76. Hansen’s view that in Classical *poleis* with walled areas of 1–9 ha c. 67 % (two thirds) of the walled area was inhabited, whereas the corresponding percentages were 50 % and 33 % for those cities with walled areas of 10–150 ha and > 150 ha respectively, is broadly plausible but also over-schematic. Only in the case of cities which had very small walled areas (up to 10 ha) can the size of the walled area be regarded as a strong indicator for small city size during the Classical period.

At this moment there are only 16 cities (among them the port of Nikopolis at Ormos Vathy), for which we have reliable size estimates. In most cases we are dealing with intensively surveyed sites or with cities which have been investigated more or less exhaustively. In a few cases size estimates are available for both the Classical/early-Hellenistic and the Roman periods, permitting a first examination of Alcock's theory.

Figure 4 shows the results from these 16 sites. Although the list is frustratingly short, the small size of the sample is to some extent compensated for by a relatively good geographical spread (with estimates coming from the Corinthia, the Argolis, Euboea, Boeotia and Epirus), and by the fact that both large and important cities and cities of minor significance are represented. On the positive side it may also be noted that Corinth and Nikopolis, the capitals of the provinces of Achaia and Epirus respectively, and thus the two most important urban centres in the area under discussion, appear in the list.

City	Classical-Hellenistic size in (ha)	Roman size in (ha)
Corinth	≥ 150?	144
Phlious	40–80	40–80
Methana	8	5
Hermion	17	12
Halieis	15	0
Asea	15	0
Eretria	40–80	20
Tanagra	60	30
Thespiiai	74	34
Koroneia	38	12
Hyettos	30	15
Nikopolis	0	150
Ormos Vathy	0	22
Bouthroton	10	27
Hadrianopolis	<13	13
New Halos	40	0

Figure 4. Sixteen cities for which reliable size estimates can be provided.

Regarding Corinth, David Romano's urban and rural survey has shown that the size of the Flavian city was c. 144 ha, while the walls of Nikopolis and the research done there suggest that the size of the occupied area cannot have exceeded 150 ha. These sizes can be used as a plausible upper threshold for the city sizes of southern Greece during the first centuries of the Roman empire. Another notable feature which emerges from the list is that, with the exception of Phlious, all cities which were not provincial capitals occupied fewer than 35 ha in Roman times.

As far as the transition from the Classical/early-Hellenistic period to the early Roman empire is concerned, the data show that almost all those cities of the sample which remained active in Roman times were much smaller than their predecessors. In Boeotia and Euboea in particular the Roman cities were about half as large as their Classical-Hellenistic counterparts. The only exceptions are Bouthroton and Hadrianopolis in northern Epirus, both Roman (re-)foundations established in pre-existing small settlements, and Phlious in Peloponnese, claimed by Alcock as an example of a city which became larger in Roman times than it had been in the Classical period.⁵¹ It must be noted, however, that Alcock does not put exact figures on the size of Classical and Roman Phlious, and her maps suggest an increase in artefact density rather than an expansion of the occupied area. In addition to this, Bintliff has raised doubts about the Roman expansion of Phlious based on 'source criticism' of survey interpretations.⁵² As he points out, the growth of Roman Phlious is based on the spatial distribution of groups of sherds which can be assigned to more than one period. If we limit our analysis to the 'definitely' dated sherds listed in Alcock's table,⁵³ we arrive at the conclusion that Roman Phlious occupied a *smaller* area than its Classical predecessor.

⁵¹ Alcock 1991, 1993: 98–100.

⁵² Bintliff 2012: 315.

⁵³ Alcock 1991: 447 fig. 10.

In the case of Corinth, perhaps the most critical city when it comes to analysing the transition from Classical to Roman times, we run up against the difficulty that a reliable estimate for the area occupied by the Classical/early-Hellenistic city is still lacking. Despite this uncertainty, it is difficult to believe that Classical Corinth was smaller than the Flavian city. While Bintliff⁵⁴ suggests the Classical city might have been three times bigger than its Roman successor, Rizakis⁵⁵ believes that the areas occupied by Classical Corinth and by the Roman city were roughly comparable in size. In Classical/early-Hellenistic times the main function of the Long Walls of Corinth was to safeguard access to its port during a siege, and we can be certain that these walls enclosed open fields.⁵⁶ From the 500 ha enclosed by the city walls the areas occupied by the acropolis and its steep slopes have to be deducted. Adopting this approach, we arrive at the conclusion that the approximately 240 ha used by the Caesarian plan of the re-founded city must be regarded as a maximum threshold for the built-up area of any period. In fact, there are reasons to think that the Caesarian plan (which might have exceeded the boundaries of the built-up area of Classical-Hellenistic times) proved to be over-ambitious and that within a few generations the colony of Corinth was re-planned on a diminished scale to match real population needs.⁵⁷ A built-up area of c. 150 ha for Classical-Hellenistic Corinth within the 500 ha enclosed by the city walls would be in accordance with Hansen's suggestion that in the case of cities with walled areas exceeding 150 ha only about one third of the space enclosed by the city wall was occupied. At the same time such an estimate would be in line with similar sizes which have been attributed to other large cities of Classical/early-Hellenistic Greece, such as Athens and Thebes (see below). All in all, there are no reasons to credit Classical-Hellenistic Corinth with a built-up area smaller than that of the Flavian city (144 ha).

The evidence just discussed does not support Alcock's theory that the undeniable decline of many of the smaller cities of mainland Greece was compensated for by the simultaneous expansion of Corinth and other large cities. To judge from our sample, the late-Hellenistic and early-imperial periods witnessed the disappearance of one city in Corinthia and Argolis, the degradation of two other cities, and a decrease in the size of various other cities. Yet Roman Corinth was either somewhat smaller than its Classical/early-Hellenistic counterpart or at best about equally large. In the western parts of mainland Greece, in an analysis of the urban system of Classical and early-Hellenistic Akarnania Lang records urban centres with a total walled area of 630–700 ha.⁵⁸ Even if we suppose that only about half of the urban areas of these cities were occupied by public or private buildings, the rise of Nikopolis (with its 150 ha, 170 if we add its port) hardly began to compensate for their disappearance. This conclusion becomes even more unavoidable if we take into account the decayed cities of southern Thesprotia (e.g. Kassope) which in Roman times belonged to the territory of Nikopolis.

However someone could argue that the sample used here is small to apply the aforementioned model at a general level. In fact, in addition to this relatively small group there is a much larger category of cities whose sizes can be established less precisely or with a lower degree of confidence. Ancient cities belonging to this category include cities which lie buried beneath modern agglomerations, but where sufficient data have been collected during rescue excavations to permit rough size estimates, extensively surveyed cities for which size estimates are provided in the scholarly literature, and other cities for which the scholarly literature offers size estimates which do not reach the same level of accuracy as in the case of intensively surveyed sites.⁵⁹

⁵⁴ Bintliff 2012: 323.

⁵⁵ Pers. comm.

⁵⁶ Bintliff 2012: 323.

⁵⁷ Romano (2000: 97, 2003: 294,) argues that the re-planning of the city implies that the population of the original Roman colony never became as large as originally anticipated.

⁵⁸ Lang 1994.

⁵⁹ In this category we may also include some cities which can be assigned to the 1–20 ha bracket based on the small size of their walled areas. For example, in the case of a Classical/early-Hellenistic city whose walls enclosed an area of only 10 ha, we can be reasonably

Figure 5 gathers the data for 29 cities whose sizes during the early-imperial period can be determined with a reasonable degree of certainty. The only city included in this list which experienced growth in Roman times is Patras. This city seems to have expanded far beyond the limits of its Classical/early-Hellenistic predecessor after becoming a Flavian colony. All the other cities for which we have data, severely decreased in Roman times. In the Peloponnese, Roman-period Argos, Stymphalos and Kleitor seem to have been half as large as their predecessors. The same probably happened to the port of Athens, Peiraieus, while the area occupied by the city of Athens seems to have been similar to that occupied by its Classical/early-Hellenistic predecessor (although population density might have declined),⁶⁰ leaving no doubt that the city itself was maintained much better than its port.⁶¹ In Boeotia, Roman-period Thebes seems to have been a shadow of the giant city of Classical times, and Roman Plataiai was also smaller than it had been in previous centuries. In Phokis, Elateia seems to decrease in size during the Roman period, while Roman Kallion/Kallipolis in Aitolia was only half the size of its predecessor. In Thessaly, Roman Demetrias occupied only about half of the area occupied by its Hellenistic predecessor at the time of foundation.

These data reinforce the impression conveyed by the evidence relating to those 16 cities for which precise size estimates can be offered. As we have seen, the growth of Nikopolis did not fully compensate for the disappearance of numerous cities in Epirus, Akarnania and southern Thesprotia. Similarly, after large parts of Achaia and Aitolia had been added to the territory of Patras, this city became about 60 ha larger than its Classical predecessor. However, this expansion did not offset the disappearance of those cities whose territories had been absorbed into the territory of the Flavian colony. Before the re-foundation of Patras the city of Dyme was probably bigger than 40 ha, and the Aitolian cities of Kalydon and Pleuron, to mention only two of the previously self-governing cities which were incorporated in the territory of Patras, had occupied an aggregate area of approximately 50 ha in the Classical and early-Hellenistic periods.

City	Classical-Hellenistic size in (ha)	Roman size in (ha)
Sikyon	70–80	70–80
Argos	80–100	55
Aigeira	20–40	20–40
Aigion	20–40	20–40
Patras	40	100
Tegea	70–80	70–80
Stymphalos	20–40	1–20
Kleitor	40–80	20–40
Alagonia	3?	3
Leuktron	5	5
Akriai	1–20	1–20
Aigosthena	10	3
Athens	120–150	120–150
Peiraieus	100–150	45–55
Chalkis	40–80	40–80
Thebes	130	30
Plataiai	35	20
Naryka	4	4
Skarpheia	35	35
Elateia	>40	37
Delphi	20–40	20–40
Tolophon	1–20	1–20
Kallion/Kallipolis	25	10
Panormos	0	7
Larissa	c. 80	40–80
Demetrias	80	35
Echinos	1–20	1–20
Hypata	20	20

Figure 5. Twenty-nine cities whose size can be estimated within a reasonable degree of certainty.

certain that the size of the built-up area did not exceed 10 (or max. 20) ha, and such a city can be safely assigned to the 1–20 ha category. If there is no evidence to suggest an expansion in Roman times, then the city in question can be assigned to the same size bracket for its Roman phase.

⁶⁰ According to Travlos (1960: 116), the houses of Roman Athens were, on average, larger than those of the Classical period. More importantly, the eastward extension (c. 41 ha) of the ‘New City’ of Hadrian (which ‘compensated’ for the loss of Koile, which had occupied c. 36 ha), was essentially a luxury *proasteion* with villas and baths scattered in a park-like landscape; see Zachariadou 2008. Both these clues suggest a less intensive use of domestic space of Roman Athens compared to its Classical/early-Hellenistic predecessor.

⁶¹ Bintliff (pers. comm.) suggests that Athens survived as a favour from Rome and mainly as an important cultural city rather than as a major political or economic centre. In his view, the shrinkage of Peiraieus, which had been the economic hub of the Classical and early-Hellenistic city, supports this interpretation. For Athens as a cultural centre serving Rome’s policy, see Spawforth 2015.

In other parts of Greece large numbers of previously self-governing *poleis* disappeared without any kind of demographic compensation being provided by the foundation or re-foundation of large urban centres. No large cities comparable to Nikopolis or Patras appeared, despite the undeniable decline of large numbers of cities; and during the first three centuries of the Roman-imperial period Corinth and Athens, the two other big urban centres of southern Greece, were either smaller than their Classical predecessors or at best equal in size.

Therefore the evidence available at present does not support Alcock's theory that the first centuries of the Roman period witnessed large-scale migration to a handful of exceptionally large cities rather than population decline in Roman Greece. Of course, there are some clear examples of nucleation (i.e. Nikopolis and Patras), but these are not enough to make this scenario work for Roman Greece as a whole. While Roman Greece had between 97 and 131 fewer cities than the same area during the Classical and early-Hellenistic periods,⁶² most of the surviving cities did not grow. The cities of Roman Greece as a whole were not only fewer but also smaller than their Classical/early-Hellenistic predecessors.

Figures 6 and 7 provide a visual reconstruction of the transition from the Classical-Hellenistic to the Roman urban pattern in Greece. On these maps a third group of cities for which only speculative estimates are available has been added to those cities whose sizes can be estimated with a high, or at least with a reasonable degree of confidence. The cities belonging to this third group can only be assigned to broad size-brackets, as the evidence does not permit us to be more precise. Needless to say, in the absence of sufficient archaeological clues it can be difficult even to assess the likelihood that a particular city belonged to a particular size-group. It is, however, my contention, that at least some headway can be made by taking into account the evidence which is available for those cities which are better served by the archaeological record and the general historical-archaeological context of every case. To give a concrete example, while we have no reliable evidence permitting us to estimate the size of Classical/early-Hellenistic Megalopolis, it is possible to assign this city to a broad size category by taking into account the size of its walled area, the impressionistic estimate of its built-up area provided by other scholars, and by comparing it with other cities. (It seems unlikely, for instance, that Classical Megalopolis was bigger than Athens or Thebes). Similarly, although we do not have specific evidence for the size of Roman Megalopolis, we do happen to know that this city fared much worse than Roman-period Tegea.⁶³ If we have a rough idea of the size of Roman Tegea, then it should also be possible to assign Roman Megalopolis to a broad size-bracket. There is no need to explain that any decision to assign a particular city to a particular size category, however broadly defined, is necessarily to some extent impressionistic and therefore open to challenge. However, while I do not have the slightest doubt that some of the assessments I have made for individual cities will have to be revised in the light of future research, I found the attempt to use the deficient data available at present to arrive at a general reconstruction of the urban system of Roman Greece very worthwhile, and I also think that the overall reconstruction is not too far from reality.

If the overall patterns shown by Figures 6 and 7 are broadly correct, we cannot avoid the conclusion that the urban system of Roman Greece had a very different appearance than that which can be reconstructed for the Classical and early-Hellenistic periods. In Classical/early-Hellenistic times we find a long string of large urban centres stretching along the area of 'Old Greece' in a quasi-linear pattern which runs from north-south. In complete contrast to this Classical pattern, the southern regions of Roman Greece had only four large cities (Nikopolis, Patras, Corinth and Athens), which were distributed along a west-to-east axis along the Gulf of Patras, the Corinthian Gulf and the Saronic Gulf. While Corinth and Athens

⁶² The figures of 97 and 131 were calculated as follows: 40 vanished cities + 70 degraded cities + 34 Classical/Hellenistic cities which have not produced any evidence for occupation in early-Roman times. New *poleis*: 5 Roman foundations + 8 villages in the Mani which were raised to *polis* status.

⁶³ Roy 2010: 63.

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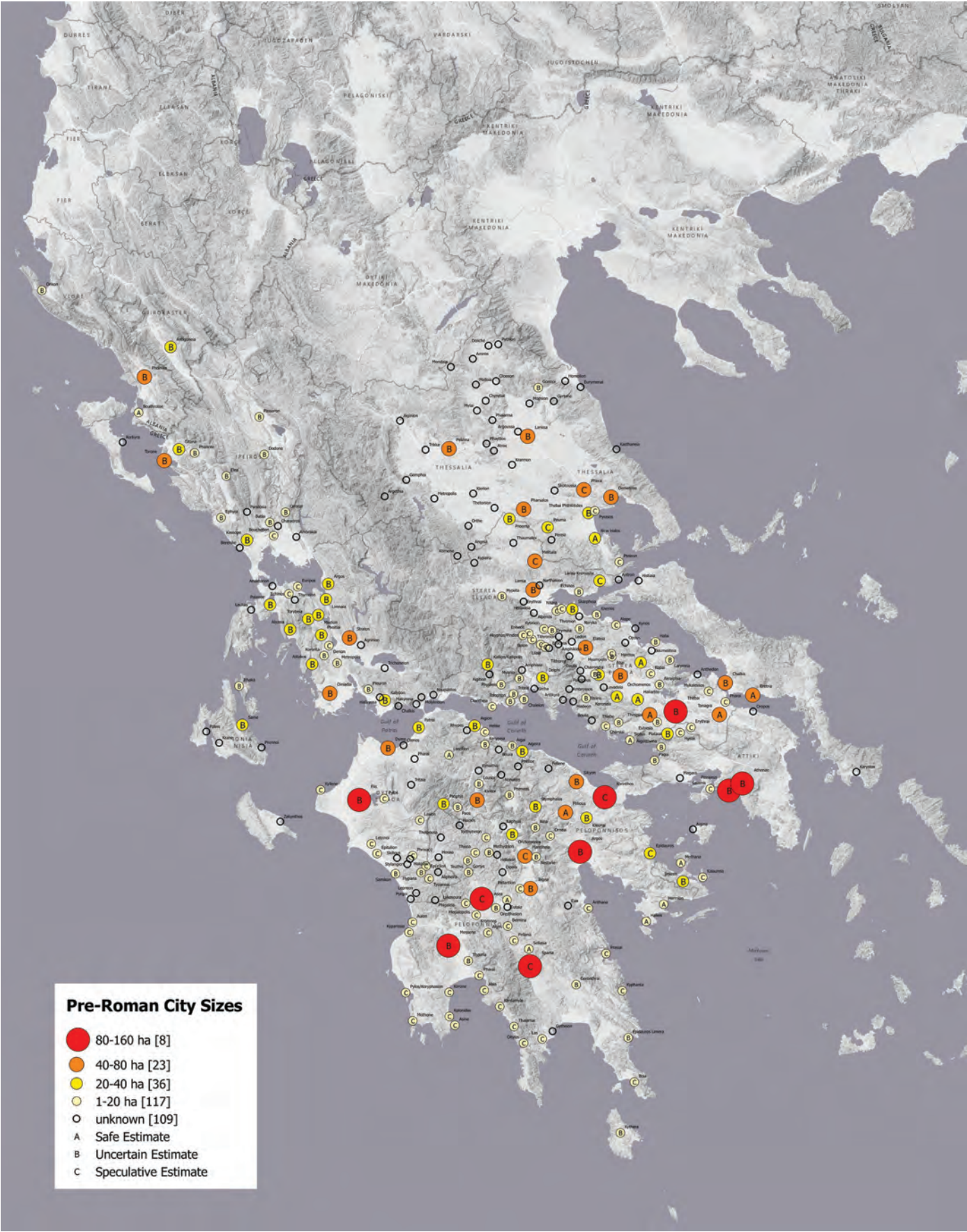


Figure 6. Size estimates of the cities during the Classical-early Hellenistic period.

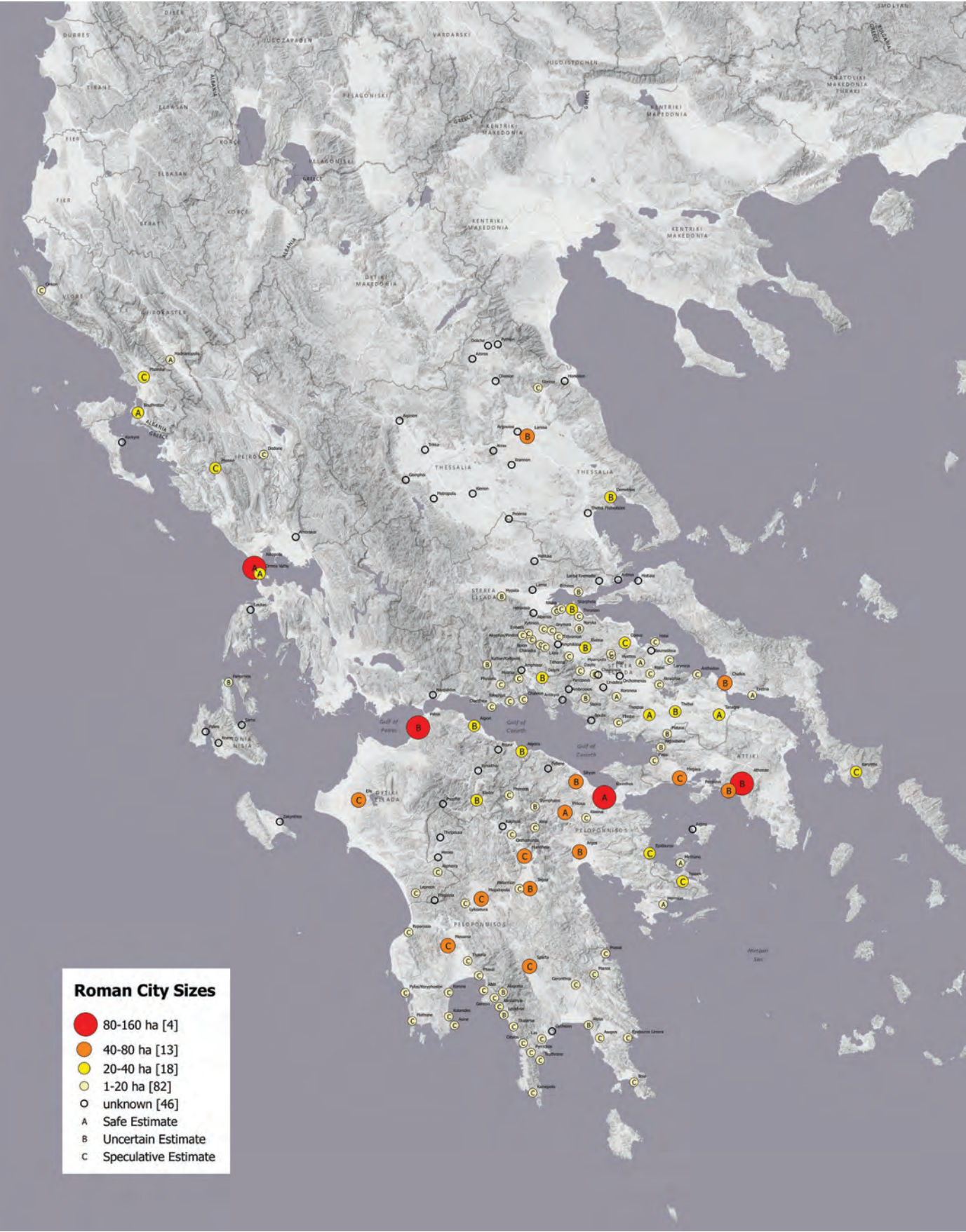


Figure 7. Size estimates of the cities during the Roman imperial period.

had been among the largest cities of southern Greece in Classical times, 5th century and 4th century Patras had been a backwater city, and of course Nikopolis was also a newcomer. The expansion of these two cities radically changed the urban and territorial pattern of western Greece.

Thiessen polygons can help us to make some sense of this urban pattern (Figure 8). Needless to say, drawing such polygons is always a theoretical exercise, and it is totally obvious that the notional territories which are obtained using this method do not always match with the historical reality. In brief it assumes that urban territory borders are most likely to lie intermediate to neighbouring cities and from this creates putative 3-dimensional city territories. This must *a fortiori* be true if the polygons are applied without taking the geomorphology into consideration, as has been done in this study.⁶⁴

Despite these distortions the polygons of Figure 8 convey a general idea of the relationships between urban patterns and territorial divisions. To begin with, we immediately note a discrepancy between the (large) territories of western Greece and the much smaller ones of the south-eastern landscapes. Indeed, while some cities of Epirus were smaller in size than most cities of the Peloponnese, they had bigger territories. This discrepancy can be attributed to the radical transformation of western Greece under Roman rule in comparison to 'old Greece' where territorial patterns remained closer to what they had looked like in the Classical and early-Hellenistic periods. This observation applies also to the four primary cities of southern Greece: while the territories of Nikopolis and Patras, both of which were situated in western Greece, became much bigger, helping us to account for the expansion of these two cities, Corinth and Athens, both of which were situated in 'old Greece', more or less kept the territories they had had in Classical-Hellenistic times, providing us with a partial explanation of why Roman Corinth and Athens do not seem to have experienced strong decline or strong expansion during the Roman imperial period. Such a perspective also helps to explain the paradox that Corinth, despite being the capital of the province of Achaia, had a smaller territory than the other three big cities. Theoretically, Nikopolis (the only big *ex novo* city in Greece) and Patras (the only pre-existing city which grew significantly in Roman times) should have had the largest territories in Roman Greece. Interestingly enough in the Thiessen polygons the boundary between the territories of these two cities coincides with Acheloos river, which probably was the 'real' boundary between the two cities and later became the boundary between the provinces of Achaia and Epirus.

Like the territories of Athens and Corinth, most of the other large territories of old Greece, like those of Megara, Tanagra, Argos, Epidauros (with the secondary centre of Asklepieion), Tegea, Megalopolis, Messene and Sparta represent the Classical-Hellenistic situation.

Roman Thessaly had a lower urban density than southern Greece, and for this reason the territories of the Thessalian cities are larger. It should, however, be kept in mind that this region contains a large number of Classical-Hellenistic cities on which we do not have any information for the Roman period. As I have explained, it is difficult to determine whether this represents a real situation or simply a gap in archaeological research. Regardless of how we choose to answer this question, Figure 8 shows that the important cities of this region (e.g. Larissa, Demetrias and Thebai Pthiotides) take the lion's share of the Thessalian valleys.

⁶⁴ In Achaia for example, Tritaia is situated in the territory of Psophis and Leontion in that of Kynaitha, while in reality both settlements belonged to the territory of Patras. Similarly, Keryneia, which appears in the territory of Boura, is known to have been situated in the territory of Aigion. In short, the territories of Patras and Aigion extended farther to the south than is suggested by my map. Similarly Thisio, Methydriion and Helisson should fall within the territory of Megalopolis, and Phalara within that of Lamia. The map might be further refined by ignoring the boundaries between Leukas, Nikopolis and Ambrakia, as both Leukas and Ambrakia were perioikic *poleis* within the territory of Nikopolis. Similarly, the boundary between Patras and Naupaktos may not have existed, as the latter probably was a subordinate city depending on the former. Likewise, contrary to what the map suggests, there was no boundary between Elis and Olympia, as the latter was part of Elis. Finally, the boundary between Athens and Eretria ran through southern Euboean Gulf, since the territory of Oropos belonged to Athens in Roman times.

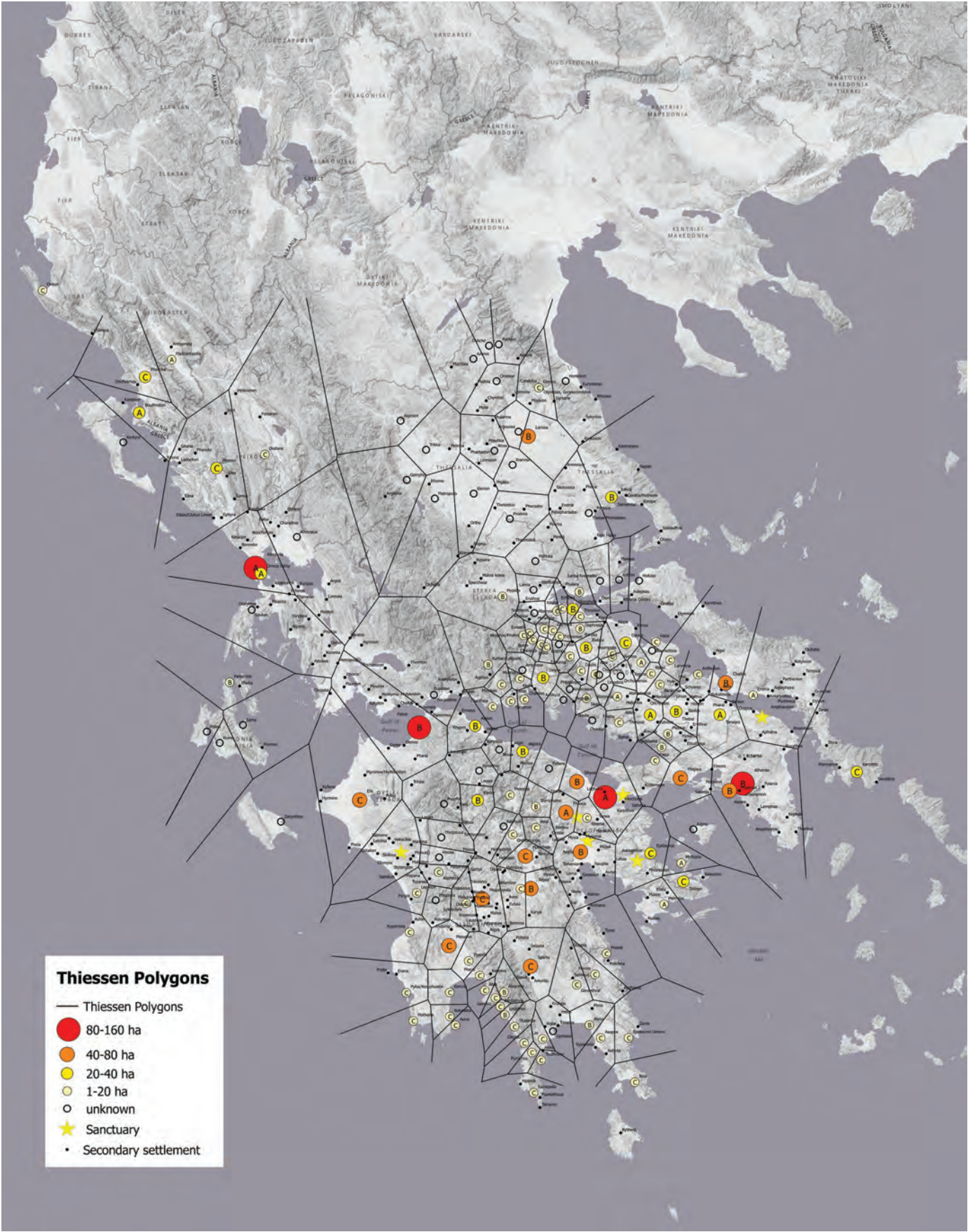


Figure 8. Thiessen polygons applied in the cities of the Roman imperial period.

A final remark regarding the Thiessen polygons concerns the location of the secondary settlements. The majority of these appear to have been situated close to the territorial boundaries, suggesting that secondary settlements filled the gaps left by the system of self-governing cities, for instance by serving the market needs of the rural population. In some areas, such as Thessaly, the evidence for such settlements is very scant, but yet again this might reflect the patchiness of the archaeological record rather than the actual shape of the settlement hierarchy during the Roman period.

The evidence from public buildings and coinage

It is self-evident that, apart from juridical status and city-size, the presence or absence of public buildings and of local mints are important parameters for the urban profile of ancient settlements. As far as the public buildings of its cities are concerned, Greece is a special case, for the obvious reason that, unlike many *ex-novo* cities in other parts of the empire, most Greek cities already possessed various public buildings, many of which were still standing in the Roman period. In so far as new public buildings were erected in the cities of Roman Greece, their appearance helps us to determine which cities were flourishing. In an area with so many ‘legacy’ buildings, however, it is also important to ask which of these buildings were still functioning in the period under discussion, and how many of them were kept in good shape. It is logical, for example, to suppose that the majority of the settlements which had *polis* status, even the tiny ones, had a functional *agora*, but the real issue here is to know whether the *agoras* of these cities were being kept in good repair in the Roman period. Pausanias’ comments on the current state of public buildings or areas are not always helpful. While his famous comment on the wretched state of Panopeus, or his statement that in his time the *agora* of Elis was used by the Eleians to train their horses (6.24.2), or even his brief remark on the (apparently public and Roman) baths of Lilaia (10.33.4) can be useful, brief references to the presence of a theatre or a *stadion* (apparently Classical-Hellenistic) say very little. Archaeology takes priority in this matter.

Figure 9 gathers evidence from 53 sites⁶⁵ where we have archaeological evidence for existing public buildings being repaired or modified during the Roman period or for entirely new buildings being erected during this period. Figure 10 illustrates the geographical distribution of this evidence, and it is instructive to compare this pattern with the geographical distribution of Greek cities belonging to various size-brackets (Figure 7). Six key public buildings were included in my analysis: *agoras*, theatres, *odeia*, *stadia*, and two characteristic elements of Roman urban life, aqueducts and public baths.⁶⁶

Based on this survey some interesting quantitative conclusions can be drawn. First of all, of the 161 cities which are known to have existed in Roman Greece, less than one third have produced archaeological evidence for public buildings being repaired or adapted in the Roman imperial period. On any view, this is a low score. Moreover, we note that those cities where most public buildings were renovated or erected in Roman times were situated in the Peloponnese or in Epirus rather than in central Greece or Thessaly (Figure 11), an observation which tallies well with the findings of the previous section. In terms of numbers of surviving cities, and also in terms of the number

⁶⁵ 47 cities (Peraieus included) + 6 important sanctuaries = 53.

⁶⁶ I have excluded from my list cases difficultly defined through archaeology. The *gymnasion* for example, was first of all an institution rather than a building, hosted in a large area or in building complexes including several constructions (e.g. *stoai*, baths, *stadion/xystos*, *palaestrae* etc.) each of them not always identified as part of the *gymnasion*. In fact, in the majority of the cases the *gymnasia* are attested epigraphically and not archaeologically. Actually in this category could fall even the *agora* (a public space including several constructions rather than a building itself) but here the situation is much better. The concept of the exercise is not to identify which institutions of the city were active in Roman times (it is self-evident that every *polis* had a functional *bouleuterion* or *gymnasion*) but how much wealth the city (or its patrons) invested in its public buildings. In doing so, a selection of clearly defined building-cases was necessary to facilitate the exercise. On the other hand it is true that this list could include several other buildings (e.g. *nymphaea*, fountains etc.) but the study process indicated that their inclusion would not severely alter the situation due to the small number attested. Finally, from the six types of public buildings examined here (*agoras*, theatres, *odeia*, *stadia*, aqueducts and public baths) those whose date remains disputed have been excluded from my tallies. In the case of baths, a few buildings which were certainly Roman but might have been private rather than public do not appear in my lists.

