THE FORMATION OF ROMAN URBANISM, 338-200 B.C.:

BETWEEN CONTEMPORARY FOREIGN INFLUENCE AND ROMAN TRADITION

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Preface and Acknowledgements

My curiosity regarding the relationship between Greek and Roman urbanism during the Hellenistic era was germinated by questions flung on occasion at us as undergraduates at Birkbeck College by Emmanuele Curti. I am indebted to him as the subsequent supervisor of my Ph.D. thesis, not only for his creative input but also for introducing me to Italian field archaeology and its scholarly tradition. This book largely comprises the results of the thesis which was completed at Birkbeck in 2007. However, by being resident in Berlin during the research and writing-up phases of this book I was provided with the chance to immerse myself in the distinct discipline of *Klassische Archäologie*, to which we owe much of our knowledge about the Greek cities of the E Mediterranean. My scholarly approach has thus been influenced by both the Italian and the German traditions.

I owe enormous gratitude to those who sacrificed precious time to read and comment upon my work. I hope to have improved this study due to the comments received during various stages of its development from Stefan Altekamp, Martin Millett, Tim Cornell, Lisa Fentress, Pierre Gros, Andrew Wallace-Hadrill, Ruth Westgate, Timothy Wiseman, John Patterson, Kathryn Lomas, Marcello Mogetta and Emma Dench. All errors obviously remain my own. I owe more than can be expressed to my partner and colleague, Claudia M. Melisch, for her unswerving support throughout. Nor could I have reached this point without the efforts of my former tutor, Ian Haynes, whose pastoral care extended far beyond the boundaries of mere obligation.

ABBREVIATIONS

CIL	*Corpus Inscriptionum Latinorum* (Berlin 1869-).
IDelos	*Inscriptions de Délos* (ed. F. Dürrbach; Paris 1926).
IG II	*Inscriptiones Atticae aetatis quae est inter Euclidis annum et Augusti tempora,* parts I-V (ed. U. Koehler; Berlin 1877-95).
IG III	*Inscriptiones Atticae aetatis romanae* parts I-II (ed. W. Dittenberger; Berlin 1878-82).
IG IV^2	*Inscriptiones Graecae* IV. *Inscriptiones Argolidis,* 2nd edn. fasc. 1. *Inscriptiones Epidauri* (ed. F. Hiller von Gaertringen; Berlin 1929).
IG XI,2	*Inscriptiones Graecae* XI. *Inscriptiones Deli,* fasc. 2 (ed. F. Durrbach; Berlin 1912) nos. 105-289.
IG XIV	*Inscriptiones Graecae* XIV. *Inscriptiones Siciliae et Italiae, additis Galliae, Hispaniae, Britanniae, Germaniae inscriptionibus* (ed. G. Kaibel; Berlin 1890).
ILLRP	*Inscriptiones latinae liberae rei publicae* (ed. A. Degrassi; Berlin 1957-).
Insc. Aq.	*Inscriptiones Aquileiae* (ed. J. B. Brusin; Udine 1991-93).
LTUR	*Lexicon Topographicum Urbis Romae* (ed. E. M. Steinby; Rome 1993-99).
OGIS	*Orientis graeci inscriptiones selectae* (ed. W. Dittenberger; Leipzig 1903-5).
RE^2	*Paulys Realencyclopädie.* Neue Bearbeitung von G. Wissowa, W. Kroll, K. Mittelhaus *et al.* (Stuttgart).
SEG	*Supplementum Epigraphicum Graecum* (Amsterdam-Leiden 1923-).
SGDI	*Sammlung der griechischen Dialekt-Inschriften* (Göttingen 1885-1915).
Syll^3	*Sylloge Inscriptionum Graecarum* (4 vols.; Leipzig 1915-24).

CHAPTER 1

Introduction

What were the processes which formed the physical model of the first Roman colonial towns? That is the fundamental question behind the present investigation. The Roman conquest of Italy and the subsequent expansion of the empire relied on a system of urban centres for further conquest, defence and administration, and these also participated in the spread of Rome's version of civilisation. The urban structure they created in Italy and the West had the single greatest influence on the network of towns found in those regions up to the present day. But how did the idea of the Roman town first come into being? I offer here a thorough analysis of the physical composition of the earliest *ex novo* Roman towns from the later 4th and 3rd c.,[1] with the aim of establishing how, why, and when they came to be constituted in the way they were. It provides evidence that will consolidate some of the conclusions generally accepted by modern scholarship, but it also offers some new argumentation that demands a reconsideration of the nature of Rome's links to the broader Mediterranean world in the later 4th and 3rd c.