City	Agora	Theatre	Odeion	Stadion	Aqueduct	Baths
Isthmia		•				•
Korinthos	•	•	•	•*	•	•
Sikyon	•	•			•	•
Argos	•	•	•		•	•
Asklepieion		•	•		•	•
Epidauros	•	•			•	•
Heraion Argous						•
Hermion					•	
Phlious	•	•				
Aigeira		•				
Aigion		•				•
Patrai	•		•	•	•	•
Elis		•				•
Olympia			•		•	•
Heraia						•
Kleitor	•					
Mantineia	•	•				
Megalopolis	•				•	•
Tegea		•				•
Thelpousa	•					•
Messene	•	•	•	•		•
Thouria						•
Sparta	•	•			•	•
Gytheion		•			•	•
Megara						•
Athens	•	•	•	•	•	•
Peiraieus		•			•	•
Eleusis					•	•
Aidepsos						•
Chalkis						•
Amphiareion		•				•
Chaironeia		•				
Lebadeia					•	
Plataiai		•				
Thebai	•	•				
Antikyra						•
Delphi	•	•		•		•
Lilaia						•
Amphissa						•
Naupaktos						•
Bouthroton	•	•			•	•
Dodone		•				
Hadrianopolis	•	•				•
Phoinike		•			•	•
Nikopolis	•	•	•	•	•	•
Korkyra	•					•
Panormos	•		•			
Same					•	•
Demetrias		•				•
Lamia					•	
Larissa		•				•
Metropolis						•
Thebai Phtiotides		•				
Total	20	30	9	6	20	40

Figure 9. Cities (and sanctuaries) where public buildings are known to have been repaired or erected in the Roman period. * = circus

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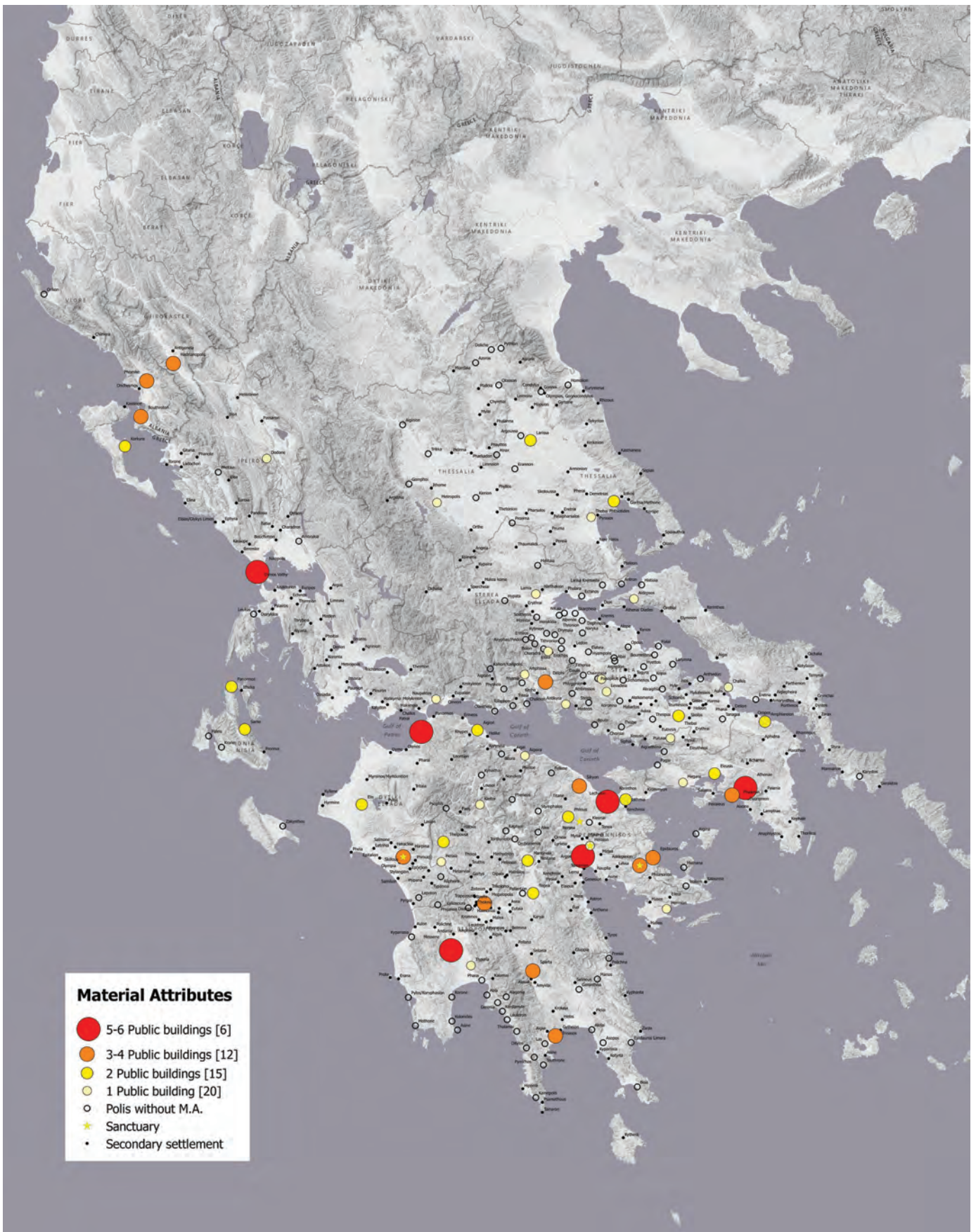


Figure 10. The 52 cities (and sanctuaries) with archaeological evidence for existing public buildings being repaired/modified or for entirely new buildings being erected during the Roman imperial period.

Geographical areas	Cities per area	Cities per area attesting material attributes	%
Epirus and Ionian Isl.	15	8	53%
Peloponnese	62	24	38%
Central Greece	60	16	26%
Thessaly	24	5	21%
Total	161	53	33%

City size	Number of cities per size	% of cities per size attesting material attributes	Number of (type) public buildings attested
1–20 ha	82	8.50%	1 (3)
20–40 ha	17	53%	1–2 (3–4)
40–80 ha	12	100%	(1) 2–5
80–160 ha	4	100%	5–6

Figure 11. Quantitative estimations of the fifty cities attesting material attributes in the Roman period. Numbers in () indicate rare cases.

of large and medium-sized cities, central Greece and Thessaly present a significantly less positive picture in Roman times than the Peloponnese, while the urban system of Epirus was completely restructured by the Romans onto a few elaborate urban foci.

Another interesting question concerns the relationship between public buildings and city sizes (Figures 7, 10 and 11). If we look at the cities of Roman Greece from this angle, it appears that the vast majority of those cities which do not present any evidence for public buildings being erected or repaired during the Roman period belong to my lowest size-bracket (1–20 ha). Since the cities belonging to this tier account for a very large proportion of the cities of Roman Greece (51%, see Figure 7), this observation goes a long way to explaining the relative scarcity of material attributes in Roman Greece as a whole. In fact only 8.5 % of these cities have produced evidence for public buildings being renovated or erected during the first three centuries of the Empire. Those cities which can be assigned to the 20–40 ha bracket score much better in this regard, with 53% of them providing evidence for Roman interventions regarding public buildings. In the case of the two highest city size categories (40–80 ha and 80–160 ha) we note that all the cities belonging to these groups renovated some public buildings or received entirely new ones.

Interestingly, it is also possible to observe a relationship between the estimated sizes of cities and the number of public buildings which were either renovated or newly constructed in Roman times: as one should expect, the bigger the city the more evidence for material attributes it provides. Moreover, to the extent that cities belonging to the 1–20 ha bracket present any evidence for material attributes at all, this evidence is restricted to one type of building only (the only exception being Hadrianopolis in northern Epirus, which was a Roman foundation). Cities belonging to the 20–40 ha bracket usually provide evidence for the erection or refurbishment of one or two types, but some of them have produced evidence for three or even four types of public buildings being built or repaired (i.e. Epidauros, Delphi, and the Epirote cities of Bouthroton and Phoinike). Those cities which have been assigned to the 40–80 ha bracket score between two and five types of buildings (with the rare cases of Megara and Chalkis providing evidence for only one type each, possibly reflecting the limitations of the archaeological record), while the four biggest cities of Roman Greece (Nikopolis, Patras, Corinth and Athens) attest Roman interventions (mostly new foundations) regarding almost all the six key public buildings under examination. Perhaps not

surprisingly, the most common public building in the cities of Roman Greece, even in the small ones, was the public bath. Then come the (new or renovated) theatre and agora, the aqueduct, while the *odeion* and *stadion* were ‘luxury’ elements which were attributed only to the most important urban centres (see Figure 9).⁶⁷

Another way of corroborating or nuancing the findings of the previous sections is to look at coinage. This is a delicate matter, so before proceeding with the presentation of the data permit me first to explain how the argument works, based mainly on the conclusions provided by Katsari.⁶⁸

In theory provincial coinage was dependent on the central authorities according to the needs of the empire, after the intervention of the local governors and the permission by the emperor. The minting policies varied among cities. For these reasons it may be argued that coinage production was irrelevant to other aspects of a city’s profile (e.g. size, public buildings) and that, in short, should not be used as indicator for the ‘blossoming’ or not of a city.

However, the situation was different. When Augustus reformed the monetary system, he introduced small change for practical purposes (e.g. state payments, minor commercial transactions etc.). In the western provinces the cities rarely produced their own bronze coins, which usually were struck in Rome.⁶⁹ ‘The situation in the eastern provinces was somewhat different, since a large number of civic mints undertook the production of the bulk of small change. We may be certain that such mints antedated the Roman annexation of these regions, since Hellenistic cities and kingdoms used to be responsible for the supply of the markets with currencies. The Romans decided not to interrupt this tradition and seem to have tolerated, if not encouraged, the survival of the civic and other local mints. During the Roman Principate eastern cities were responsible for the funding and issuing of bronze coinages.’⁷⁰ The council (*boule*) was involved in the decision-making process with regard to minting and local magistrates may have been involved in the production. ‘Once a magistrate was appointed, then, he probably took upon himself the minting of coins in the same way he undertook other tasks, e.g. the construction of public buildings. [...] Although it has been suggested that the donation, [of the magistrate] in some cases, may be the statue depicted on the coin and not the coin itself, there is a strong possibility that the magistrate also funded the production of the coins.’⁷¹

It is true that some cities struck coins occasionally (or even only once) for the prestige and/or recognition of the city, motivated e.g. by an emperor’s visit,⁷² but in the majority of cases this was done for practical purposes. ‘The fact that civic authorities sometimes asked the emperor’s permission to issue coinage suggests that minting was not thought of as a punishment but as a privilege. In all likelihood, the city would have paid for the establishment of a new mint, the slaves who worked there, and the bronze bullion, even though individual rich benefactors were burdened with part of the cost. The city would have been able to justify this expense, financially speaking, only if the production of bronze currency proved to be profitable.’⁷³ Moreover, Ziegler connects the

⁶⁷ It has often been claimed that from the second century BC onwards the expenses of repairing or erecting public buildings came to be shouldered by the rich elite, whereas in Classical/early-Hellenistic times the state normally paid for public infrastructure. Recent studies, however, have shown that in the Roman East many public buildings continued to be erected at public expense and that many elite benefactors paid for embellishments rather than for entire buildings (e.g. Zuiderhoek 2009, 2013). While I do not want to dispute the validity of this revisionist picture, it remains the case that Roman Greece provides some striking examples of public buildings being erected by wealthy benefactors (e.g. by Herodes Atticus in Athens, Olympia and Delphi, and even in Orikon in Epirus, or by Polycratides at Thespiiai). Other examples of public buildings being repaired or embellished by benefactors include the renovation of public buildings at Sparta by Gaius Julius Eurykles and the rebuilding and embellishment of the Asklepieion at Epidaurus by Sextus Iulius Maior Antoninus Pythodorus.

⁶⁸ Katsari 2011.

⁶⁹ Katsari 2011: 209–210.

⁷⁰ Katsari 2011: 210.

⁷¹ Katsari 2011: 211.

⁷² Katsari 2011: 213; M. Tasaklaci (pers. comm.).

⁷³ Katsari 2011: 214.

City	Julio-Claudian	Flavian	Nerva-Antonine	Severan
Korinthos	•	•	•	•
Sikyon	•			•
Argos			•	•
Epidauros			•	•
Hermion				•
Kleonai				•
Methana				•
Phlious				•
Troizen			•	•
Aigeira				•
Aigion			•	•
Boura				•
Dyme	•			
Patrai	•	•	•	•
Pellene				•
Elis			•	
Heraia				•
Kaphyai				•
Kleitor				•
Kynaitha				•
Mantineia			•	•
Megalopolis				•
Orchomenos				•
Pheneos				•
Phigaleia				•
Psophis				•
Tegea				•
Thelpousa				•
Asine				•
Kolonides				•
Kyparissia				•
Messene	•			•
Mothone				•
Pylos/Koryphasion				•
Thouria				•
Asopos				•
Boia				•
Gytheion				•
Las				•
Sparta	•		•	•
Aigosthena				•
Megara			•	•
Pagai			•	•
Athens			•	•
Aigina				•
Chalkis	•		•	•
Eretria			•	
Karystos	•		•	
Tanagra	•		•	
Thebai		•	•	
Thespiai		•		
Opous	•	•		
Antikyra	•	•	•	•
Delphi			•	
Bouthroton	•			
Nikopolis	•		•	•
Phoinike	•		•	
Korkyra			•	
Zakynthos			•	•

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City	Julio-Claudian	Flavian	Nerva-Antonine	Severan
Demetrias*	•	•	•	•
Larissa**	•	•	•	
Total	16	8	25	48

Figure 12. Cities which minted coins in the Roman period (*= Koinon of the Magnetes; **=Koinon of the Thessalians).

Geographical areas	Cities per area	Cities per area which minted coins	% of cities which minted coins
Epirus and Ionian Isl.	15	5	33%
Peloponnese	62	40	64%
Central Greece	60	14	23%
Thessaly	24	2	8%
Total	161	61	38%
City size	Number of cities	% of cities which minted coins	Coinage span (in dynasties)
1–20 ha	82	20.00%	1 (2)
20–40 ha	17	82%	1–2 (4)
40–80 ha	12	100%	(1) 2–3
80–160 ha	4	100%	2–4 dynasties

Figure 13. Quantitative estimations of the sixty-one cities which minted coins in the Roman period. Numbers in () attest rare cases.

local issues with population fluctuations, arguing that any enlargement of local population would have created an additional demand for issues in the local markets.⁷⁴

From the above it is clear that local coin production was connected with the political, social, demographic and economic aspects of the cities and in the broader sense, with the ‘blossoming’ or not of a given city. It seems thus completely legitimate to examine the coin production of the cities of Achaia in parallel with their size and public buildings. Especially interesting is the involvement of the local rich benefactors with the public buildings as well as the coinage.

Of the 161 cities of the Province of Achaia, 61 (38 %) minted coins during the early Empire (Figures 12–14). Both the absolute figure and the relative score fall short of those which can be calculated for Classical/early-Hellenistic Greece, where 149 (51%) out of 292 cities minted coins.⁷⁵ A large proportion of those cities which struck coins in the Roman period were situated in the Peloponnese or in Epirus. Central Greece and Thessaly present much lower percentages, confirming the overall picture which has emerged from my discussion of city-sizes and public buildings. It should, however, be noted that in Roman Thessaly coins were minted by the *koina* of the Thessalians and the Magnetes, in the cities of Larissa and Demetrias respectively, providing us with an explanation of why only these two cities produced coinage.⁷⁶ Some interesting regional variations can also be observed. While the number of Peloponnesian cities striking coins peaked under the Severan emperors, the cities of central Greece minted coins mainly between the start of the Julio-Claudian period and the end of the Antonine dynasty.

⁷⁴ Ziegler 1996.

⁷⁵ Evidence provided by *CPCI* and Head 1911.

⁷⁶ Of course, various ‘leagues’ (*koina*) are known to have produced collective coins before the Roman conquest, e.g. the collective coinage of the Aitolians.

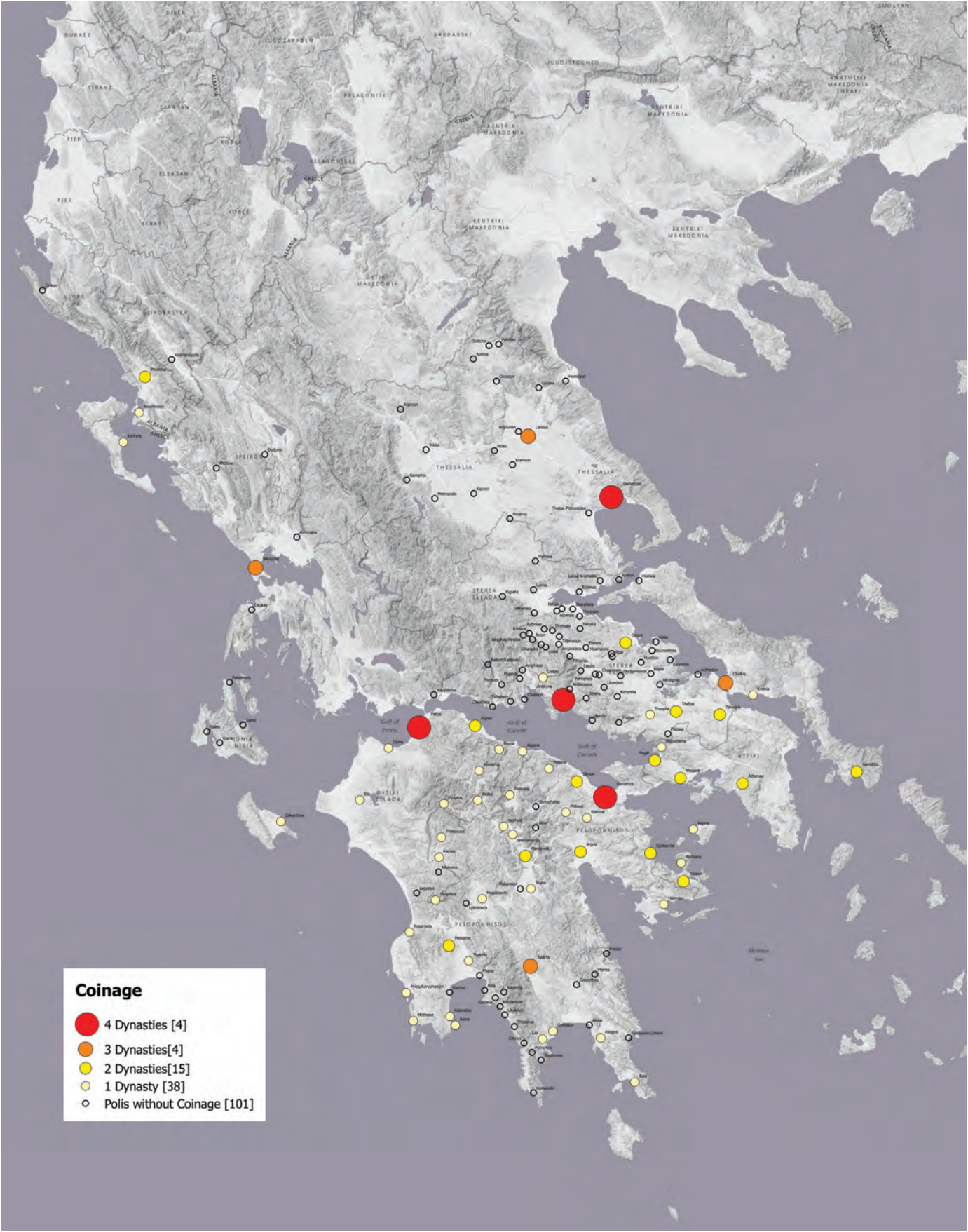


Figure 14. The 61 cities which minted coins during the Roman imperial period.

Regarding the relationship between coinage production and city-sizes it seems significant that only 20% of the small cities (1–20 ha) struck coins in Roman times. Among those cities belonging to the higher size brackets the proportion of cities which produced coins is much higher: 82% of those cities which have been assigned to the 20–40 ha bracket minted coins, while all of those cities which occupied more than 40 ha did so. There is also a correlation between the city-size and the time-spans during which coins were struck. Small cities issued coins during one only dynasty (the only exception being Pagai in Megaris); cities which occupied between 20 ha and 40 ha minted during one or two dynasties; cities belonging to the 40–80 ha bracket usually produced coins during two to three dynasties, while the four biggest centres issued coins during two (Athens), three (Nikopolis), or even four dynasties (Corinth, Patras) (see Figure 13).

It will be clear that the evidence relating to the public buildings of cities and to local coinage production tallies well with the pattern which has been reconstructed using estimates for the size of built-up areas (of varying quality), thereby corroborating these estimates as broadly correct (compare Figures 7, 10, 14). Given the overall convergence of these data sets, it seems methodologically warranted to use the evidence regarding public buildings or coinage to assign a given city a place in the urban hierarchy of Roman Greece, in those cases in which evidence permitting even a very approximate size estimate is completely lacking. Examples include the cities of Korkyra and Same in the Ionian Islands, Metropolis, Lamia and Thebai Phtiotides in Thessaly, Chaironeia and Lebadeia in Boeotia, and Thelpousa and Heraia in Arcadia. In all these cases the dearth of public buildings and the evidence relating to coinage (only Korkyra, Thelpousa and Heraia struck coins) support the conclusion that the areas occupied by these cities were definitely smaller than 40 ha and probably also smaller than 20 ha. The same type of reasoning can be used to gauge the sizes of Gytheion (Laconia) and Antikyra (Boeotia). Although we know nothing about the size of these cities, the evidence of a Roman theatre, aqueduct and public baths in Gytheion, and the fact that Antikyra struck coins during four dynasties indicate thriving communities, apparently related to their role as central ports in Roman times.⁷⁷

Urban hierarchies

Although the evidence regarding city-sizes (even if supported by the data for public buildings and coinage) is far from perfect, it provides us with a good starting point for a reconstruction of the overall shape of the urban system of Roman Greece. In what follows I will distinguish between four tiers in this urban system, corresponding to the four size categories which have been used for the purposes of this study: 1–20 ha, 20–40 ha, 40–80 ha and 80–160 ha. The question as to whether these tiers may be interpreted as an integrated urban hierarchy can however, only be answered by taking a closer look at the tendencies of this distribution.

One way of looking at the overall shape of the urban system of Roman Greece is by focusing on inter-city distances between cities belonging to a particular size-bracket. If we ignore geomorphological features, such as mountain ranges and other natural obstacles, the four largest urban centres in the area under discussion (Nikopolis, Patras, Corinth and Athens) are separated from each other by distances ranging from 70 to 130 km. Within this group, inter-city distances gradually increase as we move away from Attica and Corinthia: while the distance between Athens and Corinth is c. 70 km, that between Corinth and Patras is c. 110 km, while Patras and Nikopolis are separated by approximately 125 km. It seems worth checking whether this regularity continues as we move farther north.

⁷⁷ Before the imperial period Gytheion was the naval base of the Spartans (Strabo 8.5.2; Paus. 1.27.5), but under Augustus it became the capital of the Eleuthero-Lakonians (see above). It appears from Plutarch (*Antony* 68.4–5) that Antikyra was used as one of the central ports of Boeotia during the civil wars.

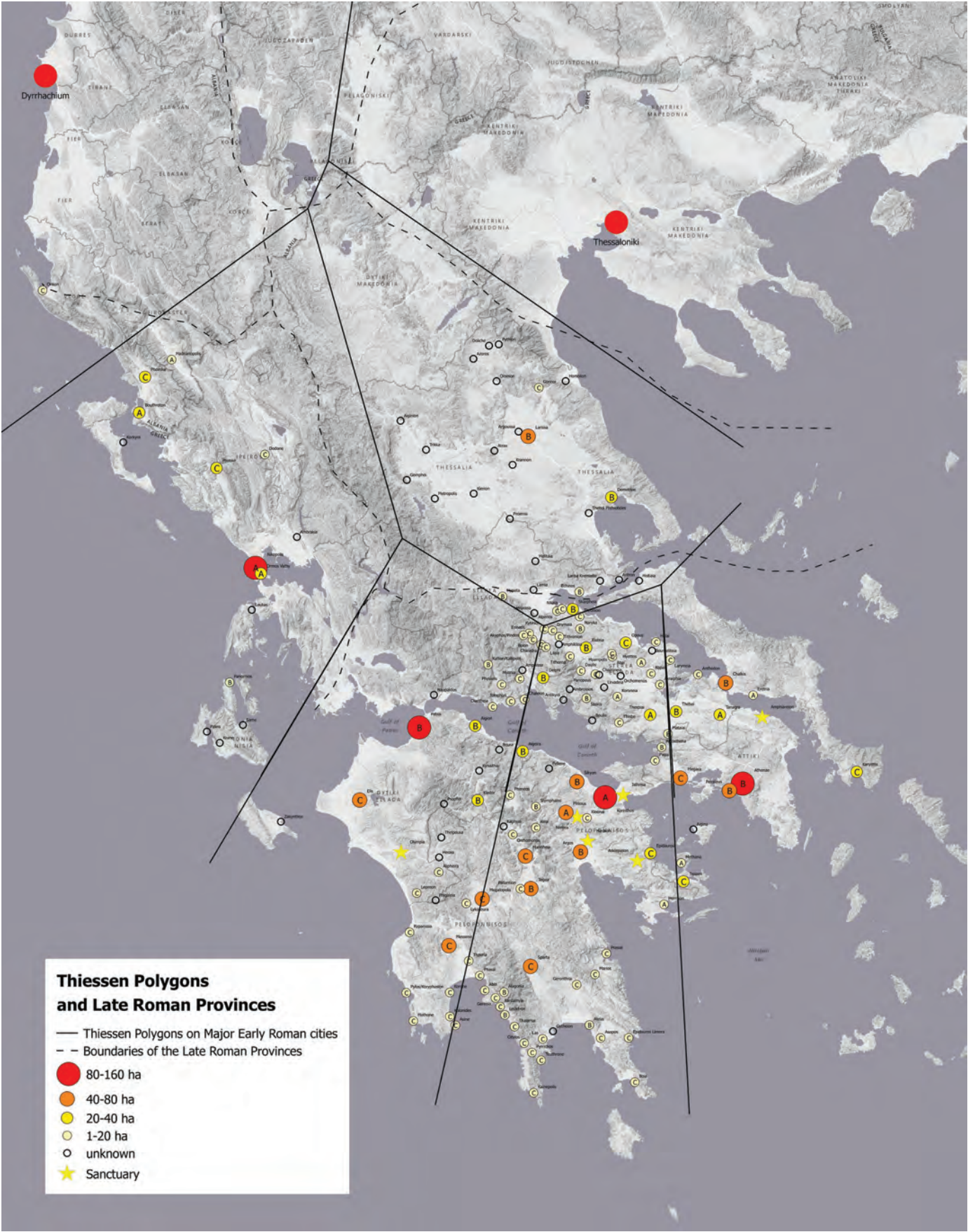


Figure 15. Thiessen polygons applied in the major urban centres of early Roman Greece, against the boundaries of the late Roman Provinces (after Synekdemosis of Hierocles).

In northern Greece Thessaloniki certainly occupied more than 80 ha, and the same was probably true of Dyrrachion for which estimates ranging from 60 ha to 95 ha have been offered.⁷⁸ If we include these two cities in our analysis, we find that the cities of Nikopolis, Dyrrachion, and Thessaloniki are separated from each other by distances of c. 300 km, more than twice the distance which separates Patras from Nikopolis. In other words, inter-city distances between the largest cities of the southern Balkans seem to have risen with increasing distance from the highly urbanised area of ‘old Greece’.

If we draw the Thiessen polygons for the aforementioned cities (including Larissa, the regional capital of the *koinon* of the Thessalians which may have belonged to the higher end of the 40–80 ha category to which I have assigned the city), the result is the pattern shown in Figure 15. A very intriguing feature of this visual representation is that if the boundaries between the polygons for Patras and Corinth and those which separate Corinth from Athens are ignored, the lines on our map more or less coincide with the boundaries of the late-Roman provinces. To put it differently, the historically attested boundaries of the provinces of late-Roman Greece seem to ‘obey’ the notional barriers indicated by a theoretical exercise in which the boundaries between geographical units are placed exactly half-way between cities belonging to the same size bracket. It is difficult to avoid the conclusion that inter-city distances between the largest regional centres of Roman Greece, affected administrative decisions when the boundaries of the late-Roman provinces were drawn.

Further regularities become apparent if we shift the focus of our attention to the second-to-fourth tiers of the urban system. If the two groups of medium-sized cities, in other words all cities belonging to the 40–80 ha and 20–40 ha brackets, are combined into one category, we find that these cities tend to be separated from each other by distances ranging from 20 km to 50 km. Finally, distances separating cities belonging to our fourth tier (1–20 ha) from each other do not exceed 20 km (Figure 16).

Size	Inter-city distance (km)
1–20 ha	<20
20–40, 40–80 ha	20–50 (15–60)
80–160 ha	>70
Roman foundations (Dyrrhachion, Byllis, Bouthroton, Photike, Nikopolis, Patras, Corinth)	50–130
Province Capitals (Corinth, Nikopolis, Thessaloniki)	200–300

Figure 16. Inter-city distances of the cities of Greece. Numbers in () indicate rare cases.

This triple categorisation based on size and inter-city distance recalls the distinction between ‘giant *poleis*’, ‘great *poleis*’ and ‘normal *poleis*’ which some scholars have used as a tool for analysing the cities of Classical Greece.⁷⁹ While this parallel certainly is suggestive, we must keep in mind that the distances which separated medium-sized or large cities from other cities belonging to the same size-brackets did not correspond to boundaries between the territories of self-governing ‘states’, for the obvious reason that the large gaps which existed between the large or medium-sized cities of Roman Greece contained many other self-governing cities. At the same time there are strong indications that, at least in the long run, the unification of Greece under Roman rule resulted in a partial dissolution of those boundaries which had separated the *poleis* of Classical Greece.⁸⁰ Viewed in this light it does not seem far-fetched to interpret the distinction between three tiers of cities as reflecting the existence of a differentiated settlement system in which cities belonging to the highest size brackets tended to perform a wider range of administrative, economic and cultural functions than small cities or secondary settlements.

⁷⁸ D. Donev (pers. comm.).

⁷⁹ cf. Bintliff 1994, 2002.

⁸⁰ Alcock 1993.

The settlement systems of the north-western provinces of the Roman empire provide an interesting parallel for the existence of the multi-layered system which seems to have existed in Roman Greece. In a publication which appeared almost thirty years ago Bekker-Nielsen⁸¹ suggested a typology for the cities of the north-western provinces in which he distinguished between five recurrent types of cities and urban systems, based on the reasons for their foundation, their role in the landscape and the inter-city distances typical for each category of cities (Figure 17). Towns of type A, which Bekker-Nielsen calls ‘primitive’, derived their livelihoods from the ‘agricultural’ exploitation of their territories, meaning that a large proportion of the urban territory was farmed by people who lived in the city; inter-city distances between such cities were typically between 11 and 16 km. ‘Colonial’ cities (type B), which tended to be separated from each other by distances ranging between 21 and 37 km, were also sustained by the ‘agricultural’ exploitation of their territories. As we move upwards towards the highest levels of the urban hierarchy, however, we begin to find larger cities, such as tribal towns or *civitas* capitals (types C-E) exercising ‘fiscal’ domination over large territories; distances between cities fitting this description tended to exceed 50 km.

Type	Description	Average Intercentre distance (km)	Type of exploitation
A	primitive	11–16 km	agricultural
B	colonial	21–37 km	agricultural
C	<i>civitas</i>	50–75	fiscal
D	<i>civitas</i>	>90 km	fiscal
E	marginal	>90 km	fiscal

Figure 17. Bekker-Nielsen’s (1989) typology of the cities of the Western Provinces of the Roman Empire.

Applying Bekker-Nielsen’s distinctions to the cities of Classical Greece, Bintliff⁸² has identified his first two types with the ‘normal *polis*’ and the ‘great *polis*’ of Greek urban history respectively. If we compare Bekker-Nielsen’s city-types with the results of our enquiries into the urban system of Roman Greece, we also find many similarities. Bekker-Nielsen’s type A (primitive), sustained by (direct) agricultural exploitation and typically situated within less than 16 km from its nearest neighbours may be identified with our ‘small cities’ (1–20 ha) which were typically separated from each other by distances of less than 20 km. Type B (colonial), which is agricultural in character but separated from its nearest neighbours by distances ranging from 21 to 37 km may be compared to our ‘medium-sized cities’ which tended to be separated from similarly sized cities by distances of between 20 km and 50 km. Finally, Bekker-Nielsen’s last three categories, sustained by fiscal exploitation and separated from each other by distances exceeding 90 km may be compared with the four large cities of southern Greece, which were separated by distances ranging from 70 km to 130 km. Even if we abandon the size criterion, Bekker-Nielsen’s model seems broadly applicable to the urban landscapes of Roman Greece: while the colonial cities founded during the Roman period (Dyrrhachion, Byllis, Bouthroton, Photike, Nikopolis, Patras and Corinth) are separated by distances ranging between 50 km and 130 km, the three provincial capitals of Roman Greece (Corinth, Nikopolis and Thessaloniki) are separated by distances of between 200 km and 300 km.

Bekker-Nielsen goes on to observe in the heartlands of Greek colonial, Etruscan and Roman civilisation in Italy that type A towns were the most common type of city. In the rest of Italy and in southern Gaul, Roman colonisation and the transformation of native urban agglomerations produced many cities corresponding to type B, while in the rest of Gaul and in Germany cities belonging to his last three categories were the common types. Since Greece was a highly urbanised area long before the Roman conquest, its urban system was characterised by the presence of large numbers of small and medium-sized cities, which would correspond to the first two types of Bekker-Nielsen’s typology in terms of size, function and inter-city distances.

⁸¹ Bekker-Nielsen 1989.

⁸² Bintliff 2002: 239–240.

An important question which remains to be answered is to what extent the Roman conquest of Greece resulted in the small and medium-sized cities of this part of the empire becoming integrated into a hierarchical urban system dominated by Rome.⁸³ The basic fact that the urban system of Roman Greece, at least from a strictly numerical point of view, continued to be dominated by small and medium-sized cities, already implies an answer to this question, but a clearer picture can be obtained by applying rank-size analysis.

Since good discussions of the technical aspects of rank-size analysis, and of the possibilities and limitations of this well-established technique can be found in countless publications,⁸⁴ I will do no more than signal a few points which are directly relevant to the purposes of this article. One of the most interesting insights which has emerged from research into the urban systems of historical and contemporary societies is that when the cities of a well-integrated urban system are plotted in a log-log graph showing the relationship between city rank and city size, the result approximates a straight line with a slope of minus 1. Non-primate ‘convex’ distributions characterised by the existence of a large number of medium-sized centres are interpreted (*contra* Hanson)⁸⁵ as ‘heterarchical’ systems characterised by a low level of economic integration or, in the case of peripheral regions, as regional segments of a much larger system dominated by a primate city (located outside the borders of the region under investigation).⁸⁶

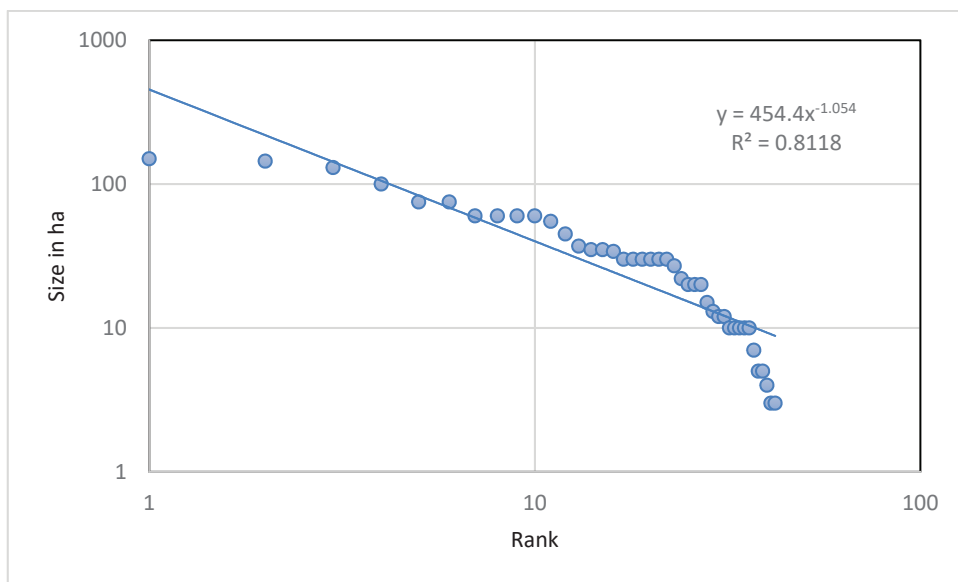


Figure 18. Log-log graph for the cities of central and southern Greece in the Roman period (safe and uncertain size estimates); N = 42.

If the 42 cities of Roman Greece whose size can be estimated with a reasonable degree of confidence (Figures 4–5) are plotted in a log-log graph, we obtain the graph shown in Figure 18. The pattern is clearly of the convex type, with the left part of the graph suggesting that the sizes of the two biggest cities (Nikopolis and Corinth) fell short of those which one would expect to find in a fully integrated urban system, let alone in a system dominated by a few primate centres. The bulge in the central segment of the graph indicates that medium-sized cities were more numerous than would be expected in a well-integrated settlement system. The right-hand part of the graph declines very steeply, suggesting a shortage of small cities. This feature of the graph might, however, reflect

⁸³ As suggested by Woolf 1997: 4–8.

⁸⁴ For an informative introduction to Rank-size analysis see De Ligt 2016: 28–35.

⁸⁵ Hanson 2016: 95.

⁸⁶ De Ligt 2016: 28–35.

the biased nature of the published evidence, which tends to come from medium-sized and large cities. The graph as a whole looks very different from the best-fitting trend line, rendering the slope of this trend line (which happens to be approximately -1) meaningless. In short, instead of pointing to the existence of a highly hierarchical urban system, rank-size analysis of the cities of Roman Greece suggests we are dealing with an urban system made up of a handful of similarly-sized regional *metropoleis* and a much higher number of much smaller cities which also tended to be of similar size.

There is no need to explain that the small size of the sample which has been subjected to analysis makes it impossible to draw irrefutable conclusions. In theory the data set used might have been broadened by taking my imprecise guesstimates for the missing cities into consideration (cf. Figure 7), but given the low quality of the latter data there are good reasons to think that including them would have produced a worse rather than a better result.

So what does the rank-size graph tell us about the relationship between the shape of the urban system of early Roman Greece and the underlying economic structures which sustained the cities of this region? In my view, a good way of approaching this problem is to take a brief look at De Ligt's analysis of the urban system of early Imperial North Italy, which presents many similarities with Roman Greece.⁸⁷ Like my analysis of the cities of early-imperial Greece, De Ligt's rank-size analysis of the North Italian cities resulted in a convex distribution characterised by a dearth of large cities. The explanation which De Ligt gives for this result is that the urban system of North Italy had been set up as a 'modular system' consisting of a large number of city-plus-territory 'modules' which were sustained mainly by surpluses produced in their own territories. In other words, while some North-Italian cities were relatively large compared to their neighbours, none of them seems to have outgrown the carrying capacity of their immediate hinterlands. According to De Ligt, the main reason why this system persisted during the late-Republic and early-Empire was because the establishment of fixed administrative boundaries made it impossible for cities to expand at the expense of other cities: 'As long as the central Roman authorities recognised the right of each city-plus-country unit to exist as an autonomous political entity, it was impossible for any northern city to expand its resource base in a non-peaceful way. In brief, precisely because the urban system of early-Augustan system had been set up as a modular system composed of numerous autonomous units, it offered limited scope for the concentration of resources and people in a handful of large cities dominating the entire regional urban system'.⁸⁸

De Ligt's argumentation for the cities of North Italy seems to apply perfectly to Greece. The urban system of Roman Greece had developed from the system of the Classical/early-Hellenistic period, which had been thoroughly 'modular', and there can be no doubt that this basic feature persisted in Roman times - despite the diverging fates of individual cities and the general thinning out of the urban system. After the unification of Roman Greece under the Roman empire, (southern) Greece still contained more than one hundred self-governing *poleis* which were sustained mainly by surpluses produced in their territories. Although all kinds of goods, including food items, were produced for local or regional markets, very few cities had access to a steady supply of large amounts of imported grain which would have allowed them to overcome the territorial constraints of their autonomous neighbours. It is very characteristic that the creation of Nikopolis and the fast expansion of Patras, which were the only two new big 'players' in the urban system of Roman Greece was based on a radical territorial restructuring involving the handing over of the territories previously controlled by dozens of other cities in Aitolia and Akarnania. Apparently this was the only way to sustain these two (new) big cities.

⁸⁷ De Ligt 2016.

⁸⁸ De Ligt 2016: 41.

Concluding remarks

One of the conclusions which emerges from my investigations is that the number of self-governing *poleis* in Roman Greece was much smaller than it has been in Classical-Hellenistic times. In this study I have counted 40 cities which were abandoned between the Classical period and the mid-2nd century AD. In addition to this, 70 cities, most of them small, can be shown to have been absorbed by larger neighbours.

It has also been demonstrated that, with very few exceptions, most of those cities which survived were smaller than their predecessors or at best of equal size. Since the few Roman foundations (or the enlargement of some pre-existing settlements) did not compensate for these losses, we cannot avoid the conclusion that Roman Greece as a whole was less urbanised than it had been in Classical and early-Hellenistic times. If this finding is combined with the dramatic drop in rural site numbers which is known to have taken place during the early Roman period,⁸⁹ it seems reasonable to conclude that the landscape of early-Roman Greece was less populated. In short, the overall picture of urban history and demographic developments in early-Roman Greece which has emerged in this paper is very different from that of Alcock⁹⁰ (who claimed that the decline in rural site numbers and the disappearance or shrinkage of many smaller cities of early Roman Greece need not indicate population decline, but can be accounted for as reflecting to two types of population movement: from rural areas to cities and from shrinking towns to larger urban centres).

Regarding city-sizes it has been argued in this paper that none of the (southern) Greek cities of Roman times was larger than 150 ha. While the four largest urban centres of southern Greece seem to have belonged to the 100–150 ha bracket, none of the ‘large cities’ occupied more than 80 ha. The vast majority of cities appear to have been medium-sized or small (i.e. smaller than 40 ha). In order to put my size estimates for the largest cities of Roman Greece into perspective, a comparison with early-imperial Italy is again illuminating. While Capua, the second-largest city of peninsular Italy, occupied an area of about 180 ha, estimates for the built-up area of Puteoli, the third-largest city, range from 100 ha to 120 ha. By the mid-2nd century AD, Ostia occupied an area of approximately 180 ha, but the city wall of the first century BC enclosed an area of only 69 ha which was not entirely filled with buildings at the start of the Principate. Pompeii was 66 ha in size.⁹¹ If major Italian cities like Capua or Puteoli occupied areas of between 100 ha and 180 ha, my estimates for the four largest cities of southern Greece might actually be on the optimistic side.⁹²

The evidence regarding civic coinage and the public buildings of cities helps us to obtain a much clearer picture of conditions prevailing in the cities of Roman Greece. Not only do these data provide much-needed corroborating of city-size estimates based on extensive surveys or evidence collected during rescue excavations, but they also support the conclusion that the vast majority of Greek cities did not flourish in Roman times. In the Roman period only those large cities whose populations included a large number of wealthy land-owners (or Roman administrators) received a considerable number of new public buildings and managed to keep those which already existed in good repair.

While the inquiries undertaken in this paper offer a basis for a re-assessment of the urban history of Roman Greece as a whole, they also illuminate some intriguing regional divergences. For most of

⁸⁹ See Alcock 1993: 37–48.

⁹⁰ Alcock 1993.

⁹¹ De Ligt 2016: 24, 43–44.

⁹² Actually these upper tiers should not be far also from the Classical-Hellenistic reality, with the difference though, that during the Classical and early-Hellenistic period large cities occupying 80+ ha appear to have been more numerous than they were during the early Roman Empire. Classical Athens, for example, occupied c. 150 ha (but twice that area if we add the Peiraieus). Another Classical giant, Thebes, occupied c. 130 ha, while the c. 209 ha enclosed by the city wall of Hellenistic Sparta included many empty spaces, as the walls (constructed in the late 3rd century BC) encircled all the four *komai* which constituted the city. Classical Messene had c. 100 ha occupied area.

the Peloponnese and for central Greece and Thessaly the prevailing picture is one of very limited Roman intervention and also one of urban decline, with only colonial Corinth re-appearing as a major city. Outside Corinthia we encounter many shrinking cities, towns absorbed by their larger neighbours or even abandoned. Only in Laconia do we find a considerable number of new 'cities', but as we have seen, almost all of these remained indistinguishable from 'villages' in terms of population size and architectural appearance.

Unlike large parts of southern and eastern Greece, where the urban system of Roman times remained relatively close to that which had existed during the Classical/early-Hellenistic period, the western regions experienced a radical transformation of their urban systems, partly due to disruption by warfare, but also in response to the emergence of Italy as the new core zone of the Mediterranean. The most dramatic example is the total disappearance of large numbers of Aitolian and Akarnanian cities whose territories were handed over to Nikopolis and Patras.

Further regional contrasts are visible between the Peloponnese and the rest of our area. In the Peloponnese the urban system of the Classical/early-Hellenistic period was preserved to a larger extent than in most other parts of Roman Greece, apparently due to the fact that the Peloponnese had suffered much less disruption during the wars of the last two centuries BC than central Greece, Epirus and Thessaly. This difference has been also detected in the evidence regarding civic coinage and the public buildings of cities, with the Peloponnese and Epirus showing much higher scores than central Greece and Thessaly. The high number of newly erected public buildings in Epirus should, however, be interpreted as reflecting the fact that more than half of the Epirote cities of Classical and early-Hellenistic times had disappeared, leaving the region with only eight cities. Four of these cities were new Roman foundations where a considerable number of new public buildings were erected.

Although the Roman conquest resulted in a drastic reconfiguration of the urban systems of various sub-regions, Greece as a whole maintained the modular urban system which it had inherited from the Classical and early-Hellenistic periods. Its cities continued to be sustained by basic foodstuffs produced in their territories, and production was mostly for local consumption. This applies even to the largest urban centres. While a clear tendency towards the emergence of a more hierarchical urban system can be observed in Roman times, rank-size analysis did not reveal the existence of a well-integrated urban system. Instead we find a bi-polar system containing a handful of similarly-sized regional *megapoleis* and a much larger number of similarly-sized local centres.

The basic modules of this urban system took the form of agricultural towns, or secondary settlements, which were situated within 15 or 20 km of similar local centres, enabling these agglomerations to cater to the marketing needs of the rural population. Larger cities fulfilling a wider range of administrative, economic and cultural functions were separated by much larger distances, with inter-city distances being largest in the case of the four regional *megapoleis*. Interestingly, the approximate boundaries of the regions impacted by these large cities seem to have influenced the sub-division of Roman Greece into smaller provinces, a development which started in the 2nd century but was not completed until late-Roman times.

Appendix

The following register provides the sources on which this article was based. As already mentioned, on no account can these sources be understood as exhaustive, in relation to the cities and settlements examined in this study. They are selected sources which provide provisional answers to the specific questions which were central to this research. The sites are catalogued in geographical order, following the order of the regional survey in the main text. The regional borders follow the divisions used in the *CPCI*. At the beginning of every site, basic references attesting the status of the given site in pre-R and R imperial times are provided. Then follows the evidence for the physical size of the cities, and the site is concluded with the data/sources regarding the material attributes and coinage. Discussions are limited to special (and important) cases.

CORINTHIA

Classical-Hellenistic *poleis* operative in Roman times

Korinthos: R colony and Provincial capital (Larsen 1938: 446; Romano 2000, 2003); the Caesarean centuriation suggests a city-size of c. 240 ha, while the second Flavian one indicates a reduction by 40% (c. 144 ha) (Romano 2000 and 2003). Size of pre-R city unknown (*CPCI* no. 227). However, if we accept that most of the area enclosed by the Long Walls (200 ha) consisted of open fields (Bintliff 2012: 323), and if the acropolis and its steep slopes are deducted from the 500 ha enclosed by the city walls, we arrive at the conclusion that the c. 240 ha used by the Caesarean plan of the re-founded city must be regarded as a maximum threshold for the built-up area of any period. This guesstimate was positively received by D. Romano and F. Lang (pers. comm.); R interventions in theatre, R *agora*, amphitheatre, *odeion*, circus, aqueduct and public baths (Scranton 1951; Stillwell 1952: 131–141; Wiseman 1979: 513, 515–516, 527–528; Nielsen 1993: 33 C.261; Biers 2003; Lolos 1997, 2010; Romano 2005; Di Napoli 2013: 41–47); Julio-Claudian, Flavian, Nerva-Antonine and Severan coinage (*RPC* I: lots 1116–1237; II: lots 101–218; III: lots 111–259; IV online; *BCD Corinth*); **Sikyön:** (*CPCI* no. 228; Paus. 2.7.1, 9.6); pre-R walled area c. 170 ha; built-up area c. 70–80 ha for H and R times (Y. Lolos pers. comm.); R interventions in *agora* and theatre, R aqueduct and public baths (Paus. 2.9.6; Orlandos 1935: 73–83; Lolos 1997: 308–309; Lolos 2011b: 279–282, 571–584; Di Napoli 2013: 48–49); Julio-Claudian and Severan coinage (*RPC* I: lots 1238–1244; *BCD Peloponnesos*: lots 354–373; Touratsoglou 2010: 242–248).

Classical-Hellenistic secondary settlements (and sanctuaries) operative in Roman times

Isthmia: (Paus. 2.1.7–9); R interventions in theatre, R public baths (Nielsen 1993: 33 C.268; Di Napoli 2013: 49–50); **Kenchreai:** (Strabo 8.6.22; Paus. 2.2.3); **Lechaion:** (Strabo 8.6.22; Paus. 2.2.3.); **Tenea:** (Strabo 8.6.22; Paus. 2.5.4; *CPCI* p. 462; Giannakopoulos and Kissas 2013: 77, 83); **Titane:** (Paus. 2.11.5; Lolos 2011: 389–398).

ARGOLIS

Classical-Hellenistic *poleis* operative in Roman times

Argos: (*CPCI* no. 347; Piérart 2010: 24–29); Piérart (*CPCI* no. 347) suggests c. 200 ha for pre-R walled area; recent publications suggest max. 150 ha (Piteros 2013: 349 fig. 4; Marchetti 2013: 332 fig. 3). City-size c. 80–100 in pre-R times, shrinking to c. 55 ha in R period (Piérart 2003: 57 fig. 5; Marchetti 2013: 330–332 figs. 1–3; Banaka-Dimaki *et al.* 1998); R interventions in *agora* and theatre, R *odeion*, aqueduct and public baths; mention of *stadion* (Paus. 2.20.7, 2.24.2; Nielsen 1993: 32 C.252; Lolos 1997: 306; Pariente *et al.* 1998; Banaka-Dimaki *et al.* 1998: 327–328; Piérart 2010: 23, 33; Di Napoli 2013: 51–55); Nerva-Antonine and Severan coinage (Head 1911: 440; *RPC* III: lots 338–393; IV online; *BCD Peloponnesos*: lots 1184–1221; Touratsoglou 2010: 242–249); **Epidauros:** in R *civitas foederata* (*CPCI* no. 348; Paus. 2.29.1; Larsen 1938: 446); like Elis, a bicentral city comprising town and sanctuary; Pausanias focused on Asklepieion; the walls in the promontory are mainly late Roman and medieval, but they probably follow the pre-R fortifications; they enclose an area of c. 15 ha (*CPCI* no. 348); extra-mural urban quarters on the neck of the promontory; we can guesstimate a city-size c. 20–40 ha for both pre-R and R times (cf. Papachatzis 1976: 217–219); R interventions in theatre, R aqueduct and public baths (*IG* IV, 875; Kritzas 1972: 186–188; Nielsen 1993: 33 C.267; Di Napoli 2013: 55–57); Nerva-Antonine and Severan coinage (Head 1911: 442; *RPC* III: lots 394–399; IV online; *BCD Peloponnesos*: lots 1271–1276; Touratsoglou 2010: 245–248); **Hermion:** (*CPCI* no. 350; *IG* IV, 701–711; Paus. 2.34.11); pre-R walled area c. 22.5 ha, of which 17 ha built up, shrinking to 12 ha in R times (Jameson *et al.* 1994: 551 table B.3, 550, 586); R aqueduct (Lolos 1997: 307); Pausanias mentions foundations of a (no longer used) *stadion* (2.34.10); Severan coinage (Head 1911: 442; *BCD Peloponnesos*: lots 1306–1308; Touratsoglou 2010: 245–248); **Kleonai:** in

late 4th c. BC dependent on Argos but independent from late 3rd c. BC onwards (CPCI no. 351; Strabo 8.6.19; Paus. 2.15.1; IG IV, 490; Marchand 2011); pre-R walled area c. 35 ha (University of Trier Website, Department of Classical archeology, Kleonai archaeological project under the direction of Prof. Dr. Torsten Mattern, viewed 15 December 2017 <<http://www.uni-trier.de/index.php?id=32713>>); older publications suggested 25 ha (Sakellariou and Faraklas 1971: 127); we can assume a pre-R built-up area of c. 20–30 ha, and perhaps < 20 ha for R period, based on Pausanias who describes Kleonai as a small city; Severan coinage (Head 1911: 440–441; BCD *Peloponnesos*: lots 1326–1329; Touratsoglou 2010: 245–248); **Methana**: (CPCI no. 352; IG IV, 853, 857; Paus. 2.34.1; Bowden and Gill 1997: 78); pre-R size 8 ha; R size 5 ha (Gill *et al.* 1997: 63 table 6.1, MS10 and 70 table 6.2, MS10; Mee *et al.* 1997: MS10; Bowden and Gill 1997: 78 table 7.1, MS10); mention of *agora* (Paus. 2.34.1); Severan coinage (Head 1911: 442; BCD *Peloponnesos*: lot 1332; Touratsoglou 2010: 245–248); **Phlious**: (CPCI no. 355; IG IV, 442; Paus. 2.12.3); city size between 40 and 80 ha; according to Alcock the city grew in R times, but she provides no size estimates, and her maps suggest more intensive use of space rather than growth (Alcock 1991: 441 fig. 8, 447 fig. 10, 454 fig. 17, 461–462; Alcock 1993: 98–100 figs. 30–31); analysis of well-dated sherds suggests that the city peaked in H times, then declined in early R and even further in late R times (Bintliff 2012: 315); R interventions in *agora* and theatre (Paus. 2.13.5–6; Papachatzis 1976: 119 n. 2; Lolos 2011: 29–30; Di Napoli 2013: 49); Severan coinage (Head 1911: 409; BCD *Peloponnesos*: lots 149–153; Touratsoglou 2010: 245–248); **Troizen**: in *R civitas foederata* (CPCI no. 357; IG IV, 758, 791; Larsen 1938: 446; Zoumbaki 2003: 160, 162); pre-R walled area c. 50–55 ha (Konsolaki-Giannopoulou 2003: 137 fig.1; Papachatzis 1976: 242 fig. 277; Vitti 2010: 269 fig.1); taking into account empty spaces within walled area, we can assume a city size of c. 20–40 ha for both pre-R and R times (R monumental burials outside the walls, see Vitti 2010); mention of *agora*, theatre and *stadion*, without archaeological evidence (Paus. 2.31, 2.31.4, 2.32.3; IG IV, 782, 791; Zoumbaki 2003: 160); Nerva-Antonine and Severan coinage (RPC IV online; BCD *Peloponnesos*: lots 1340–1345; Touratsoglou 2010: 243–248).

Classical-Hellenistic *poleis* degraded or abandoned in Roman times

Halieis: abandoned in R times (CPCI no. 349; Paus. 2.36.1; Jameson *et al.* 1994: 435–437); walled area 18 ha; C size c. 15 ha; in the late 4th c. BC the built-up area not larger than 8.5 ha (CPCI no. 349; Jameson *et al.* 1994: 551); **Kalaureia**: subordinate to Troizen till late 4th c. BC; independent *polis* after the death of Alexander the Great (CPCI no. 360 and 615; IG IV, 848); in R times again subordinate to Troizen; not mentioned among the *oppida* of Saronic Gulf by Pliny; Strabo (8.6.3) mentions it as an island and Pausanias (2.33) as an island of Troizenia; **Orneai**: (CPCI no. 354; Pikoulas 1995: 267–270); Strabo (8.6.17) initially characterizes Orneai as *kome* but then (8.6.24) as deserted. Pausanias (2.25.6) describes two temples, suggesting that the site was somehow active; he uses the term *polis* but in past tense. No mention of R finds by Pritchett (1980: 19–27).

Classical-Hellenistic secondary settlements (and sanctuaries) operative in Roman times

Asine (CPCI p. 600; Paus. 2.36.4; Papachatzis 1976: 284–285; Styrenius 1998); **Asklepieion (of Epidauros)** (Melfi 2010); R interventions in theatre, R *odeion*, aqueduct and public baths; mention of *stadion* (Paus. 2.27.5; Lolos 1997: 306; Lambrinoudakis 1999: 53, 73; Katakis 2002: 300–301, 305, 311; Aslanidis 2003; Melfi 2007: 99, 101–106; Melfi 2010: 334–345; Di Napoli 2013: 57–61); **Eileoi** (CPCI p. 600; Paus. 2.34.6); **Elaious** (CPCI p. 600; Pritchett 1991: 173); **Genesion** (CPCI p. 600; Paus. 2.38.4); **Heraion (of Argos)** (Paus. 2.17); R public baths (Waldstein 1902: 134–136; Papachatzis 1976: 144); **Kenchreai**: (CPCI p. 601; Strabo 8.6.17; Paus. 2.24.7; Pritchett 1980: 54–64); **Lerna**: (CPCI p. 601; Strabo 8.6.2; Paus. 2.36.6–7); **Lessa**: (CPCI p. 601; Paus. 2.25.10); **Lyrkeia**: (CPCI p. 601; Strabo 8.6.17; Paus. 2.25.4–5); **Mases**: (CPCI p. 601; Paus. 2.36.1–3); **Mykenai**: Pausanias 2.16.5–6 (like Strabo 8.6.19) says that Mykenai was in ruins in his days. This is not true: the site was a *kome* of Argos not only in H but also in R times (CPCI p. 599; IG IV, 498.2; Papachatzis 1976: 130 fig. 122, 132–134; Pritchett 1980: 239 fig.11); **Mysia**: (CPCI p. 601; Paus. 2.18.3); **Nemea**: (Paus. 2.15.2–3; Miller 2011: 50–53; Miller 2005: 66–76, 95–111; Papachatzis 1976: 123–128); **Temenion**: (CPCI no. 601; Strabo 8.6.2; Paus. 2.38.1).

Classical-Hellenistic secondary settlements abandoned, possibly abandoned or with no evidence in Roman times

Hysiai: (CPCI p. 601; Strabo 8.6.17; Paus. 2.24.7); **Midea**: (CPCI p. 601; Paus. 2.25.9); **Nauplia**: (CPCI p. 601; Strabo 8.6.2; Paus. 2.38.2–3); **Philanorion**: (CPCI p. 601; Paus. 2.36.3).

ACHAIA

Classical-Hellenistic *poleis* operative in Roman times

Aigeira: (CPCI no. 230; Paus. 7.26.1; Rizakis 2008: 240 (nos. 174, 175), 241 (no.176)); to judge from the evidence currently available the fortified area of the H wall occupies c. 50 ha; some architectural structures of C-H and R date were built in close distance to the fortification wall (W. Gauß pers. comm.); taking into account the empty spaces we can assume a city size of c. 20–40 ha for the pre-R and R city; R interventions in theatre (Di Napoli 2013: 38–39); Severan coinage (BCD *Peloponnesos*: lots 414–422; Touratsoglou 2010: 245); **Aigion:** (CPCI no. 231; Paus. 7.23.5; Rizakis 2008: 188–190, 193 (nos. 128–130, 133)); pre-R walled area c. 45 ha; city size for pre-R and R city c. 20–40 ha (based on Papakosta 1991: 237–238; Rizakis 2008: 158 fig. 19); R interventions in theatre, R public baths, mention of *agora*, uncertain R aqueduct (Paus. 7.24.1; Papakosta 1991: 238–239; Rizakis 2008: 193, 206 (nos. 133, 153); Di Napoli 2013: 37–38); Nerva-Antonine and Severan coinage (RPC IV online; BCD *Peloponnesos*: lots 441–463; Touratsoglou 2010: 243, 246); **Boura:** (CPCI no. 233; Polyb. 2.41.8; Strabo 8.7.4; Paus. 7.25.8); Severan coinage (BCD *Peloponnesos*: lots 464–470; Touratsoglou 2010: 245); **Patrai:** R colony (CPCI no. 239; Rizakis 1998: 22–35; Rizakis and Petropoulos 2006); pre-R size c. 40 ha; R size c. 100 ha (based on Petropoulos 2009: 69, 73 pl. 16; Rizakis 1998: 42–49; Papapostolou 1991); R *agora*, *odeion*, *stadion*, aqueduct and public baths (Papapostolou 1991: 311; Lolos 1997: 308; Rizakis and Petropoulos 2006: 37, 39, 46; Petropoulos 2009: 48, 58–61, 70–71; Rizakis 2010b: 141–142; Di Napoli 2013: 36–37); Julio-Claudian, Flavian, Nerva-Antonine and Severan coinage (RPC I: lots 1245–1282; II: lots 219–262; III: lots 271–294; IV online; BCD *Peloponnesos*: lots 539–578); **Pellene:** (CPCI no. 240; Rizakis 2008: 265–266 nos. 192–193; Paus. 7.27.1); mention of *agora* (Paus. 7.27.4), uncertain aqueduct (Lolos 1997: 308); Severan coinage (BCD *Peloponnesos*: lots 607–618; Touratsoglou 2010: 245).

Classical-Hellenistic *poleis* degraded or abandoned in Roman times

Aigai: probably abandoned c. 370 BC, but still existing in diminished form till early 3rd c. BC; omitted from Polybios' list of Achaean cities (2.41.8) (CPCI no. 229; Strabo 8.7.5; Paus. 7.25.12; Rizakis 2008: 222); pre-R size c. 5 ha (Rizakis 1995: 214); **Dyme:** Caesarean colony; from 1st c. AD onwards (probably under Nero) a *kome* in territory of Patras; from 2nd c. AD onwards clearly in decay (CPCI no. 234; Paus. 7.17.6, 8; Rizakis 1997: 21; Rizakis 2008: 31); city size (before its dependency to Patras) c. 75 ha (based on Rizakis 2008: 26 fig. 13); coins minted under Tiberius (RPC I: lots 1283–1289; BCD *Peloponnesos*: lots 494–496); **Helike:** abandoned in 4th c. BC (CPCI no. 235); **Keryneia:** degraded, dependent on Aigion in R period (CPCI no. 236; Polyb. 2.41.8; Strabo 8.7.5; Paus. 7.25.5; Rizakis 2008: 162, 213–214); pre-R city size c. 10 ha (based on Rizakis 2008: 212 fig. 20); **Leontion:** *kome* of Patras in R period (CPCI no. 237; Rizakis 2008: 147); pre-R walled area (and probably built-up area) c. 4 ha (CPCI no. 237; Rizakis 2008: 144 fig. 16, 146 fig. 17); **Olenos:** certainly abandoned by 2nd c. BC (CPCI no. 238; Rizakis 2008: 104–105; Paus. 7.18.1); **Pharai:** *kome* of Patras in R (CPCI no. 241; Rizakis 1997: 22–24 fig. 3; Rizakis 2008: 110; Paus. 7.22.1); mention of pre-R *agora* (Paus. 7.22.1); **Phelloe:** degraded; omitted from Polybios' list of Achaean cities (CPCI no. 242; Papachatzis 1980: 167; Paus. 7.26.10); **Rhypes:** probably abandoned in 3rd c. BC (CPCI no. 243; Rizakis 2008: 153; Strabo 8.7.5; Paus. 7.23.4); **Tritaea:** *kome* of Patras in R period (CPCI no. 244; Rizakis 1997: 22–24 fig. 3; Rizakis 2008: 131–132; Paus. 7.22.6).

Classical-Hellenistic secondary settlements operative in Roman times

Erineos: (CPCI p. 477; Paus. 7.22.10); **Panormos:** (CPCI p. 478; Paus. 7.22.10).

ELIS

Classical-Hellenistic *poleis* operative in Roman times

Elis: (CPCI no. 251; Dittenberger and Purgold 1896: nos. 335, 437, 484, 619, 622; Lampropoulou 1991: 284; Paus. 6.23–24); Elis was an unwallled C city, whose size was previously estimated as c. 400–500 ha (Yalouris 1994; CPCI no. 251). Recent evidence from satellite remote sensing and geophysics has shown an orthogonal town plan occupying c. 150 ha (Donati and Sarris 2016; Donati 2017), but not all of this area was built up. Moreover, a significant part of the city was occupied by buildings/facilities which were used only periodically, by the athletes who took part in the Olympic Games and with their attendants, who were obliged to stay in the city of Elis for a fixed period of time before the games (Andreou and Andreou 2010: 11). Even if these areas are excluded, however, it seems safe to estimate the size of the built-up area of the C-H city as c. 80–160 ha. Regarding R times, although Yalouris (1994) speaks of expansion, the archaeological evidence does not

seem to support this suggestion. The establishment of industrial installations (i.e. pottery kilns) in the core of the old city suggests shrinkage rather than expansion. The size of the R city cannot be established, but based on the archaeological evidence available at present a size guesstimate of c. 40–80 ha seems plausible; R interventions in theatre, R public baths, mention of *agora* (Paus. 6.21.1, 23.8, 24.2; Papachatzis 1979: 396 fig. 359; Yalouris 1994: 454–455; Di Napoli 2013: 63–65); Nerva–Antonine coinage (Head 1911: 426; *RPC* III: lots 295–324; *BCD Peloponnesos*: lots 697–698; Touratsoglou 2010: 243).

Classical-Hellenistic *poleis* abandoned, degraded or with no evidence in Roman times

Kyllene: dependent city in territory of Elis, with brief spell of independence, in R just port of Elis (*CPCI* p. 254; Servais 1961; Strabo 8.3.4; Paus. 6.26.4–5); **Lasion:** (dependent on Elis or Arcadia) operative till late 3rd c. BC; no trace for R period (*CPCI* no. 256; Roy 1999: 166); **Letrinoi:** (from 400 BC independent from Elis, but again subordinated to that city by 362), in R period just a secondary settlement (*CPCI* no. 258; Paus. 6.22.8); **Pylos:** probably dependent on Elis, abandoned before 2nd c. BC (*CPCI* no. 263; Roy 1999: 168, 170); Paus. (6.22.5) describes it as abandoned, but archaeological evidence suggests that in R times (2nd – 3rd c. AD) a secondary agglomeration was active at the site (Coleman 1986: 8, 123). Based on their subordinate status and the small size of their territories all these settlements may be assigned to the 1–20 ha bracket.

Classical-Hellenistic secondary settlements (and sanctuaries) operative in Roman times

Harpina: (*CPCI* p. 492; McDonald and Rapp 1972: no. 723; Strabo 8.3.32; Paus. 6.21.8); **Myrsinos/Myrtountion:** (*CPCI* p. 492; Strabo 8.3.10); **Olympia:** R *odeion*, aqueduct and public baths, mention of *stadion* (Paus. 6.7.8; Nielsen 1993: 34 C.272, C.273, C.274; Lolos 1997: 308; Di Napoli 2013: 65); **Pheia:** (*CPCI* p. 492; Roy 2008: 267; Strabo 8.3.13).

Classical-Hellenistic secondary settlements abandoned, possibly abandoned, or with no evidence in Roman times

Hyrmine: (*CPCI* p. 492; Strabo 8.3.10); **Heracleia:** (*CPCI* p. 492; Strabo 8.3.32; Paus. 6.22.7); **Salmone:** (*CPCI* p. 492; Strabo 8.3.32).

TRIPHYLIA

Classical-Hellenistic *poleis* operative in Roman times

Lepreon: perhaps still a self-governing *polis* in R times (*CPCI* no. 306; Polyb. 4.77.9; Paus. 5.5.3–6); the bleak picture painted by Pausanias permits us to suggest a city size of 1–20 ha.

Classical-Hellenistic *poleis* degraded, abandoned or with no evidence in Roman times

Ep(e)ion: subordinate to Elis, autonomous, or in Arcadian confederacy, abandoned in R times (*CPCI* no. 304; Pritchett 1989: 50–53; Polyb. 4.77.9); based on dependent status and small size of territory we could guesstimate a city size of 1–20 ha; **Epitalion:** subordinate to Elis or Sparta or in the Arcadian confederacy, in R times just a secondary settlement (*CPCI* no. 305; *ADelt* 23, 1968, B1: 165–171; Papachatzis 1979: 222–224; Strabo 8.3.4); **Hypana:** H *polis* synoecised with Elis, probably in the late 2nd c. BC (*CPCI* p. 541; Nielsen 2002: 609–610; Polyb. 4.77.9; Strabo 8.3.15); H size c. 5 ha (Nielsen 2002: 610); **Makiston:** may have ceased to exist before 2nd c. BC (*CPCI* no. 307; Roy 1999: 168); **Phrixa(i):** dependent on Elis, autonomous or in Arcadian confederacy, in R times possibly abandoned (*CPCI* no. 309; Polyb. 4.77.9; Paus. 6.21.6); based on dependent status and small size of territory we could guesstimate a city size of 1–20 ha; **Pyrgoi:** no evidence for R period (*CPCI* no. 310; Polyb. 4.77.9); **Samikon:** H *polis*, in R times a secondary settlement (*CPCI* p. 542; Nielsen 2002: 610–11; Papachatzis 1979: 473 n. 2; Polyb. 4.77.9; Strabo 8.3.19; Paus. 5.6.1); pre-R walled area 9 ha (Pritchett 1989: 64; Adam 1982: 185); **Skillous:** dependent on Elis, autonomous or in Arcadian confederacy, in R times possibly abandoned (*CPCI* no. 311; Paus. 5.6.4); **Stylangion:** H *polis* in R times possibly abandoned (*CPCI* p. 542; Nielsen 2002: 611; Pritchett 1989: 71–72); **Typaneai:** H *polis*, no clear evidence for R times, possibly active as a secondary settlement (*CPCI* p. 542; Nielsen 2002: 611–612; Polyb. 4.77.9; Strabo 8.3.15); based on Strabo's description we can guesstimate a small size (1–20 ha).

ARCADIA

Classical-Hellenistic *poleis* operative in Roman times

Alea: in R times perhaps dependent on Argos (CPCI no. 265; Papachatzis 1980: 266; Roy 2010: 59; Paus. 8.23.1); H walled area c. 15 ha (Meyer 1939: plan II; Papachatzis 1980: 265); pre-R city size (based on walled area) 1–20 ha, which should also be the size of the R city (no evidence for city expansion in R); **Alipheira:** (CPCI no. 266; Roy 2010: 60, 62; Paus. 8.27.7–8); pre-R walled area c. 1–20 ha (Orlandos 1967–68: pl. 2, pp. 41–42 fig. 24; Pikoulas 1983: 54; Pritchett 1989: 42–45; CPCI no. 266); based on Pausanias' description and archaeological context, the R city could not be larger than its C-H predecessor; **Heraia:** (CPCI no. 274; Roy 2010: 59; Paus. 8.26.1); Recent evidence from satellite remote sensing and geophysics has shown an orthogonal town plan covering an urban zone of c. 55 ha (Donati 2017). However, since we do not know if this area was entirely covered by buildings, it remains unclear whether the C-H city belongs to the 20–40 ha bracket or to the 40–80 ha bracket; R public baths (Paus. 8.26.1; Philadelphus 1931–32); Severan coinage (BCD *Peloponnesos*: lots 1374–1377; Touratsoglou 2010: 245–248); **Kaphyai:** (CPCI no. 275; Roy 2010: 59; Paus. 8.23.3); Severan coinage (BCD *Peloponnesos*: lots 1385–1392; Touratsoglou 2010: 245–248); **Kleitor:** (CPCI no. 276; Roy 2010: 59; Paus. 8.21.3); pre-R walled area 58 ha, and thus city size probably 40–60 ha (CPCI no. 276; Petritaki 1996: 83–84; Petritaki 2005: 353); R city size c. 30 ha (Petritaki 2005: 356–359 and pl. 1; Papachatzis 1980: 254 fig. 231); R interventions in *agora*; pre-R theatre dismantled (Petritaki 2001: 122; Petritaki 2005: 355); Severan coinage (BCD *Peloponnesos*: lots 1441–1445; Touratsoglou 2010: 245–248); **Kynaitha:** (CPCI no. 278; Roy 2010: 59; Paus. 8.19.1); mention of *agora* (Paus. 8.19.1), uncertain aqueduct (Lolos 1997: 307); Severan coinage (Head 1911: 447; Roy 2010: 64; Touratsoglou 2010: 248 map 3); **Lykosoura:** dependent to Megalopolis (CPCI no. 280; Larsen 1938: 473; Roy 2008b: 179–180; Roy 2010: 60; Paus. 8.27.4–6); based on the historical/archaeological context we can assume a size of 1–20 ha; **Mantineia:** (CPCI no. 281; IG V2, 268; Paus. 8.8.4; Roy 2010: 59); pre-R walled area 124 ha, of which 60 ha might have been inhabited according to Hansen (CPCI no. 281; Hansen 2006: 170 n. 23). Recent evidence from satellite remote sensing and geophysics has shown an orthogonal town plan covering all the *intra-muros* area, but large parts of this area remained devoid of buildings; a size suggestion for the built-up area is still lacking (Donati and Sarris 2016; Donati 2017). In R times at least the southern half of the city was active (Strabo 8.8.2; *ADelt* 29, 1973–74, B2: 296–301), and we cannot be sure that the R city was smaller than the C-H one; based on the above we can broadly guesstimate the size of the C-H and R city as c. 40–80 ha; R interventions in *agora* and theatre, mention of *stadion*, uncertain aqueduct (Paus. 9.10.1; Fougères 1898: 165, 179–182, 184–186; Hodgkinson and Hodgkinson 1981: 257; Papachatzis 1980: 199 fig. 155; Lolos 1997: 307; Roy 2010: 69; Di Napoli 2013: 67–68); Nerva-Antonine and Severan coinage (Head 1911: 450; BCD *Peloponnesos*: lots 1493–1510; Touratsoglou 2010: 245–248); **Megalopolis:** (CPCI no. 282; Petronotis 1973; Roy 2007: 289; Roy *et al.* 1989: 146–147 n.7; Roy 2010: 60; IG V2, 456; Paus. 8.27.1); pre-R walled area 360 ha, of which Nielsen (CPCI no. 282) guesstimates that 100 ha were built up; in R times the city is described in decay (Strabo 8.8.1; Paus. 8.33.1; Petronotis 1973: 76; Roy 2010: 63, Fritzilas 2015), and thus not bigger than the better maintained Tegea (c. 75 ha); hence we could guesstimate a size 40–80 ha; R interventions in *agora*, R aqueduct and public baths, mention of theatre and *stadion* (Paus. 8.32.1, 3; Petronotis 1973: 77, 143 and fig. 7; Papachatzis 1980: 309 fig. 305 and 310 fig. 306; Roy 2010: 63; Di Napoli 2013: 68–70); Severan coinage (BCD *Peloponnesos*: lots 1569–1571; Touratsoglou 2010: 245–248); **Orchomenos:** (CPCI no. 286; IG V2, 346; Paus. 8.13.2; Roy 2010: 59); The Geometric-Archaic city was located in the southern slope of Kalpaki hill (near the modern village). After the fortification of the top of the hill in 350–325 BC, the city proper was transferred within the walls, on the top, although habitation in the former town seems not to have ceased. In R times the town within the walls was abandoned, and the city proper was located in the old position, to the southwards slope, there where was lying the Geometric, Archaic and part of the Classical habitation area. The C walls enclosed an area of c. 20 ha. If we accept that part of the habitation zone was mainly outside the walls we could estimate the total C-H size of the city in 20–40 ha, while that of R times in c. 1–20 ha (Paus. 8.13.2; CPCI no. 286; Osborne 1987: 118, 121); Severan coinage (BCD *Peloponnesos*: lots 1584–1589; Touratsoglou 2010: 245–248); **Pallantion:** in R *civitas libera et immunis* (CPCI no. 289; Paus. 8.43.1; Larsen 1938: 447; Roy 2008b: 180; Roy 2010: 66); based on the general historical and archaeological context we could assume a small size, 1–20 ha; **Pheneos:** (CPCI no. 291; Paus. 8.14.4; Roy 2010: 59); city size for both pre-R and R times 1–20 ha; in decay in R (CPCI no. 291; Stangl 1999: 178; Papachatzis 1980: 233); mention of *stadion* (Paus. 8.14.9); Severan coinage (BCD *Peloponnesos*: lots 1634–1641; Touratsoglou 2010: 245–248); **Phigaleia:** (CPCI no. 292; Paus. 8.39.6; 8.40.1; Roy 2010: 59); pre-R walled area c. 114 ha, not all of it though inhabited; the city size is essentially unknown (CPCI no. 292; Cooper and Myers 1981: fig. 4; Papachatzis 1980: 351 fig. 361); mention of *agora* (Paus. 8.40.1); Severan coinage (BCD *Peloponnesos*: lots 1643–1660; Touratsoglou 2010: 245–248); **Psophis:** (CPCI no. 294;

Paus. 8.24.6; Roy 2010: 59); *CPCI* notes 80 ha for the pre-R walled area based on old publications (Papandreou 1920). Petropoulos (2005: 364) although he notes that the area of the ancient city covers 80 ha, erroneously enough his up-to-date plan of the city shows that the walled area was much smaller, max. 40 ha; from this we can guestimate a pre-R city size 20–40 ha; the R size is unknown; Severan coinage (*BCD Peloponnesos*: lots 1689–1692; Touratsoglou 2010: 245–248); **Stymphalos**: (*CPCI* no. 296; Paus. 8.22.1, 3; Roy 2010: 59–60); based on the pre-R walled area of 40 ha (*CPCI* no. 296) we can assume a C-H city size 20–40 ha; from the 3rd – 2nd c. BC the city presents signs of population decline; there is little evidence for life in the early Roman city, which seems that it was restricted in the area eastwards of the acropolis, and thus at best half in size (c. 1–20 ha) than its predecessor (Schaus 2014: 9; Williams 2005: 400); **Tegea**: (*CPCI* no. 297; Paus. 8.45.1; *IG V2*, 25, 127–140); pre-R and R city size c. 75 ha (K. Ødegård pers. comm.); R interventions in theatre, R public baths, mention of *agora* and *stadion* (Paus. 8.47.4; 48.1, 4; 49.1; *IG V2*, 127; Di Napoli 2013: 70–71); Severan coinage (*BCD Peloponnesos*: lots 1753–1755; Touratsoglou 2010: 245–248); **Thelpousa**: (*CPCI* no. 300; Paus. 8.25.3; Roy 2010: 59); R interventions in *agora*, R public baths (Paus. 8.25.3; Petronotis 1973b; Jost 1985: 62 pl. 13; Jost 1986: 636 n.14, 638 fig. 13, 642; Pritchett 1989: 38; *CPCI* no. 300); Severan coinage (*BCD Peloponnesos*: lots 1764–1769; Touratsoglou 2010: 245–248).

Classical-Hellenistic *poleis* degraded, abandoned or with no evidence in Roman times

Asea: abandoned in R times (*CPCI* no. 267; Forsén and Forsén 2003: 307); pre-R size 15 ha (Forsén and Forsén 2003: 96); **Dipaia**: still operative in the 2nd c. BC, in R *kome* of Megalopolis (*CPCI* no. 268; Head 1911: 418; Roy 2010: 65; Paus. 8.27.7); **Eutaia**: in R *kome* of Megalopolis (Paus. 8.27.3; *CPCI* no. 270; Roy 2010: 67; Pikoulas 1988: 70–73 no. 24); **Gortys**: still operative in the 2nd c. BC, in R *kome* of Megalopolis (*CPCI* no. 271; Head 1911: 418); pre-R size c. 15 ha (*CPCI* no. 271; Martin 1947–48; Jost 1985: pl. 55; Papachatzis 1980: 298); **Halous**: no evidence for R (*CPCI* no. 272); **Helisson**: in R *kome* of Megalopolis (*CPCI* no. 273; Roy 2008: 179; Roy 2010: 65; Paus. 8.27.7, 30.1); **Lousoi**: still operative in the 2nd c. BC, in R *kome* of Kleitor (*CPCI* no. 279; Head 1911: 418; Roy 2010: 61; Mitsopoulos-Leon 2001; Oikonomides 2008; Paus. 8.18.8); based on the small territory (and the 1,000 souls which suggested that this could support) we can assume a city size 1–20 ha; **Methydrion**: still operative in the 2nd c. BC, in R *kome* of Megalopolis (*CPCI* no. 283; Nielsen 2002: 449–452; Head 1911: 418; Roy 2008: 179; Paus. 8.12.2; 8.27.7); pre-R walled area 11 ha (*CPCI* no. 283); **Nestane**: dependent to Mantinea, in R possibly abandoned (*CPCI* no. 284 and p. 518; Paus. 8.7.4); pre-R walled area not larger than 10 ha (*CPCI* no. 284); **Nonakris**: perhaps dependent to Pheneos, in R times abandoned (*CPCI* no. 285; Pikoulas 1986; Paus. 8.17.6); **Oresthasion**: one of the communities that the Arkadian Confederacy voted to relocate to Megalopolis (*CPCI* no. 287; Paus. 8.27.3); Paus. (8.44.2) describes the site as abandoned but archaeological evidence attests continuation till H and R times; surface survey suggests a pre-R city size 1–20 ha (Pikoulas 1988: 102–104); **Paos**: in R times secondary settlement dependent to Kleitor; Paus. (8.23.9) describes Paos in ruins but archaeological evidence suggests continuation (*CPCI* no. 288; Papandreou 1920: 121; Papachatzis 1980: 269–270 n. 2); the archaeological context suggests a small size, 1–20 ha; **Teuthis**: operative till the 2nd c. BC, in R a *kome* of Megalopolis (Paus. 8.27.7; 8.28.4; *CPCI* no. 298; Pikoulas 1986b; Head 1911: 418); **Thisoa**: operative till the 3rd – 2nd c. BC; in R *kome* of Megalopolis (*CPCI* no. 301; Nielsen 2002: 454; *BCD Peloponnesos*: lots 1770–1771; Jost 1985: 212 n.1; Paus. 8.27.4; 27.7); based on the small territory we can guestimate a small city size (1–20 ha); **Torthyneion**: dependent to Orchomenos, operative till H times, in R times probably abandoned (*CPCI* no. 302; Pikoulas 1990–91: 148–150); based on the demographical estimation (<1,000 souls), we can guestimate a small size (1–20 ha).

Classical-Hellenistic secondary settlements operative in Roman times

Aphrodision: (*CPCI* p. 506; Pikoulas 1988: 66–68 no. 20; Paus. 8.44.2); **Athenaion**: (*CPCI* p. 506; Pikoulas 1988: 65–66 no. 18; Paus. 8.44.2); **Haimoniai**: (*CPCI* p. 507; Pikoulas 1988: 90–93 no. 45); **Melaineai**: (*CPCI* p. 507); Paus. (8.26.8) describes it in ruins but Pikoulas (1999: 304–305) attests H and R pottery.

Classical-Hellenistic secondary settlements abandoned or possibly abandoned in Roman times

Basilis: (*CPCI* p. 506; Paus. 8.29.5); **Dasea(i)**: (*CPCI* p. 506; Papachatzis 1980: 331; Paus. 8.36.9); **Mainalos**: (*CPCI* p. 507; Paus. 8.36.8); **Makaria**: (*CPCI* p. 507; Paus. 8.36.9); **Thoknia**: (*CPCI* p. 508; Paus. 8.29.5); **Trapezous**: C polis, in H times secondary settlement (*CPCI* no. 303; Paus. 8.27.4–5); **Trikolonoi**: (*CPCI* p. 508; Paus. 8.35.6); **Zoiteion**: (*CPCI* p. 508; Paus. 8.35.6–7).

MESSENIA

 Classical-Hellenistic *poleis* operative in Roman times

Abia: (CPCI p. 554; Polyb. 23.17.2; Paus. 4.30.1; IG V1, 1352); **Asine:** (CPCI no. 313; Paus. 4.34.9–12; IG V1, 1411–1412); Severan coinage (Head 1911: 432; BCD Peloponnesos: lots 767–774; Touratsoglou 2010: 245–248); **Kardamyle:** (CPCI no. 315; Paus. 3.26.7; Papachatzis 1976: 455 n. 2); pre-R walled area c. 1–20 ha (Hope Simpson 1957: 234); **Kolonides:** (CPCI pp. 556–557; Plut. *Philop.* 18; Paus. 4.34.8; McDonald and Rapp 1972: no. 507); Severan coinage (Head 1911: 432; BCD Peloponnesos: lots 776–777); **Korone:** (CPCI no. 316; Strabo 8.4.5; Paus. 4.34.4; SEG 11, 985–986); pre-R city size 1–20 ha, no attestation for city expansion in R times (Hope Simpson 1957: 249, 251 fig. 100); mention of *agora* (Paus. 4.34.6); **Kyparissia:** (CPCI no. 317; SEG 11, 1025; Paus. 4.36.7); acropolis 2.5 ha, size of the lower town unknown, but probably 1–20 ha (McDonald and Rapp 1972: 276 no. 70); Severan coinage (Head 1911: 433; BCD Peloponnesos: lots 791–802; Touratsoglou 2010: 245–248); **Messene:** (CPCI no. 318; IG V1, 1449–1452; Paus. 4.31.4; Themelis 2010); pre-R walled area 290 ha (CPCI no. 318); pre-R built up area c. 100 ha (Hoepfner 2002–05: 224 Abb.1; Muth 2007: 280); R interventions in *agora*, theatre, *odeion* and *stadion*, R public baths (SEG 35, 343; Paus. 4.31.6; 32.6; Themelis 1999: 51–54, 90–91; Themelis 2010: 98; Muth 2007: 79–89; Di Napoli 2013: 73–82); Julio-Claudian and Severan coinage (RPC I: pp. 248–249; BCD Peloponnesos: lots 758–766; Touratsoglou 2010: 243–248); **Mothone:** in *R civitas libera* (CPCI no. 319; Larsen 1938: 447; Paus. 4.35.3); no evidence for the city-size, but probably not larger than the medieval town, and thus 1–20 ha (Papachatzis 1979: 163); Severan coinage (Head 1911: 433; BCD Peloponnesos: lots 804–813; Touratsoglou 2010: 245–248); **Pharai:** in R times dependent to the Lacedaemonians of Sparta (CPCI no. 320; Paus. 4.16.8, 30.2, 31.1; IG V1, 1361); small size guestimate (1–20 ha), based on the small territory; **Pylos/Koryphasion:** (Polyb. 4.16.7; Paus. 4.36.1; Alcock 2008: 183; CPCI p. 557; Papachatzis 1979: 177); Severan coinage (Head 1911: 433; BCD Peloponnesos: lots 814–822; Touratsoglou 2010: 245–248); **Thalamai:** (CPCI no. 321; IG V1, 1312, 1318; Paus. 3.21.7); small size guestimate (1–20 ha), based on the small territory; **Thouria:** in R times dependent to the Lacedaemonians of Sparta (CPCI no. 320; IG V1, 1381; Paus. 4.31.1); pre-R (and probably R) size 1–20 ha (McDonald and Rapp 1972: 288 no. 139); R public baths (Vitti and Vitti 2010: 278); Severan coinage (Head 1911: 433; BCD Peloponnesos: lots 828–838; Touratsoglou 2010: 245–248).

 Classical-Hellenistic *poleis* degraded, abandoned or with no evidence in Roman times

Aulon: called *oppidum* by Pliny; not refuted by Pausanias (CPCI no. 314; Pliny NH 4.5.14; Paus. 4.36.7); small size guestimate (1–20 ha), based on the small territory.

 Classical-Hellenistic secondary settlements upgraded to *polis* status in Roman times

Alagonia: (Paus. 3.21.7; 3.26.11; Papachatzis 1976: 408 n.1; CPCI pp. 547, 556, 558; Kennell 1999); city size 3 ha (CPCI p. 556; McDonald and Rapp 1972: 316 no. 548); **Gerania:** (Strabo 8.4.4; Paus. 3.21.7; 3.26.8; IG V1, 1336; CPCI pp. 547, 556, 558; Papachatzis 1976: 408 n.1; Kennell 1999); **Leuktron:** (Strabo 8.4.4; Pliny NH 4.5.16; Paus. 3.21.7, 26.4; CPCI pp. 547, 557–558; Papachatzis 1976: 408 n. 1; Kennell 1999); city size 5 ha (McDonald and Rapp 1972: 290 no. 148).

Classical-Hellenistic secondary settlements operative in Roman times

Andania: Paus. (4.33.6) describes the site in ruins but archaeological evidence attests continuation (CPCI p. 553; McDonald and Rapp 1972: 316 no. 607); **Kalamai:** (CPCI p. 556; Paus. 4.31.3); **Polichne:** (CPCI p. 554; Paus. 4.33.6; McDonald and Rapp 1972: 298 no. 233); **Prote:** (CPCI p. 558; Strabo 8.3.23; McDonald and Rapp 1972: 310 no. 407).

Classical-Hellenistic secondary settlements abandoned or possibly abandoned in Roman times

Ampheia: (CPCI pp. 552–533; McDonald and Rapp 1972: 318 no. 608).

LACONIA

 Classical-Hellenistic *poleis* operative in Roman times

Boia: (CPCI no. 327; Strabo 8.5.2; Paus. 3.21.7, 22.11; IG V1, 952, 954–955); small size guestimate (1–20 ha), based on the small territory; mention of *agora* (Paus. 3.22.13); Severan coinage (Head 1911: 433; BCD Peloponnesos: lots 952–961; Touratsoglou 2010: 245–248); **Epidauros Limera:** (CPCI no. 329; Paus. 3.21.7, 23.6–11); 1–20

ha size guestimate, based on the small fortified area (3 ha) (Hasluck 1907–08: 179–182); **Geronthrai**: (CPCI no. 332; Paus. 3.21.7, 22.6; Shipley 1996: 291 GG103); 1–20 ha size guestimate, based on the small acropolis and the territory; mention of *agora* (Paus. 3.22.7); **Gytheion**: the base of the *Eleutherolakonians* (CPCI no. 333; Paus. 3.21.6–9; IG V1, 1146–1147, 1162–1163, 1166–1171, 1176–1179; Shipley 1996: 296–297 JJ128); R theatre, aqueduct and baths, mention of *agora* (IG V1, 1208; Paus. 3.21.8; Papachatzis 1976: 407; *ADelt* 38 1983, B1: 94–97; Lolos 1997: 306; Di Napoli 2013: 83–86); Severan coinage (Head 1911: 433–434; *BCD Peloponnesos*: lots 962–985; Touratsoglou 2010: 245–248); **Las**: (CPCI no. 337; Paus. 3.21.7, 24.6); 1–20 ha size guestimate, based on the small territory; Pausanias speaks of ruins; Severan coinage (Head 1911: 436; *BCD Peloponnesos*: lots 987–995; Touratsoglou 2010: 245–248); **Oitylos**: (CPCI no. 340; IG V1, 1294; Paus. 3.21.7, 25.10); 1–20 ha size guestimate, based on the small territory and the general context; **Prasiai**: (CPCI no. 342; Paus. 3.21.7, 24.3); 1–20 ha size guestimate, based on the small territory; **Sparta**: in *R civitas libera et immunis* (CPCI no. 345; Larsen 1938: 447; Cartledge and Spawforth 1989: 143–159); *komedon* system of habitation, fortified for the first time in its history in the late 3rd c. BC; the walls, covering an area of c. 209 ha, enclosed four of the five villages from which the *polis* was constituted, and consequently included plenty of empty spaces; even after the construction of the wall, H and R tombs continued to be constructed in the empty spaces between the *komai* within the wall, and thus the inhabited zones must have been scattered in all the *intra-muros* area in a low density manner (CPCI no. 345; Kourinou 2000: 62, 89; Y. Pikoulas and E. Kourinou pers. comm.); hence, it is impossible to estimate the built up area of this city, but theoretically someone could guestimate an area of at least 40 ha empty spaces and thus locate the city-size of H Sparta in the 80–160 ha bracket. Roman Sparta, according to Spawforth, could only with difficulty exceed 12,000 people, scattered again within all the area of the 3rd c. BC circuit wall. He compares R Sparta with Pompeii (15,000 people in 79 AD and 65 ha in size), ending up with the conclusion that R Sparta was smaller and with low population density (Cartledge and Spawforth 1989: 133); although, again, it is impossible to estimate the built up area of the R city, Spawforth's suggestion permits us to estimate (theoretically) that the built up area of R Sparta should cover c. 40–80 ha (scattered though in all the area within the walls); R interventions in *agora*, R theatre, aqueduct and public baths, in the late 3rd c. AD the sanctuary of Orthia was transformed into amphitheatre (Paus. 3.11.2, 4, 8; 3.12.1, 10; 3.14.1; 3.21.8; Papachatzis 1976: 368–376 figs. 385, 390–391; Cartledge and Spawforth 1989: 109, 123, 127–131, 216–225; Lolos 1997: 309; Kourinou 2000: 99–129; Di Napoli 2013: 86–93); Julio-Claudian, Nerva-Antonine and Severan coinage (RPC I: lots 1101–1115; III: lots 335–337; IV online; *BCD Peloponnesos*: lots 932–947; Touratsoglou 2010: 242–248).

Classical-Hellenistic *poleis* degraded, abandoned or with no evidence in Roman times

Aigys: active but probably degraded in R times (CPCI no. 323; Shipley 1996: 283 CC258; Pikoulas 1988: 139–147, esp. 145–147); small size guestimate (1–20 ha), based on the small territory; **Anthana**: (CPCI no. 324; Paus. 2.38.6); Pausanias (2.38.6) calls it *kome* but Laconia survey does not report R finds (Shipley 1996: 279 AA19); **Belmina**: Pausanias just mentions the name of the place, but Laconia survey does not report R finds; some scanty R finds are reported by Pikoulas (Paus. 3.21.3; CPCI no. 326; Shipley 1996: 283 CC41; Papachatzis 1976: 404; Pikoulas 1988: 119–121 nos. 74–77); **Eua**: in R times *kome* (CPCI no. 331; Paus. 2.38.6; Shipley 1996: 278 AA13); **Kromnos**: active till H times, abandoned in R (CPCI no. 334; Paus. 8.27.4, 34.6; Pikoulas 1988: 161–166 no.121); 1–20 ha size guestimate, based on the small territory; **Kyphanta**: in ruins according to Pausanias, but Laconia survey recorded R finds (CPCI no. 335; Paus. 3.24.2; Shipley 1996: 282–283 BB38); 1–20 ha size guestimate, based on the small territory; **Kythera**: in late H perhaps autonomous but in early R possession of C. Iulius Eurykles of Sparta (CPCI no. 336; Strabo 8.5.1; Huxley 1972: 39; Petrocheilos 1984: 122–124; Tsaravopoulos 2005: 201; Gregory and Tzortzopoulou-Gregory 2015: 54–55); pre-R walled area 15 ha (1–20 ha city-size) (CPCI no. 336; Petrocheilos 1984: 68–69, 94–97); **Pellana**: (CPCI no. 341; Strabo 8.7.5; Paus. 3.21.2; Shipley 1996: 288 GG69); 1–20 ha size guestimate, based on the small territory; **Sellasia**: abandoned in the 3rd c. BC; (CPCI no. 343; Shipley 1996: 321–323 A118); pre-R size 3 ha (Shipley 1996: 321–323 A118).

Classical-Hellenistic secondary settlements upgraded to *polis* status in Roman times

Akriai: (CPCI p. 574; Paus. 3.21.7; 3.22.4; Shipley 1996: 308–309 MM219); c. 20–25 ha city-size (Shipley 1996: 308–309 MM219); **Asopos**: *ex-novo* foundation? (CPCI p. 575; IG V1, 968–970; Paus. 3.21.7; 3.22.9); Severan coinage (*BCD Peloponnesos*: lots 948–951; Touratsoglou 2010: 245–248); **Kainepolis**: (CPCI p. 576; IG V1, 1244, 1248; Paus. 3.21.7, 25.9; Shipley 1996: 305 LL201; Cartledge and Spawforth 1989: 174–175); **Marios**: Pausanias uses also the term *chorion*, indicative of the size and status of the settlement (CPCI p. 575; Paus. 3.21.7, 22.8); **Pyrrikhos**: (Paus. 3.21.7, 25.2–3; Papachatzis 1976: 437–438; Shipley 1996: 301–302 LL163); mention of *agora*

(Paus. 3.25.3); **Teuthrone**: (CPCI p. 576; Paus. 3.21.7, 25.4; Shipley 1996: 305–306 LL203–204; Le Roy 1961: 222–223).

Classical-Hellenistic secondary settlements operative in Roman times

Aigiai: (CPCI p. 573; Paus. 3.21.5; Shipley 1996: 296 JJ124); **Alesiai**: (CPCI p. 574; Paus. 3.20.2); **Amyklai**: (Paus. 3.19.6); **Asine**: (CPCI p. 574; Strabo 8.5.2; Shipley 1996: 301 LL162); **Astron**: (CPCI p. 574; Shipley 1996: 277 AA6); **Gluppia**: (CPCI p. 574; Paus. 3.22.8; Shipley 1996: 281–282 BB31); **Karyai**: (CPCI p. 574; Paus. 3.10.7; Shipley 1996: 284 DD45); **Kotyrtia**: (CPCI pp. 574–575; IG VI, 961; Shipley 1996: 311 NN239); **Krokeai**: (CPCI p. 575; Paus. 3.21.4; Shipley 1996: 295 JJ120); **Leuktron**: (CPCI p. 575; Pikoulas 1988: 131–135); **Neris**: (CPCI p. 575; Paus. 2.38.6; Shipley 1996: 277 AA3); **Pleiai**: (Paus. 3.22.6; IG VI, 602; Shipley 1996: 307–308 MM216); **Psamathous**: (CPCI p. 576; Paus. 3.25.4; Shipley 1996: 306 LL209); **Trinasos**: (CPCI p. 576; Paus. 3.22.3; Shipley 1996: 296 JJ126); **Tyros**: (CPCI p. 576; Shipley 1996: 281 BB28); **Zarax**: listed among the *Eleutherolakonians* by Pausanias but later the writer describes it as *chorion* (CPCI pp. 576–577; Paus. 3.21.7, 24.1; Shipley 1996: 310 NN231).

Classical-Hellenistic secondary settlements abandoned or possibly abandoned in Roman times

Helos: perhaps *polis* in late H (CPCI p. 574; Strabo 8.5.2; Paus. 3.27, 20.6, 22.3; Shipley 1996: 299 KK141); **Hippola**: (CPCI p. 574; Paus. 3.25.9; Papachatzis 1976: 447–448; Shipley 1996: 304 LL188); **Kyparissia**: (CPCI p. 575; Strabo 8.5.2; Paus. 8.22.9); **Malea**: (CPCI p. 575; Pikoulas 1988: 129–131); **Polichna**: (CPCI pp. 575–576; Shipley 1996: 282 BB35); **Selinous**: (CPCI p. 576; Paus. 3.22.8; Shipley 1996: 286 FF98); **Tainaron**: (CPCI p. 576; Paus. 3.25.4–8; Papachatzis 1976: 440–443; Shipley 1996: 306–307 LL210).

MEGARIS

Classical-Hellenistic *poleis* operative in Roman times

Aigosthena: (CPCI no. 224; Paus. 1.44.4; IG VII, 226–227; Kahrstedt 1954: 126; Orlandos 1954: 142); pre-R walled area <10 ha, city size for both pre-R and R times c. 1–10 ha; in R perhaps 3 ha (Benson 1895); Severan coinage (BCD *Peloponnesos*: lots 62–63); **Megara**: (CPCI no. 225; Paus. 1.40.1; IG VII, 25–26, 67–105); walled area 140 ha (CPCI no. 225; Zoridis 1985: 229–230; Smith 2008: 18; Sakellariou and Faraklas 1972: 55); it is impossible to estimate the built up area of the C-H city, even to guesstimate whether it exceeded the 80 ha or not, and thus to locate Megara in our 40–80 ha or 80–160 bracket; anyway R Megara presented signs of decay; the organised cemeteries outside the walls were in use till late H times but R tombs have been occasionally revealed within the walls (ADelt 1976–1999; Paus. 1.36.4; Smith 2008: 107); it is plausible that the R city was 40–80 ha if not smaller; uncertain R aqueduct, R public baths (IG VII, 26; Threpsiadis 1936: 49–50; Sakellariou and Faraklas 1972: 55; Lolos 1997: 306); Nerva-Antonine and Severan coinage (RPC III: lots 408–411; IV online; BCD *Peloponnesos*: lots 41–63); **Pagai**: (CPCI no. 226; Paus. 1.44.4; Kahrstedt 1954: 126–127; Sakellariou and Faraklas 1972: 64; Papachatzis 1974: 510 n.1); pre-R size c. 22 ha, 12 inhabited; the R city in decay and thus not larger than its predecessor (Sakellariou and Faraklas 1972: 64 and fig. 33; Kahrstedt 1954: 127); Nerva-Antonine and Severan coinage (RPC IV online; BCD *Peloponnesos*: lots 65–70).

Classical-Hellenistic secondary settlements operative in Roman times

Krommyon: (Sakellariou and Faraklas 1972).

ATTICA AND SARONIC GULF

Classical-Hellenistic *poleis* operative in Roman times

Aigina: in R *civitas libera* (CPCI no. 358; IG IV, 18–19; Larsen 1938: 446; Welter 1961: 84–87); mention of theatre and *stadion* (Paus. 2.29.11; Di Napoli 2013: 7 n.8); Severan coinage (Head 1911: 398; Touratsoglou 2010: 247–248 maps 2–3); **Athenae**: in R *civitas foederata* (CPCI no. 361; Larsen 1938: 446; Geagan 1979: 374); pre-R walled area 211 ha (excluding the Long Walls); Travlos estimates 120 ha inhabited, 30 ha occupied by public areas and public buildings, and 65 ha empty spaces; in R times the area of *Koile* (36 ha) was abandoned but the eastward extension (c. 41 ha) of the ‘New City’ of Hadrian was added, essentially a luxury *proasteion* with villas and baths scattered in a park-like landscape; this eastward extension was in the second half of the 3rd AD (under Valerian), included in the fortified area of the city. It seems that R Athens maintained more or less the same size as its predecessor (120–150 ha), but probably in less intensive use of domestic space (CPCI no. 361; Travlos 1960: 71, 111–112; Geagan 1979: 396–397; Zachariadou 2008; Eleutheratou 2008; Spetsieri-Choremi

2013; Theocharaki 2015); R *agora*, *odeia*, aqueduct and public baths, R interventions in the theatre and the *stadium* (Travlos 1960: 93–124; Camp 2001: 183–222; Raja 2012: 91–135; Stefanidou-Tiveriou 2008; Di Napoli 2013: 8–24; Lolos 1997: 304–305; Nielsen 1993: 32 C.255–259); Nerva-Antonine and Severan coinage (Head 1911: 389–390; Touratsoglou 210: 247–248 maps 2–3; RPC III: lots 406–407; RPC IV online).

Classical-Hellenistic *poleis* degraded in Roman times

Salamis: (CPCI no. 363); 1–20 ha size guestimate, based on the small territory.

Classical-Hellenistic secondary settlements operative in Roman times

Acharnai: (Paus. 1.31.6; Kellogg 2013: 192; Platonos-Yiota 2004; Papachatzis 1974: 410–413); **Aixone:** (CPCI p. 626; Osborne 1985: 192; Eliot 1962: 17–21); **Eleusis:** (CPCI no. 362; Travlos 1988: 91–102); **Marathon:** but in R times a *latifundium* of Herodes Atticus (Travlos 1988: 216–221); **Peiraeus:** (Paus. 1.1.2; Travlos 1988: 340–347); c. 305 ha walled area, the half of which built up in C-H times; from the 3rd -2nd c. BC onwards Peiraeus shrinks and in R times the settlement was concentrated on the Isthmus between the Kantharos and Zea harbours, covering an area of c. 45–55 ha (CPCI no. 361 p. 634; Grigoropoulos 2016: 242–247 fig. 3; Grigoropoulos 2009: 164–165; Grigoropoulos 2005 vol. I: 40–41 ff., 57; vol. II: fig. 20; Eickstedt 1991; Steinhauer 2009); R interventions in theatre, R aqueduct and public baths (Di Napoli 2013: 24–25; Lolos 1997: 306; Grigoropoulos 2005 vol. I: 65–67); **Rhamnous:** (Paus. 1.33.2; Traill 1986: 138; Petrakos 1999: 42–43, 427–428; Papachatzis 1974: 435–436).

Classical-Hellenistic secondary settlements abandoned or with no evidence in Roman times

Anaphlystos: (Eliot 1962: 104–109; Osborne 1985: 192; Travlos 1988: 16); **Aphidna:** (Osborne 1985: 192; Ober 1985: 140–141; Traill 1986: 138); **Euonymon:** (Travlos 1988: 6–7); **Kephale:** (Paus. 1.31.1; Osborne 1985: 193); **Lamprae:** (Paus. 1.31.3; Eliot 1962: 53–59); **Paiania:** (Traill 1986: 129); **Phaleron:** (Travlos 1988: 288–290; Papachatzis 1974: 96–97); **Thorikos:** abandoned in R times (Travlos 1988: 430–433; Papachatzis 1974: 404 n.1).

EUBOEA

Classical-Hellenistic *poleis* operative in Roman times

Chalkis: (CPCI no. 365; Strabo 10.1.8, 11; TIR J35.I: 210–211; Giannakopoulos 2012); pre-R walled area c. 100 ha, enclosing plenty of empty spaces; we can guestimate 40–80 ha built up area for both pre-R and R times (Sampson 1976: 17, 27 and map; Bakhuizen 1985: 92 fig. 58; D. Christodoulou pers. comm.); mention of *agora*, theatre and *stadium*, R public baths (Giannakopoulos 2012: 207; Bakhuizen 1985: 84–87; Sapouna-Sakellarakis 1995: 38–39, 66; Sampson 1976: 39, 44 n. 87); Julio-Claudian, Nerva-Antonine and Severan coinage (RPC I: lots 1343–1354; III: lots 414–415; IV online; BCD Euboea: lots 274–305; Picard 1979: 118–137); **Eretria:** (CPCI no. 370; Giannakopoulos 2012); pre-R walled c. 82 ha, built up area 40–80 ha (CPCI no. 370; Ducrey *et al.* 1993: 10 fig. 1; Reber 1998: 14 Abb. 1); in R times c. the 1/4 of the C walled area was occupied, c. 20 ha (Swiss School of Archaeology in Greece website, viewed 15 December 2017, <<https://www.unil.ch/esag/home/menueinst/eretria/history/roman-period.html>>; TIR J35.I: 221; Schmid 1999: 292); Nerva-Antonine coinage (Head 1911: 364; BCD Euboea: lot 359; RPC IV online); **Histiaia:** (CPCI no. 372; Giannakopoulos 2012; Gregory 1979: 259–268); **Karystos:** (CPCI no. 373; Giannakopoulos 2012); the size of the C-H city is essentially unknown, despite Keller's research; for R Karystos Alcock suggests 20–40 ha (Alcock 1993: 161 fig. 56); Julio-Claudian and Nerva-Antonine coinage (Head 1911: 356–357; BCD Euboea: lots 599–604; RPC I: lots 1355–1358; III: lots 416–419).

Classical-Hellenistic secondary settlements operative in Roman times

Aidepsos: (CPCI p. 644; Gregory 1979; Nikolopoulos 2004); **Aigai:** (CPCI p. 644; Sackett *et al.* 1966: 53 no. 26); **Amarnthos:** (CPCI p. 644; Fachard 2012: 308–310 nos. 52–57); **Athenai Diades:** *polis* till 357 BC (CPCI no. 364; Picard 1979: 211; Sackett *et al.* 1966: 37 no. 3); **Dion:** *polis* till 357 BC (CPCI no. 368; Picard 1979: 209–212; Sackett *et al.* 1966: 37 no. 2); **Dystos:** *polis* till the 5th c. BC (CPCI no. 369; Fachard 2012: 202–211, 330 no. 146); **Elymnion:** (CPCI p. 644; Sackett *et al.* 1966: 49 no. 21); **Geraistos:** (CPCI p. 645; Chidioglou 2012: 213–229); **Kotylaion:** (CPCI p. 645; Fachard 2012: 167–192); **Marmarion:** (CPCI p. 645; Sackett *et al.* 1966: 80 no. 90; Chidioglou 2012: 253–254, 278, 363); **Oichalia:** (CPCI p. 645; Fachard 2012: 66–67, 324 no. 119); **Orobai:** perhaps *polis* till the 5th c. BC (CPCI no. 374; Picard 1979: 211; Sackett *et al.* 1966: 46 no. 19); **Porthmos:** (CPCI p.

646; Fachard 2012: 56–57, 164, 316 no. 92; Chatzidimitriou 2000); **Styra**: polis till the 5th – early 4th c. BC (CPCI no. 377; Fachard 2012: 334 no. 166).

Classical-Hellenistic secondary settlements abandoned, possibly abandoned or with no evidence in Roman times

Aiglepheira: (CPCI p. 644; Fachard 2012: 311 no. 61); **Grynchai**: polis till the 5th c. BC (CPCI no. 371; Fachard 2012: 320 no. 102); **Kerinthos**: (CPCI p. 645; Sampson 1975; Sackett *et al.* 1966: 43 no. 13); **Parthenion**: (CPCI p. 645; Fachard 2012: 156–157); **Tamynai**: (CPCI p. 646; Fachard 2012: 64–65, 164 no. 108, 321–322 nos. 107–108; Chatzidimitriou 2000: 40–43); **Zarax**: (CPCI p. 646; Fachard 2012: 73, 332 no. 157).

BOEOTIA

Classical-Hellenistic poleis operative in Roman times

Akraiphia: (CPCI no. 198; IG VII, 2711–2712, 2725; Paus. 9.23.5; Fossey 1979: 554–560; Oliver 1971); walled area 10–17 ha; city size 1–20 for both pre-R and R times (Fossey 1979: 54; Fossey 1988: 266–268; Oliver 1971: 221; Farinetti 2011: 141, 316–317); mention of *agora* and theatre (IG VII, 2712; Fossey 1979: 558, 560); **Anthedon**: (CPCI no. 200; Strabo 9.2.13; Paus. 9.22.5; IG VII, 4173; Fossey 1988: 255; Farinetti 2011: 204–205; Wallace 1979: 173–174); walled area 30 ha; city size 1–20 ha, at least for the R period (CPCI no. 200; Fossey 1988: 253 fig. 32; Wallace 1979: 57–59; Farinetti 2011: 204, 376); **Chaironeia**: (CPCI no. 201; IG VII, 3418–3419, 3425–3426; Paus. 9.40.5; Fossey 1979: 581–582); pre-R city size c. 40 ha; no evidence for the R period (CPCI no. 201; Bintliff 1997: 244); R interventions in theatre and perhaps in *agora* (Fossey 1979: 579; Fossey 1988: 379; Farinetti 2011: 284 n. 7; Di Napoli 2013: 29); **Hyettos**: (CPCI no. 207; IG VII, 2833, 2834; Papachatzis 1981: 164); pre-R size 30 ha; R size 15 ha (J. Bintliff pers. comm.); **Kopai**: (CPCI no. 209; Paus. 9.24.1; IG VII, 2794; Fossey 1979: 561; Fossey 1988: 280); Bintliff (1997: 244) suggests c. 20 ha city-size (for both pre-R and R times); **Koroneia**: (CPCI no. 210; IG VII, 2870, 2874, 2879–2881; Fossey 1979: 567–570); pre-R size 38 ha; R size 12 ha (J. Bintliff pers. comm.); mention of *agora* (Paus. 9.34.3), aqueduct (Lauffer 1986; Bintliff *et al.* 2008: 43–45); **Levadeia**: (CPCI no. 211; IG VII, 1675, 3103–3105; Paus. 9.38.1; Fossey 1979: 574); R aqueduct (Fossey 1979: 572; Fossey 1988: 345 n. 3); **Orchomenos**: (CPCI no. 213; Paus. 9.34.6; Fossey 1979: 575–578); 40–80 ha size guestimate for the C-H city; R size completely unknown (CPCI no. 213; Farinetti 2011: 291–292); **Plataiai**: in *R civitas libera* (CPCI no. 216; Paus 9.1.1–2, 5–7; IG VII, 1676; Konecny *et al.* 2013: 42–45; Larsen 1938: 447); pre-R size c. 35 ha; R size c. 20 ha (Konecny *et al.* 2013: 39, 135 ff., 189, 349, 418; A. Konecny pers. comm.); R interventions in theatre (Konecny *et al.* 2013: 144–146); **Tanagra**: in *R civitas libera* (CPCI no. 220; IG VII, 570–572; Larsen 1938: 447); pre-R size 60 ha; R size 30 ha (J. Bintliff pers. comm.); mention of theatre, uncertain *odeion* (Paus. 9.22.2; Di Napoli 2013: appendix no. 33); Julio-Claudian and Nerva-Antonine coinage (Head 1911: 348; RPC I: lots 1313–1329; II: p. 66; III: lots 412–413; IV online; BCD *Boiotia*: lots 308–317); **Thebai**: (CPCI no. 221; Paus. 9.7.6; Symeonoglou 1985: 148–154; Farinetti 2011: 363–364); walled area 328 ha to protect the population not only of Thebes but also of the surrounding small cities; c. 130 ha of it should be occupied; in R times the city was concentrated in the *Kadmeia* (c. 30 ha); Moreover, Symeonoglou estimates the population of 4th c. BC Thebes in c. 23,000 but after the destruction of 335 BC Thebes shrank to <6,000 people; he estimates a further drop in R times, c. 3–4,000 people (Paus. 9.7.6; Symeonoglou 1985: 115 fig. 3.6, 118–120, 125, 148–154, 204; Farinetti 2011: 363–364; Papachatzis 1981: 93); R interventions in *agora* and theatre, mention of *stadion* (Paus. 9.11.7, 12.3, 16.6; Symeonoglou 1985: 137–139; Di Napoli 2013: 31–32); Flavian and Nerva-Antonine coinage (Head 1911: 348–349; RPC I: lots 1330–1337; BCD *Boiotia*: lots 587–590); **Thespiiai**: in *R civitas libera* (CPCI no. 222; Paus. 9.26.6–7; IG VII, 1836–1846; Larsen 1938: 447); pre-R size 74 ha; R size 34 ha (J. Bintliff pers. comm.); mention of *agora* and theatre (Paus. 9.27.5); Flavian coinage (Head 1911: 355; RPC II: lots 266–274; BCD *Boiotia*: lots 617–620); **Thisbe**: (CPCI no. 223; Gregory 1992: 19; Paus. 9.32.2; IG VII, 2227, 2233–2239); walled area c. 13 (Gregory 1992: 20 fig. 3.2); pre-R (and probably R) size 1–20 ha.

Classical-Hellenistic poleis abandoned, possibly abandoned or degraded in Roman times

Chorsiai: degraded in R (CPCI no. 202; Fossey 1988: 191–193; Farinetti 2011: 352 no. 14); 5 ha size suggestion (CPCI no. 202; Bintliff 1997: 244); **Erythrai**: abandoned in R (Paus. 9.2.1; CPCI no. 203; Fossey 1988: 116–118); **Eutresis**: degraded in R (CPCI no. 205; Strabo 9.2.28; Fossey 1988: 151–152; Farinetti 2011: 341–342); walled area c. 13 ha; pre-R size estimation 1–20 ha; **Haliartos**: destroyed by the Romans in the 2nd c. BC (CPCI no. 206; Paus. 9.33.3; Fossey 1979: 565; Farinetti 2011: 324); pre-R size 36 ha (J. Bintliff pers. comm.); **Hysiai**: possibly abandoned in R (CPCI no. 208; Paus. 9.2.1; Farinetti 2011: 360 no. 26; Fossey 1988: 113–114); **Oropos**: Athenian

dependency in R imperial times (*CPCI* no. 214; Paus. 1.34.1; Petrakos 1968: 43; Petrakos 1997: 344–376, 510–511 nos. 440–458); **Pharai**: (*CPCI* no. 215; Head 1911: 347; Fossey 1988: 96–99; Farinetti 2011: 214, 391–392 no. 73); **Siphai**: degraded in R (*CPCI* no. 218; Paus 9.32.4; Fossey 1988: 168–173; Farinetti 2011: 173–174); quite safe pre-R size 3 ha (*CPCI* no. 218).

Classical-Hellenistic secondary settlements (and sanctuaries) operative in Roman times

Alalkomenai: *polis* in the A period (*CPCI* no. 199; Paus. 9.33.5; Farinetti 2011: 266 no. 8; Fossey 1988: 332–335; Papachatzis 1981: 212–214); **Amphiareion**: (*CPCI* no. 214 p. 449; Paus. 1.34.2–5; Petrakos 1968: 70–72); **Askra**: (*CPCI* p. 433; Paus. 9.29.2; Farinetti 2011: 338 no. 11); **Aulis**: (*CPCI* p. 433; Strabo 9.2.8; Paus. 9.19.6–8; Fossey 1988: 68–74; Farinetti 2011: 214 n.19, 391 no. 67); **Delion**: (*CPCI* p. 433; Strabo 9.2.7; Paus. 9.20.1; Fossey 1988: 62–66; Farinetti 2011: 215, 392–394 nos. 77–86); **Eleutherai**: (*CPCI* p. 434; Paus. 1.38.9; Travlos 1988: 170–171; Papachatzis 1974: 482–485); **Glisas**: (*CPCI* p. 434; Strabo 9.2.31; Paus. 9.19.2; Fossey 1988: 217–223; Farinetti 2011: 372 no. 54); **Heleon**: (*CPCI* p. 434; Strabo 9.2.12; Fossey 1988: 89–95; Farinetti 2011: 214, 386 nos. 45–48); **Hyle**: (*CPCI* p. 434; Strabo 9.2.20 Fossey 1988: 235–243; Farinetti 2011: 369 nos. 35–37, 370 nos. 44–45); **Kreusis**: (*CPCI* pp. 434–435; Strabo 9.2.26; Paus. 9.32.1; Fossey 1988: 157–163; Farinetti 2011: 340 nos. 25–26); **Onchestos**: (*CPCI* 435; J. Bintliff pers. comm.); **Teumessos**: (*CPCI* p. 436; Strabo 9.2.24; Paus. 9.19.1; Fossey 1988: 212–216; Farinetti 2011: 372–373 no. 58).

Classical-Hellenistic secondary settlements abandoned, possibly abandoned or with no evidence in Roman times

Aspledon: (*CPCI* p. 433; Paus 9.38.9; Fossey 1988: 360–363; Farinetti 2011: 294–295 no. 9, 298–299); **Harma**: (*CPCI* p. 434; Strabo 9.2.11; Paus. 9.19.4; Fossey 1988: 85–89; Farinetti 2011: 387 nos. 52–53); **Isos**: (*CPCI* p. 434; Farinetti 2011: 377–378 no. 8); **Medeon**: (*CPCI* p. 435; Fossey 1979: 565; Fossey 1988: 312–314); **Mykalessos**: (*CPCI* no. 212; Paus. 9.19.4; Fossey 1988: 80–85; Farinetti 2011: 214 n. 22, 388 no. 55); **Schoinos**: (*CPCI* p. 435; Fossey 1988: 229–232); **Skolos**: (*CPCI* no. Strabo 9.2.23; Paus. 9.4.4; Fossey 1988: 122–123; Farinetti 2011: 356–358 nos. 8–14); **Tegyra**: (*CPCI* p. 436; Fossey 1988: 367–368; Farinetti 2011: 114–115, 296 no. 12).

EAST LOKRIS

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Alpenos: (*CPCI* no. 379; *TIR* J34: 83; Pascual 2013: 74–88); 1–20 ha size guestimate, based on the small territory; **Boumeliteia**: probably maintaining civic status in R (*CPCI* p. 665; *FD* III1, 362; J. Coleman pers. comm.; G. Zachos pers. comm.); **Halai**: (*CPCI* no. 380; Strabo 9.2.14; Paus. 9.24.5; Oldfather 1915: 322–339, no.10; J. Coleman pers. comm.; G. Zachos pers. comm.); **Larymna**: (*CPCI* no. 383; Paus. 9.23.7; Fossey 1990: 22–26; G. Zachos pers. comm.); 1–20 size guestimate, based on the small walled area c. 6 ha (*CPCI* no. 383); **Naryka**: (*CPCI* no. 384; *TIR* J34: 88; Pascual 2013: 176–182; Zachos 2013: 540–541; Jones 2006); 1–20 probable city size for both pre-R and R times (Pascual 2013: 179, 185, 198; *CPCI* no. 384; Jones 2006); **Nikaia**: (*CPCI* no. 385; Pascual 2013: 88–97); 1–20 size guestimate, based on the small territory and the historical context; **Opous**: (*CPCI* no. 386; *TIR* J34: 89–95; Fossey 1990: 68–74; Strabo 9.4.2; *IG* IX1, 283; Oldfather 1915: 333 no.13); the city shrank in R times; 20–40 size guestimate for the R town (*TIR* J34: 92; Dakoronia 2002: 81; *ADelt* 44, 1989, B1: 177; *ADelt* 42, 1987, B1: 224–225); uncertain aqueduct and public baths (Dakoronia 2002: 80); Julio-Claudian and Flavian coinage (Head 1911: 337; *RPC* I: lots 1338–1342; *BCD Lokris-Phokis*: lots 153–158); **Skarpheia**: (*CPCI* no. 387; *TIR* J34: 96–97; Zachos 2013: 543–544; Pascual 2013: 113–114); 20–40 ha size broadly for the GR-R town (Pascual 2013: 110; *TIR* J34: 97); **Thronion**: (*CPCI* no. 388; *TIR* J34: 98; *IG* IX1, 308–309; Strabo 9.4.4; Paus. 5.22.3; Pascual 2013: 135–144; Zachos 2013: 538–539).

Classical-Hellenistic *poleis* abandoned, possibly abandoned or degraded in Roman times

Alope: (*CPCI* no. 378; *TIR* J34: 83; Fossey 1990: 92; Zachos 2013: 539; G. Zachos pers. comm.); 1–20 size guestimate for the pre-R town, based on the small territory and the walled area, 12–13 ha (*CPCI* no. 380; Coleman *et al.* 1999: 310); **Knemis**: (*CPCI* no. 381; *TIR* J34: 85; Strabo 9.4.4; Pascual 2013: 172); 1–20 pre-R size guestimate, based on the small acropolis, c. 2 ha; **Kynos**: (*CPCI* no. 382; *TIR* J34: 85; Strabo 9.4.2; Paus. 10.1.2; Fossey 1990: 81–84; Dakoronia 1993: 116 fig. 1, 125–126; Dakoronia 2002: 80; G. Zachos pers. comm.).

Classical-Hellenistic secondary settlements abandoned, possibly abandoned or with no evidence in Roman times

Daphnous: (CPCI p. 666; TIR J34: 84; Strabo 9.3.1, 4.3; Papakonstantinou and Zachos 2013: 206–218).

DORIS

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Akyphas/Pindos, Boion, Erineos, Kytinion: (CPCI nos. 389–392; TIR J34: 74–76; Strabo 9.3.1, 4.10–11; Rousset 1994: 210–214, 219–221, 230–237, 363–368); 1–20 size guestimate for all the four cities (based on the small territories and the general context).

PHOKIS

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Abai: in *R civitas libera* (CPCI no. 169; TIR J34: 104–105; Paus. 10.35.2; Larsen 1938: 446; Yorke 1896: 304–305 no.1); 1–20 size guestimate for the pre-R city and possibly for the R one, based on the walled area c.16 ha (CPCI no. 169); mention of *agora* and theatre (Paus. 10.35.4); **Ambrossos:** (CPCI no. 171; TIR J34: 106–107; Paus. 10.36.3; IG IX1, 12, 17–19; Fossey 1986: 31, 101, 168); mention of *agora* (Paus. 10.36.4); **Amphikleia:** (CPCI no. 172; TIR J34: 107–108; IG IX1, 218; Paus. 10.33.9–11; Dassios 1992: 32–33 no. 12); **Antikyra:** (CPCI no. 173; TIR J34: 108–111; Paus. 10.36.5–6; IG IX1, 5–8; Fossey 1986: 24, 101, 167; Sideris 2014: 103–112); mention of *agora*, R public baths (Paus. 10.36.8–9; Sideris 2014: 104); Julio-Claudian, Flavian, Nerva-Antonine and Severan coinage (RPC III: lot 450; RPC IV online; Tsourti 2004: 124, 127; Sideris 2014: 110); **Boulis:** (CPCI no. 174; TIR J34: 112; Paus. 10.37.2–3; Dassios 1992: 65 no.70; McInerney 1999: 329); **Charadra:** (CPCI no. 175; TIR J34: 113; Paus. 10.22.6); 1–20 size guestimate, based on the small territory and the historical context; **Daulis:** (CPCI no. 176; TIR J34: 113–114; Paus. 10.4.7; IG IX1, 61; Fossey 1986: 46–49); 1–20 size guestimate for the R city, based on Pausanias' description and the small acropolis, 5 ha (CPCI no. 176; Dassios 1992: 55 no. 54; McInerney 1999: 297); **Delphi:** in *R civitas libera et immunis* (CPCI no. 177; TIR J34: 131–140; Larsen 1938: 447; Scott 2014: 215, 223, 230, 235; Weir 2004: 140–175; Paus. 10.8.6, 9.1; FD III4, 300, 301, 302, 313); pre-R and R size most probably 20–40 ha (P. Petridis pers. comm.; Petridis 2010: 26, 189 pl. 1; TIR J34: 143; Papachatzis 1981: 294–295); R *agora* and public baths, R interventions in theatre and *stadion* (Paus. 10.32.1–2; TIR J34: 143–153; Weir 2004: 95–97, 144–145; Scott 2014: 213, 226, 230, 238–240; Bommelaer 2015: 111–114, 235–237, 253–264; Di Napoli 2013: 29–31; Nielsen 1993: 33 C.265–266); Nerva-Antonine coinage (Head 1911: 342; BCD *Lokris-Phokis*: lots 391–411; RPC II: p. 67; III: lots 420–449; RPC IV online); **Drymaia:** (CPCI no. 178; TIR J34: 114; IG IX1, 226; Paus. 10.33.12; Dassios 1992: 28 no. 2; McInerney 1999: 272); walled area max. 20 ha; the city within the walls and thus 1–20 ha size for pre-R and R times (CPCI no. 178; Dassios 1992: 28 no. 2); **Elateia:** in *R civitas libera et immunis* (CPCI no. 180; TIR J34: 115–116; Paus. 10.34.2; IG IX1, 143–145; Larsen 1938: 447; Zachos 2013b: 118–122); pre-R size >37 ha (thus 40–80 ha); R size 37 ha (Zachos 2013b: 51, 108–109; G. Zachos pers. comm.); mention of *agora* and theatre (Paus. 10.34.6); **Hyampolis:** (CPCI no. 182; TIR J34: 117–118; Paus. 10.35.5–6; IG IX1, 86, 90; Yorke 1896: 306–308 nos. 2–4; Fossey 1986: 169); 1–20 size guestimate, based on the small acropolis and territory (CPCI no. 182; Dassios 1992: 48 no. 46; Fossey 1986: 72; McInerney 1999: 290); mention of *agora* and theatre (Paus. 10.35.6); **Lilaia:** (CPCI no. 185; TIR J34: 121–122; IG IX1, 233; Paus. 10.33.3); mention of *agora* and theatre, R public baths (Paus. 10.33.4); **Panopeus:** (CPCI no. 190; TIR J34: 123–124; Paus. 10.4.1); 1–20 pre-R size, based on the small walled area, c. 6 ha; R town apparently not larger than the pre-R (based on Pausanias' description); **Steiris:** (CPCI no. 193; TIR J34: 125–126; IG IX1, 47–48; Paus. 10.35.8–9); probable size for the pre-R and R town 1–20 ha (Paus. 10.35.9; Dassios 1992: 66–67 no. 75); **Tithorea:** (CPCI no. 187; TIR J34: 126–128; IG IX1, 200; Paus. 10.32.10); mention of *agora* and theatre (Paus. 10.33.10); **Tithronion:** (CPCI no. 194; TIR J34: 128; IG IX1, 224; Dassios 1992: 33 no. 14).

Classical-Hellenistic *poleis* abandoned, possibly abandoned or degraded in Roman times

Erochos: in H times a *sympoliteia* was made and Erochos was incorporated to Lilaia (CPCI no. 181 and 185; TIR J34:116; Dassios 1992: 32 nos. 10–11); **Kirrha:** (CPCI no. 183; TIR J34: 120–121; Paus. 10.37.4–5; Dassios 1992: 89–90 no. 128; McInerney 1999: 309–312); **Ledon:** polis till the 2nd c. BC (CPCI no. 184; Head 1911: 343; Paus. 10.33.1); **Medeon:** abandoned in R; *sympoliteia* of Steiris with Medeon, resulting to the abandonment of the latter (CPCI no. 186; TIR J34: 122–123; IG IX1, 32; Paus. 10.36.6; Fossey 1986: 29; Papachatzis 1981: 444–445 n. 2; Dassios 1992: 72–73 no. 90); **Phlygonion:** probably a H *sumpoliteia* between Ambossos and Phlygonion

resulted in the disappearance (or degradation) of Phlygonion (CPCI no. 191; Fossey 1986: 54–56, 99; Dassios 1992: 85 no. 113).

WEST LOKRIS

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Amphissa: in *R civitas libera et immunis* (CPCI no. 158; TIR J34: 157–161; Pliny NH, 4.8; Paus. 8.38.4; Larsen 1938: 446); R public baths (TIR J34: 158); **Chaleion:** (CPCI no. 159; TIR J34: 161–162; Pliny NH, 4.7; Larsen 1938: 447; Rizakis 1996: 279; Rizakis 1997: 19 ff.; Papachatzis 1981: 458–459); pre-R (and probably R) size 1–20 ha, based on the walled area, 8 ha; **Myania:** (CPCI no. 164; TIR J34: 165; Pliny NH, 4.8; Paus. 10.38.8–9; Larsen 1938: 447; Rizakis 1997: 20, 23, 26); pre-R (and probably R) size 1–20 ha, based on the walled area, 8 ha; **Naupaktos:** (CPCI no. 165; TIR J34: 165–170; Strabo 9.4.7; Paus. 10.38.10–13; Larsen 1938: 447; Petropoulos 1991: 104–105 fig. 1, 113–114 no. 43; Rizakis 1996: 279, 295; Rizakis 1997: 20–25; Rizakis 1998: 303–304 no. 369; Rizakis 2015); R public baths (TIR J34: 166–167); **Oiantheia:** (CPCI no. 166; TIR J34: 171; Pliny NH, 4.7; Paus. 10.38.9; Larsen 1938: 447; Rizakis 1997: 20, 23, 26); **Physkeis:** (CPCI p. 392; TIR J34: 172–173; Pliny NH, 4.7; Larsen 1938: 447; Lerat 1952: 110; Rizakis 1996: 279; Rizakis 1997: 19 ff.; Bommeljé and Doorn 1987: 94–95; Bommeljé and Vroom 1995: 91 no. 25); pre-R (and probably R) size 1–20 ha, based on the walled area, 15 ha (CPCI p. 392; Lerat 1952: 123–137, esp. 136); **Tolophon:** (CPCI no. 167; TIR J34: 173; Lerat 1952: 110; Bommeljé and Doorn 1987: 73; Bommeljé and Vroom 1995: 86–88 no. 2); pre-R (and probably R) size 1–20 ha (CPCI no. 167; Lerat 1952: 50–51, 138–144).

Classical-Hellenistic *poleis* with no evidence in Roman times

Triteia: (CPCI no. 168; TIR J34: 174); possible attestation of the city-ethnic in an inscription of imperial times from Delphi (FD III6, 123; Lerat 1952: 110).

Classical-Hellenistic secondary settlements operative in Roman times

Oineon: (CPCI p. 392; Bommeljé and Vroom 1995: 90 no. 20; Bommeljé and Doorn 1987: 89).

Classical-Hellenistic secondary settlements possibly abandoned in Roman times

Eupalion: (CPCI p. 392; TIR J34: 162).

AITOLIA

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Kallion/Kallipolis: (CPCI no. 147; TIR J34: 186–187; Bommeljé and Vroom 1995: 89–90 no.16; Bommeljé and Doorn 1987: 84–85); pre-R size c. 25 ha; R size <10 ha (Vroom 1993: 132, 134 figs. 9–10).

Classical-Hellenistic *poleis* abandoned, possibly abandoned or degraded in Roman times

Aggrinion: degraded in R (CPCI no. 142; TIR J34: 181; Bommeljé and Vroom 1995: 86 no.7, 91 no. 26; Bommeljé and Doorn 1987: 96 ‘*Megali chora*’; Petropoulos 1991: 101); **Aigition:** degraded in R (CPCI no. 143; TIR J34: 181–182; Bommeljé and Vroom 1995: 86 no. 8; Bommeljé and Doorn 1987: 75 ‘*Aigition A*’); **Chalkis:** abandoned in early R (CPCI no. 145; TIR J34: 183; Strabo 10.2.4; Bommeljé and Vroom 1995: 93 no. 39; Bommeljé and Doorn 1987: 112 ‘*Vasiliki Kato A*’; Petropoulos 1991: 111 no. 29); **Halikyryna:** degraded in R (CPCI no. 146; TIR J34: 185; Strabo 10.2.21; Bommeljé and Vroom 1995: 85 no. 5; Bommeljé and Doorn 1987: 74 ‘*Agios Symeon - Khilia Spitia*’; Petropoulos 1991: 102 no. 8); **Kalydon:** degraded in R (CPCI no. 148; TIR J34: 187–189; Strabo 10.2.3; Pliny NH, 4.2.6; Pausanias 7.18.8, 21.1; Vikatou and Saranti 2013: 8, 14, 16, 30–31; Dietz and Stavropoulou-Gatsi 2011: 79, 133, 155–156, 200, 208, 250, 269–270; Bommeljé and Vroom 1995: 90 no.18; Bommeljé and Doorn 1987: 86–87; Petropoulos 1991: 110–111 no. 27); pre-R size c. 30 ha (Dietz and Stavropoulou-Gatsi 2011: 79; Vikatou and Saranti 2013: 14–15); **Makynia:** possibly abandoned in R (CPCI no. 149; TIR J34: 163; Bommeljé and Vroom 1995: 94 no. 54; Bommeljé and Doorn 1987: 95 ‘*Mamako, Kato A*’; Petropoulos 1991: 111 no. 30); **Molykreion:** uncertain evidence for R (CPCI no. 150; TIR J34: 164; Bommeljé and Vroom 1995: 93 no. 40; Petropoulos 1991: 112 no. 38); **Pleuron:** degraded in R (CPCI no. 153; TIR J34: 192–193; Bommeljé and Doorn 1987: 104; Petropoulos 1991: 116 no. 53); pre-R size 1–20 ha, based on the walled area, 20 ha; **Trichoneion:** degraded in R (CPCI no. 156; Strabo 10.2.3; Paus. 2.37.3; Bommeljé and Vroom 1995: 89 no. 13; Bommeljé and Doorn 1987: 83 ‘*Gavalou*’; Petropoulos 1991: 107 no. 17; Stavropoulou-Gatsi 2011: 30–32).

Classical-Hellenistic secondary settlements operative in Roman times

Ithoria: (CPCI p. 381; TIR J34: 185; Bommeljé and Vroom 1995: 86 no. 3; Bommeljé and Doorn 1987: 74 'Ag. Ilias'; Petropoulos 1991: 101 no. 3); **Thermon:** (CPCI p. 381; TIR J34: 195–196; Bommeljé and Vroom 1995: 92 no. 37; Bommeljé and Doorn 1987: 109; Petropoulos 1991: 109 no. 25).

Classical-Hellenistic secondary settlements abandoned, possibly abandoned or with no evidence in Roman times

Krokyleion: (CPCI p. 381; Bommeljé and Doorn 1987: 82 'Filothei, Goumaioi'); **Oichalia:** CPCI p. 381; Bommeljé and Doorn 1987: 90 'Koryskhades'; **Paianion:** (CPCI p. 381; Bommeljé and Doorn 1987: 96 'Mastron A').

ACARNANIA

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Ambrakia: *perioikic* to Nikopolis in R (CPCI no. 113; Strabo 7.7.6; 10.2.2; CIG 2,1801; SEG 39, 1868; Murray 1982: 363; Lang 1994: 252–253; Büscher 1996; Riginos 2008: 14, 99; Karatzeni 2001: 168, 171; Karatzeni 1999; Tzouvara-Souli 1992: 23); walled area 130 ha (CPCI no. 113).

Classical-Hellenistic *poleis* abandoned, possibly abandoned or degraded in Roman times

Alyzeia: degraded in R; activity restricted to port? (CPCI no. 112; TIR J34: 202; Strabo 10.2.2; Pliny NH, 4.1.5; Petropoulos 1991: 103 no. 9; Murray 1982: 363–364, 367 n. 28; Lang 1994: 252–253); walled area 27 ha (CPCI no. 112; Lang 1994: 245); **Anaktorion:** possibly abandoned in R (CPCI no. 114; TIR J34: 203; Strabo 10.2.2; Petropoulos 1991; Lang 1994: 252–253); **Argos Amphilochikon:** scanty R evidence (CPCI no. 115; TIR J34: 203; Strabo 8.2.2.; Pliny NH, 4.1.5; Petropoulos 1991: 103–106 no. 11; Lang 1994: 252–253; Büscher 1996); 20–40 ha pre-R size guestimate, based on the walled area 30–40 ha (Lang 1994: 245; CPCI no. 115); **Astakos:** scanty R evidence (CPCI no. 116; TIR J34: 203–204; Strabo 10.2.21; Petropoulos 1991: 106 no. 14; Lang 1994: 252–253); walled area c. 30 ha (CPCI no. 116; Murray 1982: 68–73; Lang 1994: 245); **Derion:** no R evidence (CPCI no. 117; Petropoulos 1991: 104–105 pl. 1; Lang 1994: 252–253); 1–20 pre-R size guestimate, based on the small territory; **Echinon:** at best a secondary settlement in R (CPCI no. 118; Petropoulos 1991: 108 no. 22; Lang 1994: 252–253); 1–20 ha pre-R size guestimate, based on the small territory; **Euripos:** degraded in R (CPCI no. 119; TIR J34: 206; Petropoulos 1991: 116 no. 55; Lang 1994: 252–253); 1–20 pre-R size guestimate, based on the small territory; **Koronta:** degraded in R (CPCI no. 124; TIR J34: 206; Petropoulos 1991: 111 no. 33; Lang 1994: 252–253); 1–20 walled area (CPCI no. 124; Lang 1994: 245); **Limnaia:** degraded in R (CPCI no. 127; TIR J34: 207; Petropoulos 1991: 103 no.10; Lang 1994: 252–253); walled area c. 30 ha; **Medion:** probably abandoned in R (CPCI no. 129; Petropoulos 1991: 104–105; Lang 1994: 252–253); walled area c. 30; **Metropolis:** abandoned or limited activity in R (CPCI no. 128; TIR J34: 207; Lang 1994: 252–253; Petropoulos 1991: 104–105); walled area 20 ha; **Oiniadai:** degraded in R (CPCI no. 130; TIR J34: 208–209; Strabo 10.2.2; Petropoulos 1991: 114 no. 44; Lang 1994: 252–253); walled area 59 ha; **Palairos:** abandoned or limited activity in R (CPCI no. 131; TIR J34: 209–210; Strabo 10.2.2; Petropoulos 1991: 115 no. 47; Lang 1994: 252–253); walled area 30–40 ha; **Phoitiiai:** at best degraded in R (CPCI no. 134; TIR J34: 204; Petropoulos 1991: 117 no. 62; Lang 1994: 252–253); walled area 30–40 ha; **Stratos:** degraded in R (CPCI no. 138; TIR J34: 212–213; Strabo 10.2.2; Pliny NH, 4.1.5; Petropoulos 1991: 116–117 no. 59; Lang 1994: 252–253; Funke 2001: 192–193); walled area 80 ha; **Thyrreion:** allied city to Rome in the 1st c. BC, later annexed to Nikopolis; inhabited in R but essentially a village of Nikopolis (CPCI no. 139; TIR J34: 214; Petropoulos 1991: 109 no. 26; Larsen 1938: 446; Kahrstedt 1950: 557; Lang 1994: 252–253; Freitag 2001: 228); **Torybeia:** abandoned in R (CPCI no. 140; Petropoulos 1991: 104–105; Lang 1994: 252–253); walled area 30–40 ha.

Classical-Hellenistic secondary settlements operative in Roman times

Dioryktos: (CPCI p. 352; TIR J34: 205).

EPIRUS

New *poleis* foundations

Nikopolis: *Civitas foederata* (Larsen 1938: 446; Rizakis 1997; Chrystostomou and Kefallonitou 2001: 14; Calomino 2011: 30, 30–34; Zachos 2015); 150 ha (Zachos 2015: 87–100; Zachos *et al.* 2008: 88, 90–91); R *agora*,

theatre, *odeion*, *stadium*, aqueduct and public baths (Zachos 2015; Zachos *et al.* 2015; Zachos *et al.* 2015b; Zachos *et al.* 2008; Chrystostomou and Kefallonitou 2001; Lolos 1997: 304; Nielsen 1993: 34 no. 270); Julio-Claudian, Nerva-Antonine and Severan coinage (Calomino 2011; *RPC* I: lots 1363–1377; III: lots 466–584; IV online).

Classical-Hellenistic secondary settlements upgraded to *polis* status in Roman times

Hadrianopolis: (Gilkes 2013: 276–277; Perna and Çondi 2012: 244–251); R size 12–14 ha (Perna and Çondi 2012: 121); R *agora*, theatre and public baths (Gilkes 2013: 277–279; Perna and Çondi 2012: 113–118); **Photike:** Caesarean colony, perhaps re-founded under Augustus (*CPCI* p. 340; Samsaris 1994: 20–21; Karatzeni 2001: 170); 30–40 size guestimate by Samsaris (1994: 59).

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Bouthroton: R colony (*CPCI* no. 91; Larsen 1938: 446; Gilkes 2013: 97; Martin 2004: 85); pre-R size 10 ha, R size 27 ha (Martin 2004: 86; Metallinou 2008: 104); R *agora*, R interventions in theatre, R aqueduct and public baths (Gilkes 2013: 102–107, 112; Martin 2004: 87–88; Nielsen 1993: 43 C.353); Julio-Claudian coinage (*RPC* I: lots 1418–1419); **Dodone:** (*CPCI* no. 93; Strabo 7.7.9; Meyer 2013: 135 n. 445; Dakaris 1971b: 15; Cabanes 1997: 138); 1–20 pre-R (and probably R) size guestimate, based on the walled area; R interventions in theatre (Dakaris 1971b: 64–65; Dakaris 1993: 33); uncertain evidence for coinage (Head 1911: 325); **Orikon:** (*CPCI* no. 103; Gilkes 2013: 232–236); pre-R and R size 5–10 ha (*CPCI* no. 103; D. Donev pers. comm.); old data attest a small theatre or *odeion* of late H-early R date (Gilkes 2013: 235), but recent work interprets it as an exedra-shaped nymphaeum (Bereti *et al.* 2013: 165); **Phoinike:** (*CPCI* no. 107; Gilkes 2013: 177–183); pre-R size 57 ha (*CPCI* no. 107); R size ca. 35 ha (D. Donev pers. comm.); R repairs in pre-R theatre, R aqueduct and public baths (Gilkes 2013: 182–183); Julio-Claudian and Nerva-Antonine coinage (*RPC* I: lots 1418–1419; III: lots 585–597).

Classical-Hellenistic *poleis* abandoned, possibly abandoned or degraded in Roman times

Antigoneia: destroyed in the 2nd c. BC and re-inhabited only in LR times (Gilkes 2013: 32–38; Metallinou 2008: 103–104; Zachos *et al.* 2006: 390); walled area 35–45 ha (Zachos *et al.* 2006: 35; Gilkes 2013: 33); **Batiai:** degraded in R (*CPCI* no. 88; Strabo 7.7.5; Dakaris 1971: 91–92, 94, 100, 186–187, fig. 35); 1–20 pre-R size guestimate, based on the walled area, 10 ha; **Berenike:** degraded in R (*CPCI* no. 89; Dakaris 1971: 95, fig. 35; Hammond 1967: 688); **Bouchetion:** degraded in R (*CPCI* no. 90; Strabo 7.7.5; Dakaris 1971: 91–92, 94, 100, 182, fig. 35; Wiseman 2001: 46, 56); 1–20 ha size guestimate, based on the walled area, 4 ha; **Charadros:** no R evidence (*CPCI* p. 339); **Elateia:** degraded in R (*CPCI* no. 94; Strabo 7.7.5; Dakaris 1971: 173, 175); walled area 13 ha; 1–20 ha pre-R size guestimate; **Elea:** abandoned in early R (*CPCI* no. 95; Riginos and Lazari 2007: 21, 26; Metallinou 2008: 92 map 29; Samsaris 1994: 81–82); pre-R size 11 ha (Riginos and Lazari 2007: 25); **Ephyra:** degraded in R (*CPCI* no. 96; Strabo 7.7.5; Dakaris 1972: 199; Samsaris 1994: 106–107); walled area c. 5 ha; 1–20 ha size guestimate; **Eurymenai:** no R evidence (*CPCI* no. 97); walled area c. 35 ha; **Gitana:** degraded in R (*CPCI* no. 98; Metallinou 2008: 105–106, 92 map 29; Dakaris 1972: 115); walled area 28 ha; **Kassope:** abandoned in R (*CPCI* no. 100; Schwandner 2001; Dakaris 1986: 111; Gravani 2001: 117–118); walled area 30 ha; pre-R size c. 20 ha (*CPCI* no. 100; Schwandner 2001: 110 fig. 1); **Orraon:** abandoned in R (*CPCI* no. 99; Angeli 2005: 16, 30; Dakaris 1986: 111); walled area 7.2 ha; pre-R size guestimate 1–20 ha (Angeli 2005: 16, 20–21; Dakaris 1986: 115); **Pandosia:** uncertain R evidence; probably an active secondary settlement (*CPCI* no. 104; Strabo 7.7.5; Dakaris 1971: 92, 94, 169, fig. 35; Samsaris 1994: 107–108); **Passaron:** possibly abandoned in R (*CPCI* no. 105; Metallinou 2008: 70 map 24, 92 map 29 ‘*Gardiki*’); 9 ha (Dakaris 1986: 115); **Phanote:** degraded in R (*CPCI* no. 106; Metallinou 2008: 108–109; Samsaris 1994: 83–84); walled area 5 ha (*CPCI* no. 106); **Torone:** uncertain R evidence; probably a village-like site in R (*CPCI* no. 110; Dakaris 1972: 204; Samsaris 1994: 87–88); pre-R size c. 58 ha (Dakaris 1972: 115; *CPCI* no. 110).

New secondary foundations

Ladochori: (Metallinou 2008: 98–99); **Ormos Vathy:** port of Nikopolis, 22 ha in size (Stein 2001: 66–67 table 1).

Classical-Hellenistic secondary settlements operative or possibly operative in Roman times

Chimera: (*CPCI* p. 340; Pliny *NH*, 4.1.4); **Elaias/Glykys Limen:** (*CPCI* p. 340; Dakaris 1972: 134; Samsaris 1994: 105–106); **Elina:** (*CPCI* p. 340; Metallinou 2008: 107–108; Dakaris 1972: 206; Samsaris 1994: 104–105); **Euroia:** (Samsaris 1994: 108–109); **Ilion:** road station in R (*CPCI* p. 340); **Onchesmos:** port of Phoinike, especially

flourishing in ER; in LR times replaces Phoinike as the urban centre of the area (CPCI p. 340; Hodges 2006: 240–241; Gilkes 2013: 243–261); uncertain *odeion* (Gilkes 2013: 250–251).

Classical-Hellenistic secondary settlements with no evidence in Roman times

Helikranon: (CPCI p. 340).

IONIAN ISLANDS

Ithaka

Classical-Hellenistic *poleis* abandoned, possibly abandoned or degraded in Roman times

Ithaka: (CPCI no. 122; Livitsanis 2013); walled area 12 ha (CPCI no. 122); 1–20 size guestimate.

Kefalonia

New *poleis* foundations

Panormos: *Civitas libera* (Strabo 10.2.13; Larsen 1938: 447; Sotiriou 2013: 46–48; Andreatou 2013); 7 ha town size (Andreatou 2013: 71 fig. 1); R *agora*, *odeion* and uncertain public baths (Andreatou 2013: 71–79).

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Krane: in R *civitas libera* (CPCI no. 125; Strabo 10.2.13; Randsborg 2002: 36, 275–281; Larsen 1938: 447; Sotiriou 2013: 46 n. 101); uncertain evidence for coinage (Head 1911: 427; Randsborg 2002: 36); **Paleis:** in R *civitas libera* (CPCI no. 132; IG IX1.4, 1585; Strabo 10.2.13; Larsen 1938: 447); **Same:** in R *civitas libera* (CPCI no.136; Randsborg 2002: 281–283; IG IX1, 617; IG IX1.4, 1513; Strabo 10.2.13; Larsen 1938: 447); walled area 50 ha (Sotiriou 2013: 11 fig.17, 18 fig. 27; Randsborg 2002: 179–180, 264–275); 20–40 ha pre-R size guestimate; R aqueduct and public baths (Dellis 2013: 55; Nielsen 1993: 34 C.277; ADelt 42,1987, B1:165).

Classical-Hellenistic *poleis* degraded in Roman times

Pronnoi: (CPCI no. 135; Strabo 10.2.13; Randsborg 2002: 164, 200 fig. VIII.14).

Korkyra

Classical-Hellenistic *Poleis* operative or possibly operative in Roman times

Korkyra: in R *civitas libera* (CPCI no. 123; IG IX1.4, 808–814; IG IX1, 722–733; Strabo 7. fr.8; Larsen 1938: 447); R interventions in *agora*, uncertain *odeion*, R public baths (Preka-Alexandri 2010: 98–106; Nielsen 1993: 34 C.276); Nerva-Antonine and Severan coinage (Head 1911: 328; RPC I: p. 274; RPC IV online; Preka-Alexandri 2010: 74–75).

New secondary foundations

Kassiope: (Preka-Alexandri 2010: 68–71, 75).

Leukas

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Leukas: *perioikic polis* to Nikopolis in R (CPCI no. 126; Strabo 8.2.2; Lang 1994: 252–253; IG IX1, 540; Pliakou 2001: 152–153).

Zakynthos

Classical-Hellenistic *poleis* operative in Roman times

Zakynthos: in R *civitas libera* (CPCI no. 141; Larsen 1938: 447); Nerva-Antonine coinage (Head 1911: 430–431; RPC I: p. 263; IV online).

THESSALY AND ADJACENT AREAS

Classical-Hellenistic *poleis* operative or possibly operative in Roman times

Aiginion: (APTh: 47–48; Pikoulas 2009; IG IX2, 329; Strabo 7.7.9); **Antron:** (CPCI no. 433; Strabo 9.5.8; Papakonstantinou 1994: 229–231); **Argoussa:** possibly operative in R (CPCI no. 394; Strabo 9.5.19; Papakonstantinou 1994: 229–231); **Atrax:** (CPCI no. 395; Strabo 9.5.19–20; APTh: 55–57; Mottas and Decourt 1997: 354 fig. 17; Helly 2008: 203 fig. 7); walled area 64 ha (CPCI no. 395); **Azoros:** (CPCI no. 459; APTh: 222–224; Arvanitopoulos 1923: 146, 379; Strabo 7.7.9; IG IX2, 1292–1304); **Demetrias:** (Strabo 9.5.15; Triantafyllopoulou 2009: 342; Batziou-Efstathiou 2001: 9, 15; Karagiorgou 2001: 72; Lolos 2006: 171; Marzolff 1994: 65); walled area 440 ha, not filled with buildings in its entirety; the west sector of the walls enclosed steep hills and the acropolis; the southwest sector of the fortification, more or less the half of the walled area (see in Marzolff 1994: 61 fig. 5 ‘Demetrias II, D’; Batziou-Efstathiou 2001: 16 fig. 15), it was fortified more loosely in order to give the possibility for military camping and/or cultivation in case of a siege (Batziou-Efstathiou 2001: 17). In fact the southwest walled sector was completely abandoned in R ‘Demetrias III’ (Marzolff 1994: 66). By excluding the southwest sector, the walled area is c. the half, i.e. 120–150 ha, and if we exclude the west steep hills even less; indeed the habitation zone extended from the east slopes (where the theatre stands) and eastwards (Marzolff 1994: 63 fig. 8). This gives us max. 80 ha built-up area for the H city; Reinders (1988: 190–191) suggests 90 ha built up area. In fact, in the 2nd c. BC (Demetrias II), it was apparently visible that the huge walled area was impossible to be guarded sufficiently, and thus a new acropolis of 10 ha was constructed in the east and main side of the city, beside the *anaktoron* (Marzolff 1994: 65). In R times Demetrias shrank covering a built up area c. 35 ha (Strabo 9.5.15; Marzolff 1994: 65; Batziou-Efstathiou 2001: 15; Karagiorgou 2001: 72; Triantafyllopoulou 2009: 342); R interventions in theatre, uncertain aqueduct and R public baths (Batziou-Efstathiou 2001: 15, 34–36, 47–48; Karagiorgou 2001: 63; Triantafyllopoulou 2009: 343; Lolos 1997: 303); Julio-Claudian, Flavian, Nerva-Antonine and Severan coinage (*Koinon* of the Magnetes) (RPC I: lots 1421–1424; II: lots 275–276; III: lot 465; IV online; *BCD Thessaly*: lots 426.1–444); **Doliche:** (CPCI no. 461; APTh: 224; Arvanitopoulos 1923: 161 no. 3860; IG IX2, 1296); **Echinos:** (CPCI no. 429; TIR J34: 42–46; Kontoyianni-Zachou 1989: 209–217; Papakonstantinou 1994: 231–234); 1–20 ha size estimate (c. 12) for both pre-R and R town (Papakonstantinou 1994: 232 fig. 7; Karagiorgou 2001: 82); **Gomphoi:** (CPCI no. 396; APTh: 63–65; Strabo 9.5.17; IG IX2, 287a – 288; Karagiorgou 2001: 135–138); **Gonnoi:** (CPCI no. 463; Strabo 9.5.19; Helly 1973 vol. I: 123–130; vol. II: nos. 120–142, 144–146); 1–20 size guestimate for pre-R (and probably R) town, based on the walled area, c. 13 ha; Helly 1973 vol. I: carte I); **Herakleia:** (CPCI no. 430; TIR J34: 69–70; Strabo 9.4.13; IG IX2, 1); **Homolion:** possibly operative in R (CPCI no. 448; APTh: 194–200; Strabo 9.5.22); **Hypata:** (CPCI no. 420; TIR J34: 60–64; Larsen 1938: 479; CIL III, 586); c. 20 ha size estimate for pre-R and R town (Pantos 1994: 224 fig.2); **Kierion:** (CPCI no. 398; APTh: 71–77; Strabo 9.5.14; IG IX2, 261); **Krannon:** (CPCI no. 400; APTh: 111–115; Mottas and Decourt 1997: 333 n. 114, 354 fig. 17); **Lamia:** (CPCI no. 431; TIR J34: 46–51; Larsen 1938: 479; Strabo 9.5.13; IG IX2, 80–81; CIL III, 586); walled area 80 ha; built up size estimate for C-H town c. 50 ha; demographic decrease in R (CPCI no. 431; TIR J34: 46 and map 11; Papakonstantinou 2009: 8 fig. 3; Karagiorgou 2001: 94); R aqueduct (Lolos 1997: 305); **Larisa Kremaste:** (CPCI no. 437; TIR J34: 25–26; Strabo 9.5.13; Stamoudi 2008); Reinders (1988: 23 fig. 5) suggests 36 ha for the pre-R town; R size unknown; **Larissa:** (CPCI no. 401; IG IX2, 546, 609, 611, 619; Tziaphalias 1994: 157; Karagiorgou 2001: 32); walled area from 55 ha (APTh 107) to max. 120 ha (Tziaphalias 1994: 155 fig.1, 157, 178; Karagiorgou 2001: pl. 6a, 9, 11); it seems plausible that the pre-R city was c. 80 ha; in R times the city shrank (40–80 ha) (Karagiorgou 2001: 46; Tziaphalias 1994: 157); R interventions to the old theatre, R theatre, uncertain *odeion*, R public baths (Tziaphalias 1994: 160, 174–177; Tziaphalias 2006: 208–209; Karagiorgou 2001: 38); Julio-Claudian, Flavian and Nerva-Antonine coinage (Thessalian League) (Head 1911: 312; RPC I: lots 1425–1452; II: lots 277–290 ; III: lots 451–464; IV online); **Melitaia:** (CPCI no. 438; TIR J34: 26–29; APTh: 255; SEG 3, 466); Reinders (1988: 23 fig. 5) suggests 60–80 ha for the pre-R town; R size unknown; **Metropolis:** (CPCI no. 403; APTh: 59–62; IG IX2, 261; Strabo 9.5.17; Karagiorgou 2001: 124–126); R public baths (Karagiorgou 2001: 125); **Olooson:** (CPCI no. 467; APTh: 219; Strabo 9.5.19); **Proerna:** (CPCI no. 441; TIR J34: 34; APTh: 262–268; Papakonstantinou 1994: 236–237; Strabo 9.5.10); 20–40 ha size estimate for the C-H city; R size unknown (Papakonstantinou 1994: 236 fig.12); **Pythion:** (CPCI no. 469; APTh: 222; IG IX2, 1282–1283, 1288, 1290); **Thebai Phthiotides:** (CPCI no. 444; TIR J34: 32–33; Karagiorgou 2001: 52; Strabo 9.5.8,14); walled area 40 ha (APTh: 244–245; Adrymi-Sismani 2011: 49–66); 20–40 ha C-H size estimate; R size unknown; R interventions in theatre (TIR J34: 33; APTh: 244–245; Adrymi-Sismani 2011: 49–66); **Trikka:** (CPCI no. 417; APTh: 48–52; Strabo 9.5.17; Tziaphalias 1988; Karagiorgou 2001: 133).

Classical-Hellenistic *poleis* abandoned, degraded or with no evidence in Roman times

Angeia: no evidence for R (CPCI no. 418; *APTh*: 234); **Argethia:** abandoned in R (CPCI no. 470; *APTh*: 230; Chatziagelakis 1990); **Chyretiai:** no evidence for R (CPCI no. 460); **Ereikinion:** no evidence for R (CPCI no. 462); **Erythrai:** no R evidence, probably abandoned (CPCI p. 684; *TIR* J34: 60); **Eurymenai:** no evidence for R (CPCI no. 447; *APTh*: 201–204; Strabo 9.5.22); **Gyrtone:** no evidence for R (CPCI no. 397; Strabo 9.5.19); **Kasthaneia:** probably degraded in R (CPCI no. 450; *APTh*: 175–176; Strabo 9.5.22; Stählin 1924: 51–52); **Ktimene:** no evidence for R (CPCI no. 419; *APTh*: 234); **Kypairai:** no evidence for R (CPCI no. 436); **Malloia:** no evidence for R (CPCI no. 464); **Mondaia:** no evidence for R (CPCI no. 465); **Mopsion:** no evidence for R (CPCI no. 404; Strabo 9.5.22); **Mylai:** no evidence for R (CPCI no. 466); **Narthakion:** operative till the 2nd c. BC; uncertain evidence for imperial times (CPCI p. 687; *APTh*: 256; *TIR* J34: 29–30; *IG* IX2, 89; Zachou-Kontogianni 1994: 303–304); **New Halos:** abandoned in R (CPCI no. 435; *APTh*: 246–247; *TIR* J34: 23–24; Reinders 2006: 137; Reinders *et al.* 2014: 22–25); 40 ha H size (*APTh* 248; Reinders 1988: 190; Reinders *et al.* 2014: 33; Reinders and Prummel 2003: 32; Reinders 2006: 143); **Orthe:** no evidence for R (CPCI no. 405; *APTh*: 77); **Pelinna:** degraded in R (CPCI no. 409; Strabo 9.5.17; Tziaphalias 1992: 94); walled area 60–80 ha (CPCI no. 409; Tziaphalias 1992: 95, 126); pre-R size estimate 40–80 ha; **Pereia:** no evidence for R (CPCI p. 688; *APTh*: 255); **Peuma:** operative till the 2nd c. BC; uncertain evidence for imperial times; probably abandoned or with limited activity (CPCI no. 439; *TIR* J34: 31–32); 30–36 ha size suggestion for the pre-R town (Reinders 1988: 23 fig. 5; *TIR* J34: 31); **Phalanna:** no evidence for R (CPCI no. 468; Strabo 9.5.19); **Pharsalos:** possibly abandoned in R (CPCI no. 413; Karagiorgou 2001: 155, 157); walled area (including the acropolis) 90–110 ha; probable size for the pre-R town 40–80 ha (Katakouta and Touphexis 1994; Karapanou 2009; Karagiorgou 2001: pl. 159); **Phayttos:** operative in H, no evidence for R (CPCI p. 679; *IG* IX2, 489); **Pherai:** abandoned in R (CPCI no. 414; *APTh*: 120–123; Doulgeri-Intzesiloglou and Arachoviti 2008: 242); 82–120 ha walled area (CPCI no. 414); 40–80 ha size guestimate for the pre-R city; **Pteleon:** operative till the 2nd c. BC; no evidence for imperial times (CPCI p. 688; *TIR* J34: 34; Strabo 9.5.14); 1–20 ha size guestimate for the pre-R town, based on the map of Reinders (1988: 23 fig. 5); **Pyrasos:** destroyed in 217 BC by Philip V; in the 2nd c. AD reactivated; in late R times replaced inland Phthiotic Thebes (CPCI no. 442; *TIR* J34: 34–37; *APTh*: 238; Karagiorgou 2001: 52; Strabo 9.5.14); 1–20 ha size guestimate for the C-H city: at its peak in late R times it was c. 25 ha or slightly larger; Karagiorgou 2001: 62; *TIR* J34: 35 and map 10); **Skoutoussa:** no evidence for R (CPCI no. 415; *APTh*: 118; Strabo 9.5.20); **Thaumakoi:** operative till the 1st c. BC; uncertain evidence for imperial times; limited activity (CPCI no. 443; *TIR* J34: 38; Strabo 9.5.10); **Thetionion:** no evidence for R (CPCI no. 416; *APTh*: 86–87).

Classical-Hellenistic secondary settlements operative or possibly operative in Roman times

Condylus: (CPCI p. 690; Helly 1973: 46); **Iolkos:** (CPCI no. 449; Skafida 2009; Karagiorgou 2001: 65–71); **Kerkinion:** (CPCI p. 68); **Korope:** (CPCI p. 689; Papachatzis 1960); **Limnaion:** (CPCI p. 679; *APTh*: 82–83); **Olizon:** (CPCI no. 455; Strabo 9.5.15); **Olympias/Gonnocondylos:** (CPCI p. 690; Helly 1973: 44); **Palaipharsalos:** (CPCI p. 679; Strabo 9.5.6, 17.1.11; Decourt 1990: 194, 218–223); **Phalara:** (*TIR* J34: 52–54; Pantos 1994: 221; Stavroyiannis and Karantzali 2012, 1249); **Rhizous:** (CPCI no. 457; *APTh*: 204–206; Strabo 9.5.15); **Sepias:** (CPCI p. 689; Strabo 9.5.15); **Spalauthra:** (CPCI no. 458; *SEG* 23, 405).

Classical-Hellenistic secondary settlements abandoned, possibly abandoned or with no evidence in Roman times

Armenion: (CPCI p. 678); **Askiris:** (CPCI p. 690); **Eretria:** (CPCI p. 679; Strabo 9.5.10); **Goritsa/Methone:** (CPCI p. 689 and no. 454; *APTh*: 153–156; Helly 2006; Bakhuizen 1992: 313–314); **Homilai:** (CPCI p. 685; Béquignon 1937: 260–263); **Ithome:** (CPCI p. 679; *APTh*: 62–63; Strabo 9.5.17); **Leimone:** (CPCI p. 690); **Makra kome:** (CPCI p. 684); **Pharkadon:** (CPCI no. 412; Tziaphalias 1992; Strabo 9.5.17); **Phyllos:** (CPCI p. 680; Decourt 1990: 148–153, 174–180); **Sosthenis:** (CPCI p. 684); **Spercheiai:** (CPCI p. 684; Béquignon 1937: 313–315); **Sykyrion:** (CPCI p. 680).

References

- APTh Nikolaou, E. and S. Kravaritou (eds) 2012. *Αρχαίες πόλεις Θεσσαλίας & περίοικων περιοχών*, Larisa: Περιφερειακή Ένωση Δήμων Θεσσαλίας (Π.Ε.Δ.).
- BCD Boiotia Triton IX (10 January 2006).
- BCD Corinth Numismatik Lanz 105 (26 November 2001).
- BCD Euboea Numismatik Lanz 111 (25 November 2002).
- BCD Lokris-Phokis Numismatica Ars Classica NAC AG 55 (8 October 2010).
- BCD Peloponnesos LHS Numismatics 96 (8 May 2006).
- BCD Thessaly Triton XV (3 January 2012).
- CPCI Hansen, M.H. and Th. H. Nielsen 2004. *An inventory of Archaic and Classical Poleis*. Oxford: Oxford University Press.
- FD III1 Bourguet, É. 1929. *Fouilles de Delphes. Tome III, Épigraphie, Fascicule I: Inscriptions de l'entrée du sanctuaire au trésor des Athéniens*. Paris: E. De Boccard.
- FD III4 Colin, G. 1930. *Fouilles de Delphes. Tome III, Épigraphie, Fascicule IV: Inscriptions de la terrasse du temple et de la région nord du sanctuaire*. Paris: E. De Boccard.
- FD III6 Valmin, N. 1939. *Fouilles de Delphes. Tome III, Épigraphie, Fascicule VI: Les inscriptions du theatre*. Paris: E. De Boccard.
- RPC I Burnett, A., M. Amandry and P.P. Ripollès 1992. *Roman Provincial Coinage I.I. From the death of Caesar to the death of Vitellius (44 BC-AD 69)*. London and Paris: British Museum Press - Bibliothèque Nationale de France.
- RPC II Burnett, A., M. Amandry and I. Carradice 1999. *Roman Provincial Coinage II.I. From Vespasian to Domitian (AD 69-96)*. London and Paris: British Museum Press - Bibliothèque Nationale de France.
- TIR J34 Zachos, G. 2016. *Tabula Imperii Romani, J34-Athens. (Achaia Phthiotis-Malis-Aenis-Oitaia-Doris-Eurytania-East & West Lokris-Phokis-Aitolia-Akarnania)*. Athens: Academy of Athens.
- TIR J35.I Karvonis, P. and M. Mikedaki 2012. *Tabula Imperii Romani, J35-Smyrna I: Aegean islands*. Athens: Academy of Athens.
- Adam, J.P. 1982. *L'architecture militaire grecque*. Paris: Picard.
- Adrymi-Sismani, V. (ed.) 2011. *Αρχαία θέατρα στη Θεσσαλία*. Athens: Διάζωμα.
- Alcock, S. 1991. Urban survey and the polis of Phlius. *Hesperia* 60: 421-463.
- Alcock, S. 1993. *Graecia Capta. The landscapes of Roman Greece*. Cambridge: Cambridge University Press.
- Alcock, S. 2008. Liberation and conquest: Hellenistic and Roman Messenia, in J.L. Davis (ed.) *Sandy Pylos. An archaeological history from Nestor to Navarino*: 179-191. Princeton: The American School of Classical Studies at Athens.
- Andreatou, M. 2013. Fiskardo in the Roman and the Late Roman periods, in G. J. van Wijngaarden and A. Soririou (eds) *Archaeology in the Southern Ionian Islands. Proceedings of the workshop held at the Netherlands Institute at Athens, 30 October 2009* (Pharos 19.1): 69-94. Leuven: Peters.
- Andreou, E. and I. Andreou. 2010. *Elis. The city of the Olympic games*. Athens: Hellenic Ministry of Culture.
- Angeli, A. 2005. *Orraon: A brief guide of the archaeological site*. Ioannina: Hellenic Ministry of Culture.
- Arvanitopoulos, A. 1923. Θεσσαλικά επιγραφαί. *Αρχαιολογική Εφημερίς*: 123-162.
- Aslanidis, K. 2003. The Roman odeion at Epidauros. *Journal of Roman Archaeology* 16: 300-311.
- Bakhuizen, S. 1985. *Studies in the topography of Chalkis on Euboea (a discussion of the sources)*. Leiden: Brill.
- Bakhuizen, S. 1992. *A Greek city of the fourth century B.C.* Rome: L'Erma di Bretschneider.
- Banaka-Dimaki, A., A. Panayotopoulou and A. Oikonomou-Laniado. 1998. Το Άργος κατά τη ρωμαϊκή και την παλαιοχριστιανική περίοδο: σύνθεση των αρχαιολογικών δεδομένων, in A. Pariente and G. Touchais (eds) *Argos et l'Argolide. Topographie et urbanisme*: 327-336. Athens: Hellenic Ministry of Culture - École Française d'Athènes.
- Batzou-Eustathiou, A. 2001. *Δημητριάς*. Athens: Hellenic Ministry of Culture.
- Bekker-Nielsen, T. 1989. *The geography of power* (British Archaeological Reports International Series 477). Oxford: BAR.
- Benson, E.F. 1895. Aigosthena. *Journal of Hellenic Studies* 15: 314-324.
- Béquignon, Y. 1937. *La vallée du Spercheios des origines au IV^e siècle. Études d'archéologie et de topographie*. Paris: E. de Boccard.
- Bereti, V., G. Consagra, J.-P. Descoeudres, S. Shpuza and Ch. Zindel 2013. *Orikos-Oricum. Final report*

- on the Albano-Swiss excavations, 2007–2010. *Mediterranean Archaeology* 26: 95–185.
- Biers, J. 2003. *Lavari est vivere*. Baths in Roman Corinth, in Ch. Williams and N. Bookidis (eds) *Corinth, The centenary 1896–1996 (Corinth XX)*: 303–319. Princeton: The American School of Classical Studies at Athens.
- Bintliff, J. 1994. Territorial behaviour and the natural history of the Greek polis, in E. Olshausen and H. Sonnabend (eds) *Stuttgarter Kolloquium zur Historischen Geographie des Altertums* 4: 207–249. Amsterdam: Adolf M. Hakkert.
- Bintliff, J. 1997. Further considerations on the population of ancient Boeotia, in J. Bintliff (ed.) *Recent Developments in the History and Archaeology of Central Greece: Proceedings of the 6th International Boeotian Conference* (British Archaeological Reports International Series 666): 231–252. Oxford: Archaeopress.
- Bintliff, J. 2002. Going to market in antiquity, in E. Olshausen and H. Sonnabend (eds) *Zu Wasser und zu Land, Stuttgarter Kolloquium* 7: 209–250. Stuttgart: Franz Steiner.
- Bintliff, J. 2012. *The complete archaeology of Greece. From hunter-gatherers to the 20th century A.D.* Oxford: Wiley-Blackwell.
- Bintliff, J., B. Slapsak, B. Noordervliet, J. Van Zwienen, K. Wilkinson and R. Shiel. 2008. The Leiden-Ljubljana ancient cities of Boeotia project 2008 season. *Pharos* 16: 31–60.
- Bommelaer, J.F. 2015. *Guide de Delphes. Le site (Sites et monuments 7)*. Athens: École Françaises d'Athènes.
- Bommeljé, S. and P. Doorn (eds) 1987. *Aetolia and the Aetolians. Towards the interdisciplinary study of a Greek region*. Utrecht: Parnassus Press.
- Bommeljé, S. and J. Vroom. 1995. 'Deserted and untitled lands': Aetolia in Roman times. *Pharos* 3: 67–130.
- Bowden, H. and D. Gill. 1997. Roman Methana, in Ch. Mee and H. Forbes (eds) *A rough and rocky place. The landscape and settlement of the Methana peninsula, Greece*: 77–83. Liverpool: Liverpool University Press.
- Büscher, P. 1996. Die Gründung von Nikopolis und die Umstrukturierung Akarnaniens, in P. Berkold, J. Schmid and Ch. Wacker (eds) *Akarnanien. Eine Landschaft im antiken Griechenland*: 145–148. Würzburg: Ergon Verlag.
- Cabanes, P. 1997. Από τη ρωμαϊκή κατάκτηση ως την μεγάλη κρίση του 3ου αι. μ.Χ., in M. Sakellariou (ed.) *Ἡπειρος. 4000 χρόνια ελληνικής ιστορίας και πολιτισμού*: 114–139. Athens: Εκδοτική Αθηνών.
- Calomino, D. 2011. *Nicopolis d'Epiro. Nuovi studi sulla zecca e sulla produzione monetale* (British Archaeological Reports International Series 2214). Oxford: Archaeopress.
- Camp, J.M. 2001. *The archaeology of Athens*. New Haven and London: Yale University Press.
- Cartledge, P. and A. Spawforth. 1989. *Hellenistic and Roman Sparta. A tale of two cities*. London and New York: Routledge.
- Chatziagelakis, L. 1990. Αθαμανία - Αργιθέα (Κνίσοβο). *Αρχαιολογία* 34: 76–84.
- Chatzidimitriou, A. 2000. *Αλιβέρι. Συμβολή στην αρχαιολογική έρευνα της περιοχής*. Athens: Κύλινδρος.
- Cherry, J.F., J.L. Davis and E. Mantzourani 1991. *Landscape archaeology as long-term history. Northern Keos in the Cycladic islands from earliest settlement until modern times*. Los Angeles: UCLA Institute of Archaeology.
- Chidiroglou, M. 2012. Η αρχαία Καρυστία. Συμβολή στην ιστορία και αρχαιολογία της περιοχής από τη γεωμετρική έως και την αυτοκρατορική εποχή. Unpublished PhD dissertation, University of Athens.
- Chrystostomou, P. and F. Kefallonitou. 2001. *Νικόπολις*. Athens: Hellenic Ministry of Athens.
- Coleman, J.E. 1986. *Excavations at Pylos in Elis (Hesperia Suppl. 21)*. Princeton: The American School of Classical Studies at Athens.
- Coleman, J.E., P.S. Wren and K.M. Quinn 1999. Halai. The 1992–1994 field seasons. *Hesperia* 68: 285–341.
- Cooper, F. and W. Myers. 1981. Reconnaissance of a Greek mountain city. *Journal of Field Archaeology* 8: 123–134.
- Dakaris, S. 1971. *Cassopaia and the Elean colonies (Ancient Greek Cities 4)*. Athens: Athens Center of Ekistics.
- Dakaris, S. 1971b. Οδηγός αρχαιολογικού χώρου Δωδώνης. Ioannina: Σύλλογος πνευματικής κινήσεως 'Αρχαία Δωδώνη.'
- Dakaris, S. 1972. Θεσπρωτία (Ancient Greek Cities 15). Athens: Athens Center of Ekistics.
- Dakaris, S. 1986. Το Ορράον. Το σπίτι στην αρχαία Ἡπειρο. *Αρχαιολογική Εφημερίς*: 108–146.
- Dakaris, S. 1993. *Dodona*. Athens: Hellenic Ministry of Culture.
- Dakoronia, F. 1993. Homeric towns in east Lokris. Problems of identification. *Hesperia* 62: 115–127.
- Dakoronia, F. 2002. Ανατολική Λοκρίδα. Η ιστορία της μέσα από τα μνημεία και τις αρχαιολογικές έρευνες, in *Λοκρίδα. Ιστορία και Πολιτισμός*: 17–95. Athens: Κτήμα Χατζημιχάλη.
- Dassios, Ph. 1992. Συμβολή στη τοπογραφία της αρχαίας Φωκίδας. *Φωκικά Χρονικά* 4: 18–97.
- Decourt, J. Cl. 1990. *La vallée de l'Énipeus en Thessalie. Études de topographie et de Géographie antique (BCH Suppl. 21)*. Paris: École française d'Athènes.
- De Ligt, L. 1990. Demand, supply, distribution: the Roman peasantry between town and countryside, I. *Münsterische Beiträge zur antiken Handelsgeschichte* 9.2: 24–56.

- De Ligt, L. 2012. *Peasants, citizens and soldiers. Studies in the demographic history of Roman Italy 225 BC-AD 100*. Cambridge: Cambridge University Press.
- De Ligt, L. 2016. Urban systems and the political and economic structures of early-imperial Italy. *Rivista di Storia Economica* a.32.1: 17–71.
- Dellis, A. 2013. Same during the Roman period, in G. J. van Wijngaarden and A. Soririou (eds) *Archaeology in the Southern Ionian islands. Proceedings of the workshop held at the Netherlands Institute at Athens, 30 October 2009* (Pharos 19.1): 51–68. Leuven: Peteers.
- Dietz, S. and M. Stavropoulou-Gatsi (eds) 2011. *Kalydon in Aitolia I. Reports and studies* (Monographs of the Danish Institute at Athens 12.1). Aarhus: The Danish Institute at Athens.
- Di Napoli, V. 2013. *Teatri della Grecia Romana: forma, decorazione, funzioni. La provincia d'Achaia* (MEΛΕΤΗΜΑΤΑ 67). Athens: National Hellenic Research Foundation.
- Dittemberger, W. and K. Purgold. 1896. *Die Inschriften von Olympia*. Berlin: A. Asher & Co.
- Donati, J. 2017. Town-planning in the Peloponnese: new evidence from remote sensing and geophysical surveys at Elis, Heraia and Mantinea (paper, Finnish Institute at Athens 2017).
- Donati, J. and A. Sarris. 2016. Evidence for two planned Greek settlements in the Peloponnese from satellite remote sensing. *American Journal of Archaeology* 120.3: 361–398.
- Doulgeri-Intzesiloglou, A. and P. Arachoviti. 2008. Η αρχαία πόλη των Φερών: Πορίσματα ερευνών της τελευταίας εικοσιπενταετίας (1980–2005), in *1st International congress on the history and culture of Thessaly, Congress Proceedings*: 233–243. Athens: Αλέξανδρος.
- Ducrey, P., I.R. Metzger and K. Reber. 1993. *Le Quartier de la Maison aus mosaïques* (Eretria 8). Lausanne: École Suisse d'Archeologie en Grèce - Editions Payot.
- Eickstedt, K.V. 1991. *Beiträge zur Topographie des antiken Piräus*. Athens: The Archaeological Society at Athens.
- Eleutheratou, St. 2008. Στοιχεία πολεοδομικής και οικιστικής οργάνωσης από το νότιο τμήμα της αρχαίας Αθήνας, in St. Vlizos (ed.) *Athens during the Roman period. Recent discoveries, new evidence* (Benaki Museum Supplement 3): 185–205. Athens: Benaki Museum.
- Eliot, C.W.J. 1962. *Coastal demes of Attica. A study of the policy of Kleisthenes*. Toronto: University of Toronto Press.
- Fachard, S. 2012. *La défense du territoire étude de la chôra Érétrienne et de ses fortifications* (Eretria 21). Gollion: École Suisse d'Archeologie en Grèce - Infolio.
- Farinetti, E. 2011. *Boeotian landscapes. A GIS-based study for the reconstruction and interpretation of the archaeological datasets of ancient Boeotia* (British Archaeological Reports International Series 2195). Oxford: Archaeopress.
- Forsén, J. and B. Forsén. 2003. *The Asea valley survey. An Arcadian mountain valley from the Palaeolithic period until modern times* (Acta Instituti Atheniensis Regni Suetiae 40 51). Stockholm: Paul Åströms Förlag.
- Fossey, J.M. 1979. The cities of the Kopais in the Roman period, in H. Temporini (ed.) *Aufstieg und Niedergang der Römischen Welt, II, Principat 7.1*: 549–591. Berlin and New York: Walter de Gruyter.
- Fossey, J.M. 1986. *The ancient topography of eastern Phokis*. Amsterdam: Gieben.
- Fossey, J.M. 1988. *Topography and population of ancient Boiotia*. Chicago: Ares.
- Fossey, J.M. 1990. *The ancient topography of Opountian Lokris*. Amsterdam: Gieben.
- Fougères, G. 1898. *Mantinee et l'Arcadie orientale*. Paris: A. Fontemoing.
- Freitag, K. 2001. Some news about inscriptions from Northwestern Greece: Preliminary remarks on recent epigraphical work in the museums of Thyrion and Agrinion, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism* (Monographs of the Danish Institute at Athens 3): 223–231. Aarhus: The Danish Institute at Athens.
- Fritzilas, S. 2015. Aspects of monumental topography of Megalopolis during the Roman period, in *What's new in Roman Greece, international conference*, Athens 8–10 October: 43 (abstract).
- Funke, P. 2001. Acheloos' homeland. New historical-archaeological research on the ancient Polis Stratos, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism* (Monographs of the Danish Institute at Athens 3): 189–203. Aarhus: The Danish Institute at Athens.
- Geagan, D.J. 1979. Roman Athens: Some aspects of life and culture. I. 86 B.C. - A.D. 267, in H. Temporini (ed.) *Aufstieg und Niedergang der Römischen Welt, II, Principat 7.1*: 371–437. Berlin and New York: Walter de Gruyter.
- Giannakopoulos, N. 2012. *Θεσμοί και λειτουργία των πόλεων της Εύβοιας κατά τους ελληνιστικούς και τους αυτοκρατορικούς χρόνους* (Πηγές και μελέτες ιστορίας ελληνικού και ρωμαϊκού δικαίου 7). Thessaloniki: University Studio Press.

- Giannakopoulos, G. and K. Kissas 2013. Tenea, in K. Kissas (ed.) *Ancient Corinthia. From prehistoric times to the end of antiquity*: 75–83. Athens: Foinikas Publications.
- Gilkes, O. 2013. *Albania. An archaeological guide*. London-New York: I.B. Tauris.
- Gill, D., L. Foxhall and H. Bowden 1997. Classical and Hellenistic Methana, in Ch. Mee and H. Forbes (eds) *A rough and rocky place. The landscape and settlement history of the Methana peninsula, Greece*: 62–76. Liverpool: Liverpool University Press.
- Gravani, K. 2001. Archaeological evidence from Cassope. The local workshops of mould-made bowls, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism*, (Monographs of the Danish Institute at Athens 3): 117–145. Aarhus: The Danish Institute at Athens.
- Gregory, T. 1979. Roman inscriptions from Aidepsos. *Greek Roman and Byzantine Studies* 20: 255–277.
- Gregory, T. 1992. Archaeological explorations in the Thisbe basin, in J.M. Fossey and J. Morin (eds) *Boeotia Antiqua II. Papers on recent work in Boiotian archaeology and epigraphy*: 17–34. Amsterdam: Gieben.
- Gregory, T. and L. Tzortzopoulou-Gregory 2015. *The archaeology of Kythera*. Sydney: Meditarch Publications.
- Grigoropoulos, D. 2005. After Sulla: study in the settlement and material culture of the Piraeus peninsula in the Roman and Late Roman period. Unpublished PhD dissertation, University of Durham.
- Grigoropoulos, D. 2009. The population of the Piraeus in the Roman period: a re-assessment of the evidence of funerary inscriptions. *Greece & Rome* 56.2: 164–182.
- Grigoropoulos, D. 2016. The Piraeus from 86 BC to late Antiquity. Continuity and change in the landscape, function and economy of the port of Roman Athens. *Annual of the British School at Athens* 111: 1–30.
- Hammond, N. 1967. *Epirus: The geography, the ancient remains, the history and the topography of Epirus and the adjacent areas*. Oxford: Clarendon Press.
- Hansen, M.H. 2006. *Polis. An introduction to the ancient Greek City-State*. Oxford: Oxford University Press.
- Hansen, M.H. and Th. H. Nielsen 2004. *An inventory of Archaic and Classical Poleis*. Oxford: Oxford University Press.
- Hanson, J.W. 2016. *An urban geography of the Roman world, 100 BC to AD 300*. Oxford: Archaeopress.
- Hasluck, F. 1907–08. Laconia. II. Topography. *Annual of the British School at Athens* 14: 161–182.
- Head, B.V. 1911. *Historia Numorum. A manual of Greek numismatics*. Oxford: Clarendon Press.
- Helly, B. 1973. *Gonnoi. Le cité et son histoire*. Amsterdam: Adolf M. Hakkert.
- Helly, B. 2006. Un nom antique pour Goritsa?, in Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας 3: 145–169. Volos: Hellenic Ministry of Culture – University of Thessaly.
- Helly, B. 2008. Éléments pour une histoire de la distribution des territoires en Thessalie de l'époque Néolithique à la fin de l'Antiquité, in *1st International congress on the history and culture of Thessaly, Congress Proceedings*: 195–205. Athens: Αλέξανδρος.
- Hodges, R. 2006. Sarandë, ancient Onchesmos, and 'the corrupting sea', in L. Bejko and R. Hodges (eds) *New directions in Albanian archaeology*: 223–241. Tirana: International Centre for Albanian Archaeology.
- Hodkinson, S. and H. Hodkinson 1981. Mantinea and the Mantinike: settlement and society in a Greek Polis. *Annual of the British School at Athens* 76: 239–296.
- Hoepfner, W. 2002–05. Der Stadtplan von Messene. *Athens Annals of Archaeology* 35–38: 223–228.
- Hope Simpson, R. 1957. Identifying a Mycenaean state. *Annual of the British School at Athens* 52: 231–259.
- Huxley, G. 1972. The history and topography of ancient Kythera, in J. Coldstream and G. Huxley (eds) *Kythera. Excavations conducted by the university of Pennsylvania museum and the British School at Athens*: 33–40. London: Faber.
- Jameson, M., C. Runnels and T. Van Andel 1994. *A Greek countryside. The southern Argolid from prehistory to the present day*. Stanford: Stanford University Press.
- Jones, Ch. 2006. A letter of Hadrian to Naryka (Eastern Locris). *Journal of Roman Archaeology* 19: 151–162.
- Jost, M. 1985. *Sanctuaires et cultes d'Arcadie* (Études Péloponnésiques 9). Paris: École française d'Athènes – J. Vrin.
- Jost, M. 1986. Thelpousa d'Arcadie en 1938–1939. *Bulletin de Correspondance Hellénique* 110: 633–645.
- Kahrstedt, U. 1950. Die Territorien von Patrai und Nikopolis in der Kaiserzeit. *Historia* 1: 549–561.
- Kahrstedt, U. 1954. *Das wirtschaftliche Gesicht Griechenlands in der Kaiserzeit*. Bern: A. Francke.
- Karagiorgou, O. 2001. Urbanism and economy in late antique Thessaly (3rd – 7th c. A.D.): the archaeological evidence. Unpublished PhD dissertation, University of Oxford.
- Karapanou, S. 2009. Σωστικές ανασκαφές στα Φάρσαλα. Στοιχεία για την οργάνωση του δημόσιου χώρου στην πόλη των ελληνιστικών

- χρόνων, in Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας 3: 405–418. Volos: Hellenic Ministry of Culture – University of Thessaly.
- Karatzeni, V. 1999. Ambracia during the Roman era, in P. Cabanes (ed.) *L'Illyrie méridionale et l'Épire dans l'Antiquité – III*: 241–257. Paris: E. de Boccard.
- Karatzeni, V. 2001. Epirus in the Roman era, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism* (Monographs of the Danish Institute at Athens 3): 163–179. Aarhus: The Danish Institute at Athens.
- Katakis, S. 2002. Τα γλυπτά των ρωμαϊκών χρόνων από το ιερό του Απόλλωνος Μαλεάτα και του Ασκληπιού. Athens: The Archaeological Society at Athens.
- Katakouta, St. and G. Touphexis. 1994. Τα τείχη της Φαρσάλου, in Θεσσαλία. Δεκαπέντε χρόνια αρχαιολογικής έρευνας, 1975–1990. Αποτελέσματα και προοπτικές, II: 189–200. Athens: Hellenic Ministry of Culture.
- Katsari, C. 2011. *The Roman monetary system. The Eastern Provinces from the first to the third century AD*. Cambridge: Cambridge University Press.
- Kellogg, D.L. 2013. *Marathon fighters and men of maple. Ancient Acharnai*. Oxford: Oxford University Press.
- Kennell, N. 1999. From Perioikoi to Poleis. The Laconian cities in the late Hellenistic period, in St. Hodkinson and A. Powell (eds) *Sparta. New perspectives*: 189–210. London: Duckworth – The Classical Press of Wales.
- Kirsten, E. 1956. *Die griechische Polis als historisch-geographisches Problem des Mittelmeerraumes* (Colloquium Geographicum 5). Bonn: F. Dümmler.
- Konecny, A., V. Aravantinos and R. Marchese 2013. *Plataiai. Archäologie und Geschichte einer boiotischen Polis* (Österreichisches Archäologisches Institut Sonderschriften Band 48). Wien: Österreichisches Archäologisches Institut.
- Konsolaki-Giannopoulou, E. 2003. Νέα ευρήματα από την αρχαία Τροιζήνα, in E. Konsolaki-Giannopoulou (ed.) *Αργοσαρωνικός: Πρακτικά 1ου Διεθνούς Συνεδρίου Ιστορίας και Αρχαιολογίας του Αργοσαρωνικού*, II: 127–158. Athens: Municipality of Poros.
- Kontoyianni-Zachou, M. 1989. Παρατηρήσεις σε απελευθερωτικές επιγραφές του Εχίνου. *Egnatia* 1 (ΕΕΦΣΑΠΘ 23): 209–217.
- Kourinou, E. 2000. Σπάρτη. Συμβολή στη μνημειακή τοπογραφία της. Athens: Horos.
- Kritzas, Ch. 1972. Νέα εκ της πόλεως Επιδαύρου, *Athens Annals of Archaeology* 5: 186–199.
- Lambrinoudakis, V. (ed.) 1999. *Το Ασκληπιείο της Επιδαύρου. Η έδρα του θεού γιατρού της αρχαιότητας. Η συντήρηση των μνημείων του*. Athens: Περιφέρεια Πελοποννήσου.
- Lampropoulou, A. 1991. Θέματα της ιστορικής γεωγραφίας του νομού Ηλείας κατά την παλαιοχριστιανική περίοδο, in A.D. Rizakis (ed.) *Αρχαία Αχαΐα και Ηλεία, ανακοινώσεις κατά το πρώτο διεθνές συμπόσιο* (ΜΕΛΕΤΗΜΑΤΑ 13): 283–291. Athens: National Hellenic Research Foundation.
- Lang, F. 1994. Veränderungen des Siedlungsbildes in Akarnanien von der klassisch-hellenistischen zur römischen Zeit. *Klio* 76: 239–254.
- Larsen, J.A.O. 1938. Roman Greece, in T. Frank (ed.) *An economic survey of ancient Rome*, IV: 259–498. Baltimore: The Johns Hopkins Press.
- Lauffer, S. 1986. *Kopais. Untersuchungen zur historischen Landeskunde Mittelgriechenlands I*. Frankfurt am Main, Bern and New York: Peter Lang.
- Lerat, L. 1952. *Les Locriens de l'Ouest*, II. Paris: E. de Boccard.
- Le Roy, Ch. 1961. Λακωνικά. *Bulletin de Correspondance Hellénique* 85: 206–235.
- Livitsanis, G. 2013. The archaeological work of the 35th Ephorate for Prehistoric and Classical Antiquities at Ithaca, in G.J. van Wijngaarden and A. Soririou (eds) *Archaeology in the Southern Ionian islands. Proceedings of the workshop held at the Netherlands Institute at Athens, 30 October 2009* (Pharos 19.1): 95–126. Leuven: Peeters.
- Lolos, Y. 1997. The hadrianic aqueduct of Corinth. *Hesperia* 66.2: 271–314.
- Lolos, Y. 2006. Δημητριάς στη Θεσσαλία και την Πελοπόννησο: Μια συγκριτική προσέγγιση, in Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας 1: 171–183. Volos: Hellenic Ministry of Culture – University of Thessaly.
- Lolos, Y. 2010. Ύδωρ βασιλεύς Ἀδριανός ἐσίγηγεν ἐκ Στυμφήλου: Το αδριάνειο υδραγωγείο της Κορίνθου και η μεταφορά του νερού στα ρωμαϊκά χρόνια. Athens: Piraeus Bank Group Cultural Foundation.
- Lolos, Y. 2011. Phliasia in antiquity, in St. Kourakou-Dragona (ed.) *Nemea. Beloved land of Zeus and Dionysos*: 21–33. Athens: Foinikas Publications.
- Lolos, Y. 2011b. *Land of Sikyon. Archaeology and history of a Greek city-state* (Hesperia Suppl. 39). Princeton: The American School of Classical Studies at Athens.
- Marchand, J. 2011. A brief history of Kleonai, in Kourakou-Dragona St. (ed.) *Nemea. Beloved land of Zeus and Dionysos*: 79–88. Athens: Foinikas.
- Marchetti, P. 2013. Argos: la ville en ses remparts, in D. Mulliez (ed.) *Sur les pas de Wilhelm Vollgraff. Cent ans d'activités archéologiques à Argos*: 315–334. Athens: École Française d'Athènes.
- Martin, R. 1947–48. Les enceintes de Gortys d'Arcadie. *Bulletin de Correspondance Hellénique* 71–72: 81–147.

- Martin, S. 2004. The topography of Butrint, in R. Hodges, W. Bowden and K. Lako (eds) *Byzantine Butrint. Excavations and surveys 1994-99*: 76-103. Oxford: Oxbow.
- Marzolf, P. 1994. Développement urbanistique de Démétrias, in Θεσσαλία. Δεκαπέντε χρόνια αρχαιολογικής έρευνας, 1975-1990. Αποτελέσματα και προοπτικές, II: 57-70. Athens: Hellenic Ministry of Culture.
- McDonald, W. and G. Rapp. (eds) 1972. *The Minnesota Messenia expedition. Reconstructing a Bronze Age regional environment*. Minneapolis: University of Minnesota Press.
- McInerney, J. 1999. *The folds of Parnassos. Land and ethnicity in ancient Phokis*. Austin: University of Texas Press.
- Mee, Ch., H. Bowden, L. Foxhall, D. Gill, Th. Koukoulis and G. Taylor 1997. Catalogue of sites, in Ch. Mee and H. Forbes (eds) *A rough and rocky place. The landscape and settlement history of the Methana peninsula, Greece*: 118-210. Liverpool: Liverpool University Press.
- Melfi, M. 2007. *I santuari di Asclepio in Grecia*. I. Rome: L'Erma di Bretschneider.
- Melfi, M. 2010. Rebuilding the myth of Asklepios at the sanctuary of Epidauros in the Roman period, in A.D. Rizakis and Cl. E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (ΜΕΛΕΤΗΜΑΤΑ 63): 329-339. Athens: National Hellenic Research Foundation.
- Metallinou, G. (ed.) 2008. *Ιστορικός και αρχαιολογικός άτλας Ελληνοαλβανικής μεθορίου*. Athens: Hellenic Ministry of Culture.
- Meyer, E. 1939. *Peloponnesische Wanderungen: Reisen und Forschungen zur antiken und mittelalterlichen Topographie von Arkadien und Achaia*. Zürich and Leipzig: M. Niehans.
- Meyer, E. 2013. *The inscriptions of Dodona and a new history of Molosia*. Stuttgart: Steiner.
- Miller, St. 2005. *Νεμέα. Μουσείο και αρχαιολογικός χώρος*. Athens: Hellenic Ministry of Culture.
- Miller, St. 2011. Ancient Nemea: wine and the games, in St. Kourakou-Dragona (ed.) *Nemea. Beloved land of Zeus and Dionysos*: 35-53. Athens: Foinikas Publications.
- Mitsopoulos-Leon, V. 2001. Lousoi nach Hundert Jahren, in V. Mitsopoulos-Leon (ed.) *Forschungen in der Peloponnes, Akten des Symposions anlässlich der Feier 100 Jahre Österreichisches Archäologisches Institut Athen* (Sonderschriften Band 38): 131-142. Athens: Österreichisches Archäologisches Institut.
- Mottas, F. and J. C. Decourt 1997. Voies et milliaires romains de Thessalie. *Bulletin de Correspondance Hellénique* 121.1: 311-354.
- Murray, W.M. 1982. The coastal sites of western Akarnania: a topographical historical survey. Unpublished PhD dissertation, University of Pennsylvania.
- Müth, S. 2007. *Eigene Wege. Topographie und Stadtplan von Messene in spätklassisch-hellenistischer Zeit*. Rahden: Verlag Marie Leidorf.
- Nielsen, I. 1993. *Thermae et Balnea. The architecture and cultural history of Roman public baths*, II. Aarhus: Aarhus University Press.
- Nielsen, Th. H. 2002. *Arcadia and its Poleis in the Archaic and Classical periods* (Hypomnemata 140). Göttingen: Vandenhoeck & Ruprecht.
- Nikolopoulos, V. 2004. *Αιδηψός*. Athens: Hellenic Ministry of Culture.
- Ober, J. 1985. *Fortress Attica: Defense of the Athenian land frontier, 404-322 B.C.* (Mnemosyne Supplement 84). Leiden: Brill.
- Oikonomides, M. 2008. Τα ανασκαφικά νομίσματα των Λουσών. Μια πρώτη προσέγγιση, in D. Zaphiropoulou (ed.) *Amicitiae gratia*, τόμος στη μνήμη της Αλκμήνης Σταυρίδη: 93-96. Athens: Hellenic Ministry of Culture.
- Oldfather, W.A. 1915. Inscriptions from Locris. *American Journal of Archaeology* 19: 320-339.
- Oliver, J.H. 1971. Epaminondas of Acraephia. *Greek Roman and Byzantine Studies* 12: 221-237.
- Orlandos, A. 1935 [1936]. Ανασκαφές στη Σικυώνα. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας*: 73-83.
- Orlandos, A. 1954 [1957]. Ανασκαφή της βασιλικής των Αιγοσθένων. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας*: 129-142.
- Orlandos, A. 1967-68. Η Αρκαδική Αλίφειρα και τα μνημεία της. Athens: The Archaeological Society at Athens.
- Osborne, R. 1985. *Demos, the discovery of Classical Attika*. Cambridge and New York: Cambridge University Press.
- Osborne, R. 1987. *Classical landscapes with figures. The ancient Greek city and its countryside*. London: G. Philip.
- Osborne, R. 2014. The long-term archaeology and history of Archaic and Classical Greece: unfulfilled promise?, in J. Bintliff (ed.) *Recent developments in the long-term archaeology of Greece* (Pharos Supplement): 195-219. Leuven: Peeters.
- Pantos, P. 1994. La vallée du Spercheios - Lamia exceptée - aux époques hellénistique et romaine. *Quinze années de recherches, 1975-1990*, in Θεσσαλία. Δεκαπέντε χρόνια αρχαιολογικής έρευνας, 1975-1990. Αποτελέσματα και προοπτικές, II: 221-228. Athens: Hellenic Ministry of Culture.
- Papachatzis, N. 1960. Η Κορόπη και το ιερό του Απόλλωνα. *Θεσσαλικά* 3: 3-24.

- Papachatzis, N. 1974. *Παυσανίου Ελλάδος περιήγησις. Αττικά*. Athens: Εκδοτική Αθηνών.
- Papachatzis, N. 1976. *Παυσανίου Ελλάδος περιήγησις. Κορινθιακά και Λακωνικά*. Athens: Εκδοτική Αθηνών.
- Papachatzis, N. 1979. *Παυσανίου Ελλάδος περιήγησις. Μεσσηνιακά και Ηλιακά*. Athens: Εκδοτική Αθηνών.
- Papachatzis, N. 1980. *Παυσανίου Ελλάδος περιήγησις. Αχαϊκά και Αρκαδικά*. Athens: Εκδοτική Αθηνών.
- Papachatzis, N. 1981. *Παυσανίου Ελλάδος περιήγησις. Βοιωτικά και Φωκικά*. Athens: Εκδοτική Αθηνών.
- Papakonstantinou, M.-F. 1994. Το νότιο και δυτικό τμήμα της Αχαΐας Φθιώτιδας από τους κλασσικούς μέχρι τους ρωμαϊκούς χρόνους, in *Θεσσαλία. Δεκαπέντε χρόνια αρχαιολογικής έρευνας, 1975-1990. Αποτελέσματα και προοπτικές, II*: 229-238. Athens: Hellenic Ministry of Culture.
- Papakonstantinou, M.-F. and G. Zachos 2013. The Dipotamos valley and the 'Phokian corridor', in J. Pascual and M.-F. Papakonstantinou (eds) *Topography and history of ancient Epicnemidian Locris* (Mnemosyne Suppl. 362): 201-224. Leiden and Boston: Brill.
- Papakosta, L. 1991. Παρατηρήσεις σχετικά με την τοπογραφία του αρχαίου Αιγίου, in A.D. Rizakis (ed.) *Αρχαία Αχαΐα και Ηλεία, ανακοινώσεις κατά το πρώτο διεθνές συμπόσιο (ΜΕΛΕΤΗΜΑΤΑ 13)*: 235-240. Athens: National Hellenic Research Foundation.
- Papandreou, G. 1920. Αρχαιολογικά και τοπογραφικά έρευναι εν τη επαρχία Καλαβρύτων. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας*: 95-146.
- Papapostolou, I. 1991. Θέματα τοπογραφίας και πολεοδομίας των Πατρών κατά τη Ρωμαϊκή περίοδο, in A.D. Rizakis (ed.) *Αρχαία Αχαΐα και Ηλεία, ανακοινώσεις κατά το πρώτο διεθνές συμπόσιο (ΜΕΛΕΤΗΜΑΤΑ 13)*: 305-316. Athens: National Hellenic Research Foundation.
- Pariante, A., M. Piérart and J. P. Thalmann 1998. Les recherches sur l'agora d'Argos: résultats et perspectives, in A. Pariante and G. Touchais (eds) *Argos et l'Argolide. Topographie et urbanisme (Recherches Franco-Helléniques 3)*: 211-231. Paris: Hellenic Ministry of Culture - École Française d'Athènes.
- Pascual, J. 2013. The ancient topography of the Epicnemidian Locris, in J. Pascual and M.-F. Papakonstantinou (eds) *Topography and history of ancient Epicnemidian Locris* (Mnemosyne Supplement 362): 65-199. Leiden and Boston: Brill.
- Perna, R. and D. Condi 2012. *Hadrianopolis II. Risultati delle indagini archeologiche 2005-2010*. Bari: Edipuglia.
- Perakos, V. 1997. *Οι επιγραφές του Ωρωπού*. Athens: The Archaeological Society at Athens.
- Petrakos, V. 1968. *Ο Ωρωπός και το ιερόν του Αμφιάραου*. Athens: The Archaeological Society at Athens.
- Petrakos, V. 1999. *Ο δήμος του Ραμνούντος, I. Τοπογραφία*. Athens: The Archaeological Society at Athens.
- Petridis, P. 2010. *La céramique protobyzantine de Delphes: une production et son context* (Fouilles de Delphes V, Monuments Figurés 4). Athens: École française d'Athènes.
- Petrocheilos, I. 1984. *Τα Κύθηρα από την προϊστορική εποχή ως την ρωμαιοκρατία*. Ioannina: University of Ioannina.
- Petronotis, A. 1973. *Η Μεγάλη Πόλις της Αρκαδίας (Ancient Greek Cities 23)*. Athens: Athens Center of Ekistics.
- Petronotis, A. 1973b. Νέο απόσπασμα του Διοκλητιανείου αγορανομικού κώδικα από τη Θέλπουσα της Αρκαδίας. *Ελληνικά* 26: 255-270.
- Petrutaki, M. 1996. Κλείτωρ: Μια πόλη της αρκαδικής Αζανίας. *Τέχνες και Αρχαιολογία* 61: 81-88.
- Petrutaki, M. 2001. Θέατρο Κλείτορος: Η αναδυόμενη εικόνα του μνημείου μέσα από τα πρώτα ανασκαφικά στοιχεία, in V. Mitsopoulos-Leon (ed.) *Forschungen in der Peloponnes, Akten des Symposions anlässlich der Feier 100 Jahre Österreichisches Archäologisches Institut Athen (Sonderschriften Band 38)*: 120-125. Athens: Österreichisches Archäologisches Institut.
- Petrutaki, M. 2005. Κλείτωρ. Η πόλη υπό το φως των ανασκαφών. Γενική θεώρηση ανασκαφικών δεδομένων, in E. Østby (ed.) *Ancient Arcadia. Papers from the third international seminar on ancient Arcadia, held at the Norwegian Institute at Athens* (Papers from the Norwegian Institute at Athens 8): 351-362. Athens: The Norwegian Institute at Athens.
- Petropoulos, M. 1991. Η Αιτωλοακαρνανία κατά τη ρωμαϊκή περίοδο, in *Proceedings of the 1st Archaeological and Historical Congress of Aitolia and Acarnania, Agrinio 21-23 Oct. 1988*: 93-125. Agrinio.
- Petropoulos, M. 2005. Έρευνες στην αρχαία Ψωφίδα, in E. Østby (ed.) *Ancient Arcadia. Papers from the third international seminar on ancient Arcadia, held at the Norwegian Institute at Athens* (Papers from the Norwegian Institute at Athens 8): 363-376. Athens: The Norwegian Institute at Athens.
- Petropoulos, M. 2009. Ρωμαϊκές παρεμβάσεις στο πολεοδομικό σχέδιο της Πάτρας, in *Patrasso colonia di Augusto e le trasformazioni culturali, politiche ed economiche della Provincia di Acaia agli inizi dell'età imperial romana (TRIPODES 8)*: 39-77. Athens: Scuola Archeologica Italiana di Atene.
- Philadelphus, A. 1931-32. Ανασκαφαί Ηραίας. *Αρχαιολογικόν Δελτίον* 14: 57-70.

- Picard, O. 1979. *Chalkis et la confederation Eubéenne. Étude de numismatique et d'Histoire (IVe – Ier siècle)*. Athens: École Française d'Athènes.
- Piérart, M. 2003. Genèse et développement d'une ville à l'ancienne: Argos, in M. Reddé, L. Dubois, D. Briquel, H. Lavagne and F. Queyrel (eds) *La naissance de la ville dans l'antiquité*: 49–70. Paris: E. de Boccard.
- Piérart, M. 2010. Argos romaine: la cité des Perséides, in A.D. Rizakis and Cl. E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (ΜΕΛΕΤΗΜΑΤΑ 63): 19–41. Athens: National Hellenic Research Foundation.
- Pikoulas, Y. 1983. Αλίφειρα, το προάστειον της άκρας. *Horos* 1: 45–55.
- Pikoulas, Y. 1986. Η Νώνακρϊς και ο εντοπισμός της, in Πρακτικά Β' τοπικού συνεδρίου Αρχαϊκών σπουδών: 313–318. Athens: Εταιρεία Πελοποννησιακών Σπουδών.
- Pikoulas, Y. 1986b. Ο αρχαίος οικισμός της Δημητσάνας. *Horos* 4: 99–123.
- Pikoulas, Y. 1988. Η νότια Μεγαλοπολίτικη χώρα από τον 8ο π.χ. ως τον 4ο μ.Χ. αιώνα. Συμβολή στην τοπογραφία της. Athens: Horos.
- Pikoulas, Y. 1990–91. Το Τορθύνειον της Αρκαδίας. *Horos* 8–9: 135–152.
- Pikoulas, Y. 1995. Οδικό δίκτυο και άμυνα. Από την Κόρινθο στο Άργος και την Αρκαδία. Athens: Horos.
- Pikoulas, Y. 1999. The road-network of Arcadia, in Th.-H. Nielsen and J. Roy (eds) *Defining ancient Arcadia* (Acts of the Copenhagen Polis Centre vol. 6): 248–319. Copenhagen: Kongelige Danske videnskabernes selskab.
- Pikoulas, Y. 2009. Από τη Φαλώρεια και το Αιγίνιον στην Τρίκκα. Τίτος Λίβιος και Β'Μακεδονικός πόλεμος. *Τρικαλινά* 29: 93–106.
- Piteros, Ch. 2013. Η ακρόπολη της Λάρισας και τα τείχη της πόλης του Άργους, in D. Mulliez (ed.) *Sur les pas de Wilhelm Vollgraff. Cent ans d'activités archéologiques à Argos*: 335–352. Athens: École Française d'Athènes.
- Platonos-Yiota, M. 2004. Αχαρναί. Ιστορική και τοπογραφική επισκόπηση των αρχαίων Αχαρνών, των γειτονικών δήμων και των οχυρώσεων της Πάρνηθας. Acharnai: Municipality of Acharnai.
- Pliakou, G. 2001. Leukas in the Roman period, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism* (Monographs of the Danish Institute at Athens 3): 147–161. Aarhus: The Danish Institute at Athens.
- Preka-Alexandri, K. 2010. Οι αρχαιότητες της Κέρκυρας. Athens: Hellenic Ministry of Culture.
- Pritchett, W.K. 1980. *Studies in ancient Greek Topography. Part III (Roads)*. Berkeley, Los Angeles and London: University of California Press.
- Pritchett, W.K. 1989. *Studies in ancient Greek Topography. Part VI*. Berkeley, Los Angeles and London: University of California Press.
- Pritchett, W.K. 1991. *Studies in ancient Greek Topography. Part VII*. Amsterdam: Gieben.
- 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.
- Randsborg, K. 2002. *Kephallénia. Archaeology & history. The ancient Greek cities, II* (Acta Archaeologica Supplement 4.2). Copenhagen: Blackwell – Munksgaard.
- Reber, K. (ed.) 1998. *Die klassische und hellenistischen Wohnhäuser im Westquartier* (Eretria 10). Lausanne: École Suisse d'Archeologie en Grèce – Editions Payot.
- Reinders, H.R. 1988. *New Halos. A Hellenistic town in Thessalia, Greece*. Utrecht: HES Publishers.
- Reinders, H.R. 2006. Enceinte, gates and communication lines of new Halos. A reconstruction, in Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας 1:137–144. Volos: Hellenic Ministry of Culture – University of Thessaly.
- Reinders, H.R. and W. Prummel (eds) 2003. *Housing in New Halos. A Hellenistic town in Thessaly, Greece*. Lisse: A.A. Balkema Publishers.
- Reinders, H.R., Ch. Dickenson, K. Kondoyanni, B. Lee, Z. Malakasioti, A.R. Meiwaard, E. Nikolaou, L. Radloff, V. Rondiri, Th.C. Rose and F. Tsiouka 2014. *The city of New Halos and its southeast gate* (Groningen Archaeological Studies 27). Groningen: Barkhuis Publishing and University of Groningen Library.
- Riginos, G. 2008. *Ambracia. Guidebook of the archaeological museum*. Athens: Hellenic Ministry of Culture.
- Riginos, G. and K. Lazari 2007. *Ελέα Θεσπρωτίας. Αρχαιολογικός οδηγός του χώρου και της ευρύτερης περιοχής*. Athens: Hellenic Ministry of Culture.
- Rizakis, A.D. 1993. Ο Αύγουστος, η νέα ρωμαϊκή τάξη και η αποικία της Πάτρας, in Τιμητικός τόμος Κ.Ν. Τριανταφύλλου: 765–771. Patras.
- Rizakis, A.D. 1995. *Achaie I. Sources textuelles et histoire regionale* (ΜΕΛΕΤΗΜΑΤΑ 20). Athens: National Hellenic Research Foundation.
- Rizakis, A.D. 1996. Les colonies Romaines des côtes occidentales Grecques. Populations et territoires. *Dialogues d'Histoire Ancienne* 22.1: 255–324.
- Rizakis, A.D. 1997. Roman colonies in the province of Achaia: Territories, land and population, in S. Alcock (ed.) *The early Roman empire in the East* (Oxbow Monograph 95): 15–36. Oxford: Oxbow.

- Rizakis, A.D. 1998. *Achaïe II. Le cité de Patras: Épigraphie et histoire* (MEΛETHMATA 25). Athens: National Hellenic Research Foundation.
- Rizakis, A.D. 2008. *Achaïe III. Les cités Achéennes: Épigraphie et histoire* (MEΛETHMATA 55). Athens: National Hellenic Research Foundation.
- Rizakis, A.D. 2010a. Peloponnesian cities under Roman rule: The new political geography and its economic and social repercussions, in A.D. Rizakis and Cl. E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (MEΛETHMATA 63): 1–18. Athens: National Hellenic Research Foundation.
- Rizakis, A.D. 2010b. Colonia Augusta Achaïca Patrensis. Réaménagements urbains, constructions édilitaires et la nouvelle identité Patréenne, in A.D. Rizakis and Cl. E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (MEΛETHMATA 63): 129–154. Athens: National Hellenic Research Foundation.
- Rizakis, A.D. 2014. Town and country in early Imperial Greece, in J. Bintliff (ed.) *Recent developments in the long-term archaeology of Greece* (Pharos Supplement): 241–267. Leuven: Peeters.
- Rizakis, A.D. 2015. Expropriations et confiscations des terres dans le cadre de la colonisation romaine en Achaïe et en Macédoine. *Mélanges de l'École française de Rome – Antiquité* 127.2: 469–485.
- Rizakis, A.D. and M. Petropoulos 2006. Ancient Patrai, in T.E. Sklavenitis and K.S. Staikos (eds) *Patras: from ancient times to the present*: 2–57. Athens: Kotinos.
- Romano, D.G. 2000. A tale of two cities: Roman colonies at Corinth, in E. Fentress (ed.) *Romanization and the city. Creation, transformations, and failures* (Journal of Roman Archaeology Supplement 38): 83–104. Portsmouth, Rhode Island: Journal of Roman Archaeology.
- Romano, D.G. 2003. City planning, centuriation, and land division in Roman Corinth, in Ch. Williams and N. Bookidis (eds) *Corinth, The centenary 1896–1996* (Corinth XX): 279–301. Princeton: The American School of Classical Studies at Athens.
- Romano, D.G. 2005. A Roman circus in Corinth. *Hesperia* 74.4: 585–611.
- Rousset, D. 1989. Les Doriens de la Métropole. Étude de topographie et de Géographie historique. *Bulletin de Correspondance Hellénique* 113: 199–239.
- Rousset, D. 1994. Les Doriens de la Métropole. Nouveaux documents. *Bulletin de Correspondance Hellénique* 118: 361–374.
- Roy, J. 1999. Les cités d'Élide, in J. Renard (ed.) *Le Péloponnèse. Archéologie et Histoire*: 151–176. Rennes: Presses Universitaires de Rennes.
- Roy, J. 2007. The urban layout of Megalopolis in its civic and confederate context, in R. Westgate, N. Fisher and J. Whitley (eds) *Building communities. House, settlement and society in the Aegean and beyond* (BSA Studies 15): 289–295. Exeter: British School at Athens.
- Roy, J. 2008. Elis in the later Hellenistic and early Roman imperial periods, in C. Grandjean (ed.) *Le Péloponnèse d'Épaminondas à Hadrien* (Ausonius Éditions Études 21): 263–270. Bordeaux: Ausonius.
- Roy, J. 2008b. Interaction of large and small communities in Arcadia in the Archaic, Classical, Hellenistic and Roman periods, in C. Gallou, M. Georgiadis and G.M. Muskett (eds) *Dioskouroi. Studies presented to W.G. Canavagh and C.B. Mee on the anniversary of their 30-year joint contribution to Aegean Archaeology* (British Archaeological Reports International Series 1889): 176–183. Oxford: Archaeopress.
- Roy, J. 2010. Roman Arcadia, in A.D. Rizakis and Cl. E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (MEΛETHMATA 63): 59–73. Athens: National Hellenic Research Foundation.
- Roy, J., J.A. Lloyd and E.J. Owens 1989. Megalopolis under the Roman empire, in S. Walker and A. Cameron (eds) *The Greek Renaissance in the Roman empire* (BICS Supplement 55): 146–150. London: University of London, Institute of Classical Studies.
- Sackett, L.H., V. Hankey, R.J. Howell, T.W. Jacobsen and M.R. Popham 1966. Prehistoric Euboea: Contributions toward a survey. *Annual of the British School at Athens* 61: 33–112.
- Sakellariou, M. and N. Faraklas 1971. *Corinthia-Cleonaea* (Ancient Greek Cities 3). Athens: Athens Center of Ekistics.
- Sakellariou, M. and N. Faraklas 1972. *Μεγαρίς, Αιγόσθενα, Ερένεια* (Ancient Greek Cities 14). Athens: Athens Center of Ekistics.
- Sampson, A. 1975. Ανασκαφή εις την ακρόπολιν της αρχαίας Κηρίνθου. *Athens Annals of Archaeology* 8: 32–37.
- Sampson, A. 1976. Συμβολή στην τοπογραφία της αρχαίας χαλκίδος. Από τους προϊστορικούς μέχρι και το τέλος της ρωμαϊκής περιόδου. Chalkis: Society of Euboean Studies.
- Samsaris, D. 1994. *Η Ρωμαϊκή αποικία της Φωτικής στη Θεσπρωτία της Ηπείρου. Ιστοριογεωγραφική και επιγραφική συμβολή*. Ioannina:
- Sapouna-Sakellarakis, E. 1995. *Chalkis*. Athens: Hellenic Ministry of Culture.
- Schaus, G. (ed.) 2014. *Stymphalos: The acropolis sanctuary, vol. 1*. Toronto: University of Toronto Press.

- Schmid, S. 1999. Decline or prosperity at Roman Eretria? Industry, purple dye works, public buildings, and gravestones. *Journal of Roman Archaeology* 12: 273–293.
- Schwandner, E.L. 2001. Kassope, the city in whose territory Nikopolis was founded, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism* (Monographs of the Danish Institute at Athens 3): 109–115. Aarhus: The Danish Institute at Athens.
- Scott, M. 2014. *Delphi. A history of the center of the ancient world*. Princeton: Princeton University Press.
- Scranton, R. 1951. *Monuments in the lower agora and the north Archaic temple* (Corinth I.3). Princeton: The American School of Classical Studies at Athens.
- Servais, J. 1961. Recherches sur le port de Cyllène. *Bulletin de Correspondance Hellénique* 85: 123–161.
- Shipley, G. 1996. Archaeological sites in Laconia, in W. Cavanagh, J. Grouwel, R. Catling and G. Shipley (eds) *Continuity and change in a Greek rural landscape. The Laconia survey, vol. II archaeological data* (ABSA Supplement 27): 263–313. London: British School at Athens.
- Sideris, A. 2014. *Αντίκυρα. Ιστορία και αρχαιολογία*. Athens: Municipality of Distomo, Arachova and Antikyra.
- Skafida, E. 2009. Το Κάστρο-Παλαιά Βόλου κατά τους Ρωμαϊκούς χρόνους, in *Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας 3.I*: 365–372. Volos: Hellenic Ministry of Culture – University of Thessaly.
- Smith, Ph. 2008. *The archaeology and epigraphy of Hellenistic and Roman Megaris* (British Archaeological Reports International Series 1762). Oxford: Archaeopress.
- Sotiriou, A. 2013. Excavations at Kefalonia during 2005–2013. Kefalonia during the historical period, in G.J. van Wijngaarden and A. Soririou (eds) *Archaeology in the Southern Ionian islands. Proceedings of the workshop held at the Netherlands Institute at Athens, 30 October 2009* (Pharos 19.1): 1–50. Leuven: Peeters.
- Spawforth, A.J.S. 2015. *Greece and the Augustan cultural revolution*. Cambridge: Cambridge University Press.
- Spetsieri-Choremi, A. 2013. Πολεοδομική εξέλιξη και μνημειώδη κτήρια στην Αθήνα κατά την εποχή του Αυγούστου και του Αδριανού, in *Αθήνα. Από την Κλασική εποχή έως σήμερα (5ος αι. π.Χ. - 2013 μ.Χ.)*: 166–193. Athens: Εκδόσεις Άτων.
- Stählin, F. 1924. *Das hellenische Thessalien. Landeskundliche und geschichtliche Beschreibung Thessaliens in der Hellenischen und Römischen Zeit*. Stuttgart: J. Engelhorn's nachf.
- Stamoudi, K. 2008. Η έκφραση της κλασικής πόλης στη Θεσσαλία. Το παράδειγμα της Πελασγίας, in *1st International congress on the history and culture of Thessaly, Congress Proceedings I*: 139–151. Athens: Αλέξανδρος.
- Stangl, G. 1999. Bevölkerungsgeschichte von Pheneos und Lousoi, in K. Tausend (ed.) *Pheneos und Lousoi: Untersuchungen zu Geschichte und Topographie Nordostarkadiens* (Grazer Altertumskundliche Studien 5): 171–180. Frankfurt am Main: Peter Lang.
- Stavropoulou-Gatsi, M. 2011. Οι πόλεις Τριχόνειον, Άκραι, Μέταπα και οι αρχαιότερες της ανατολικής Μακρυνείας, in Z. Zafiropoulou, M. Stavropoulou-Gatsi and G. Stamatis (eds) *Τριχόνειον, Άκραι, Μέταπα. Αιτωλών πόλεις*: 20–43. Athens: Εκδόσεις Σήμα.
- Stavroyiannis, L. and E. Karantzali 2012. Νέα δεδομένα για τη ρωμαϊκή περίοδο στα Φάλαρα, in *Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας 3.II*: 1249–1259. Volos: Hellenic Ministry of Culture – University of Thessaly.
- Stefanidou-Tiveriou, Th. 2008. Tradition and Romanization in the monumental landscape of Athens, in St. Vlizos (ed.) *Athens during the Roman period. Recent discoveries, new evidence* (Benaki Museum Supplement 3): 11–40. Athens: Benaki Museum.
- Stein, C. 2001. In the shadow of Nikopolis: Patterns of settlement on the Ayios Thomas peninsula, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism* (Monographs of the Danish Institute at Athens 3): 65–77. Aarhus: The Danish Institute at Athens.
- Steinhauer, G. 2009. Οδικό δίκτυο του Πειραιώς, in M. Korres (ed.) *Αττικής οδοί. Αρχαίοι δρόμοι της Αττικής*: 236–243. Athens: Melissa.
- Stillwell, R. 1952. *The theatre* (Corinth II). Princeton: The American School of Classical Studies at Athens.
- Styrenius, C.G. 1998. *Asine. A Swedish excavation site in Greece*. Stockholm: Medelhavsmuseet.
- Symeonoglou, S. 1985. *The topography of Thebes from the Bronze age to Modern times*. Princeton: Princeton University Press.
- Themelis, P. 1999. *Η αρχαία Μεσσήνη*. Athens: Hellenic Ministry of Culture.
- Themelis, P. 2010. The economy and society of Messenia under Roman rule, in A.D. Rizakis and Cl. E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (ΜΕΛΕΤΗΜΑΤΑ

- 63): 89–110. Athens: National Hellenic Research Foundation.
- Theocharaki, A.M. 2015. *Τα αρχαία τείχη των Αθηνών*. Athens: Greek Epigraphic Society.
- Threpsiadis, I. 1936 [1937]. Ανασκαφαί εν Μεγάροις. *Πρακτικά της εν Αθήναις Αρχαιολογικής Εταιρείας*: 43–56.
- Touratsoglou, I. 2010. Coin production and coin circulation in the Roman Peloponnese, in A.D. Rizakis and Cl. E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (MEΛETHMATA 63): 235–251. Athens: National Hellenic Research Foundation.
- Traill, J. 1986. *Demos and Trittyes. Epigraphical and topographical studies in the organization of Attica*. Toronto: Athenians, Victoria College.
- Travlos, I. 1960. *Πολεοδομική εξέλιξις των Αθηνών. Από των προϊστορικών μέχρι των αρχών του 19^{ου} αιώνος*. Athens: Κωνσταντινίδης, Φ. και Μιχαλάς, Κ.
- Travlos, J. 1988. *Bildlexikon zur Topographie des antiken Attika*. Tübingen: Wasmuth.
- Triantafyllopoulou, P. 2009. Η Δημητριάδα και η ευρύτερη περιοχή της κατά τους Ρωμαϊκούς χρόνους, in *Αρχαιολογικό Έργο Θεσσαλίας και Στερεάς Ελλάδας 3.1*:341–349. Volos: Hellenic Ministry of Culture – University of Thessaly.
- Tsaravopoulos, A. 2005. Κύθηρα, in A. Vlachopoulos (ed.) *Αρχαιολογία: Νησιά του Αιγαίου*: 198–201. Athens: Melissa.
- Tsourtis, H. 2004. Αντίκυρα Βοιωτίας. Νομισματική μαρτυρία, in I. Kakouris, S. Choulia and Tz. Alimprani (eds) *Θωράκιον. Τόμος στη μνήμη του Παύλου Λαζαρίδη*: 123–128. Athens: Hellenic Ministry of Culture.
- Tziaphalias, A. 1988. Ασκληπιείο Τρίκκης. Μύθος ή πραγματικότητα. *Τρικαλινά* 8: 171–218.
- Tziaphalias, A. 1992. Αρχαία Πέλινα. Απόπειρα αρχαιολογικής γνωριμίας. *Τρικαλινά* 12: 87–138.
- Tziaphalias, A. 1994. Δεκαπέντε χρόνια ανασκαφών στην αρχαία Λάρισα, in Θεσσαλία. Δεκαπέντε χρόνια αρχαιολογικής έρευνας, 1975–1990. *Αποτελέσματα και προοπτικές II*: 153–178. Athens: Hellenic Ministry of Culture.
- Tziaphalias, A. 2006. Αρχαίο θέατρο Λάρισας: Πως ένα όνειρο έγινε πραγματικότητα, in *1st International congress on the history and culture of Thessaly, Congress Proceedings I*: 207–223. Athens: Αλέξανδρος.
- Tzouvara-Souli, Ch. 1992. *Αμβρακία*. Athens: Hellenic Ministry of Culture.
- Vikatou, O. and F. Saranti 2013. *Ο αρχαιολογικός χώρος και το ηρώο Καλυδώνας*. Messolongi: Hellenic Ministry of Culture.
- Vitti, M. and P. Vitti 2010. *Trasmissione ed adattamento delle tecniche costruttive Romane in Peloponneso: il caso di Trezene*, in A.D. Rizakis and Cl.E. Lepenioti (eds) *Roman Peloponnese III. Society, economy and culture under the Roman empire: continuity and innovation* (MEΛETHMATA 63): 267–289. Athens: National Hellenic Research Foundation.
- Vroom, J. 1993. The Kastro of Veloukovo (Kallion). A note on the surface finds. *Pharos* 1: 113–138.
- Waldstein, Ch. 1902. *The Argive Heraeum I*. Boston and New York: Houghton Mifflin.
- Wallace, P. 1979. *Strabo's description of Boiotia. A commentary*. Heidelberg: Winter.
- Weir, R. 2004. *Roman Delphi and its Pythian Games* (British Archaeological Reports International Series 1306). Oxford: Archaeopress.
- Welter, G. 1961. Αίγινα. Μέρος πρώτον (3000 π.χ. - 395 μ.Χ.). Athens: Μορφωτικός Σύλλογος Αιγίνης.
- Williams, H. 2005. The exploration of ancient Stymphalos, 1982–2002, in E. Østby (ed.) *Ancient Arcadia. Papers from the third international seminar on ancient Arcadia, held at the Norwegian Institute at Athens* (Papers from the Norwegian Institute at Athens 8): 397–411. Athens: The Norwegian Institute at Athens.
- Wiseman, J. 1979. Corinth and Rome I: 228 BC–AD 267, in H. Temporini (ed.) *Aufstieg und Niedergang der Römischen Welt, II, Principat 7.1*: 438–548. Berlin and New York: Walter de Gruyter.
- Wiseman, J. 2001. Landscape archaeology in the territory of Nikopolis, in J. Isager (ed.) *Foundation and destruction. Nikopolis and northwestern Greece. The archaeological evidence for the city destructions, the foundation of Nikopolis and the synoecism* (Monographs of the Danish Institute at Athens 3): 43–63. Aarhus: The Danish Institute at Athens.
- Woolf, G. 1997. The Roman urbanization of the East, in S. Alcock (ed.) *The early Roman empire in the East* (Oxbow Monograph 95): 1–14. Oxford: Oxbow.
- Yalouris, N. 1994. Elide 2o, in *Enciclopedia dell'arte antica classica e orientale, Secundo Supplemento 1971–1994*: 453–456. Rome: Marchesi.
- Yorke, V.W. 1896. Excavations at Abae and Hyampolis in Phocis. *Journal of Hellenic Studies* 16: 291–312.
- Zachariadou, O. 2008. Η ανατολική περιοχή της Αθήνας κατά τη ρωμαϊκή περίοδο, in St. Vlizos (ed.) *Athens during the Roman period. Recent discoveries, new evidence* (Benaki Museum Supplement 3): 153–166. Athens: Benaki Museum.
- Zachos, G. 2013. The Roman period from 146 BC to Justinian, in J. Pascual and M.-F. Papakonstantinou (eds) *Topography and history of ancient Epicnemidian Locris* (Mnemosyne Supplement 362): 537–548. Leiden and Boston: Brill.
- Zachos, G. 2013b. *Ελλάτεια. Ελληνιστική και ρωμαϊκή περίοδος* (Archaeological Institute of Thessalian

- Studies 3). Volos: Archaeological Institute of Thessalian Studies.
- Zachos, K. 2015. *Αρχαιολογικός οδηγός Νικόπολης. Περιδιάβαση στο ιστορικό, ιερό και αστικό τοπίο* (Μνημεία Νικόπολης 10). Athens: Hellenic Ministry of Culture.
- Zachos, K., D. Çondi, A. Dousougli, G. Pliakou and V. Karatzeni 2006. The Antigoneia project: preliminary report on the first season, in L. Bejko and R. Hodges (eds) *New directions in Albanian archaeology*: 379–390. Tirana: International Centre for Albanian Archaeology.
- Zachos, K., D. Kalpakis, Ch. Kappa and Th. Kyrkou. 2008. *Νικόπολη. Ανακαλύπτοντας την πόλη του Αυγούστου*. Athens: Hellenic Ministry of Culture.
- Zachos, K., I. Stamou, L. Leontaris and I. Soukatos 2015. *The odeum of Nicopolis* (Monuments of Nicopolis 6). Athens: Hellenic Ministry of Culture.
- Zachos, K., E. Pavlidis and Tranoudis A. 2015b. *The theatre of Nicopolis* (Monuments of Nicopolis 11). Athens: Hellenic Ministry of Culture.
- Zachou-Kontogianni, M.H. 1994. Παρατηρήσεις στην IG IX 2, 1232, in *Θεσσαλία. Δεκαπέντε χρόνια αρχαιολογικής έρευνας, 1975–1990. Αποτελέσματα και προοπτικές II*: 301–306. Athens: Hellenic Ministry of Culture.
- Ziegler, R. 1996. Civic coins and imperial campaigns, in D.L. Kennedy (ed.) *The Roman army in the East* (Journal of Roman Archaeology Supplement 18): 119–227. Portsmouth, Rhode Island: Journal of Roman Archaeology.
- Zoridis, P. 1985. Τα αρχαία τείχη των Μεγάρων. *Αρχαιολογική Εφημερίς* 124: 217–236.
- Zoumbaki, S. 2003. Η Τροιζήν κατά τη Ρωμαϊκή εποχή. Εσωτερική οργάνωση-οικονομική ζωή-κοινωνία, in E. Konsolaki-Giannopoulou (ed.) *Αργοσαρωνικός: Πρακτικά 1ου Διεθνούς Συνεδρίου Ιστορίας και Αρχαιολογίας του Αργοσαρωνικού II*: 159–170. Athens: Municipality of Poros.
- Zuiderhoek, A. 2009. *The politics of munificence in the Roman Empire: citizens, elites, and benefactors in Asia Minor*. Cambridge and New York: Cambridge University Press.
- Zuiderhoek, A. 2013. Cities, buildings and benefactors in the Roman East, in Ch. Dickenson and O. Van Nijf (eds) *Public space in the post-Classical city*: 173–192. Leuven: Peeters.