What is meant by "the first Roman colonial towns"? Literary sources testify to Roman colonisation during the Early Republic, stretching back into Rome's mythical past, but the majority of those sites are, archaeologically speaking, poorly known.[2] Material evidence indicates that all the known sites are considerably older than the date attributed by the literary sources for the colonies' establishment.[3] This suggests that, rather than the foundation of new towns, early colonisation involved the re-organisation of existing settlements. Arguably, the most important developments for Roman urbanism came in the years 338-334 B.C.,[4] when the inhabitants of many defeated city-states which had been involved in the Latin revolt became Roman citizens and their communities became self-governing *municipia*.[5] Others assumed the status of *civitas sine suffragio*, meaning, *inter alia*, that they had to supply Rome with troops on demand, but had no right to vote at Rome. These developments meant that the citizen body could be augmented without Rome having to modify radically its political structure. Part of these constitutional changes included the revival of the Latin colony. Latin status came to be defined legally, which meant that it was no longer strictly determined by a geographical area and *ex novo* Latin towns could be founded in distant places. The first example of this novel settlement form was Cales in 334.[6] By the time Hannibal arrived in Italy, a further 22 settlements had been founded, often in pairs.

Scholars believe that, as well as to control newly-won territory, the Latin colonies fulfilled other purposes. Their placement reflected contemporary strategic concerns,[7] and they could both defend against aggressors and function as bridgeheads for further conquest. The sites chosen for these new towns were often aimed at defending key communications routes, which played a major rôle

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1 All dates are B.C. unless otherwise stated.

2 Torelli 2007, 165. Reported early Latin colonies from the 6th to the 4th c.: Cora (late 6th c.), Pometia (Suessa) (late 6th c.), Fidenae (498), Signia (495), Velitrae (494), Norba (492), Antium (467), Ardea (442), Labici (418), Vitellia (395), Circeii (393), Satricum (385), Nepete (383), Setia (383), Sutrium (382), Nepet (382). There is cause partially to question the validity of this list: cf. Lackner 2008, 216 n.10. For discussions see: Cornell 1995a, 301-4; Salmon 1969, 40-54; Torelli 2007, 165-67; Termeer 2010. Lackner (2008) provides a thorough overview and bibliography for these sites, including plans. Norba is the best known (most recently, Carfora *et al.* 2008), where a re-investigation has primarily brought to light the later stages of the settlement's occupation (Middle and Late Republic). The second most extensively site is Satricum (most recently, Gnade 2007), but the Dutch excavations have revealed little of the town's physical development after the date of the alleged foundation of the Latin colony.

3 Lackner 2008, 232-33 and 240; Termeer 2010, 54.

4 Cornell 1995a, 347-52; Toynbee 1965, 129-41.

5 Cf. Toynbee 1965, 197.

6 Livy 8.16.12-14.

7 Coarelli 1992, 27; 1998a, 29-33; Toynbee 1965, 158-60.

in Roman colonisation.[8] The Latin colonies absorbed some of Rome's growing population:[9] there are signs that, especially in the later 4th c., colonisation was partly a response to political pressure from the *plebs* for the distribution of land.[10] The new communities also counted allies of other ethnic backgrounds among their citizenry.[11]

The exploitation of newly-available agricultural land means that the foundation of Latin colonies, and the roads that linked them, probably had economic benefits too.[12] They were self-governing, and to enlist as a colonist meant giving up one's present citizenship in favour of that of the new colony.[13] They also had to supply troops to Rome, which increased her capacity for further conquest.[14] The constitutional changes between 338 and 334 that established the new *municipia* and the model of the Latin colony created a system which "made possible the rise of the Roman Empire".[15]

The programme of Latin foundations from 334 onwards has been called "historical colonisation",[16] in contrast to the earlier but less well-attested examples. Presumably the reason why this appellation is appropriate is because excavation has broadly confirmed the existence of the colonial foundations attributed to this period by the annalists. From an archaeological point of view, the Latin colonies stand out because, although a number were placed within older settlements, as the original ones were, many were constructed *ex novo*. On current knowledge this marks the beginning of the Roman practice of designing and realising urban centres.

Due to lacunose data Roman attempts at town planning prior to 334 are difficult to detect.[17] Latin colonisation from the 5th to early 4th c. was probably the responsibility of the Romans,[18] so one could potentially ascribe to them any physical regularisation of these settlements that postdates the colonial foundation. In her recent comparative study of these settlements, M. Termeer emphasises the frailty of the few published interpretations to associate the building of defensive circuits or the creation of urban planning with the foundation dates attested by the sources.[19] By far the best archaeologically-known example is Norba, founded as a Latin colony in 492,[20] but on a site occupied as early as the 7th c.[21] Some quarters of the town were orthogonally planned, but with distinct schemes and orientations that might be chronologically diverse.[22] Most recently, the first phase of the defences and town planning has been dated to the 4th c.[23] Although entirely possible, there is little assurance that this occurred before 338. Considering that Norba's urban layout is the best understood among the early colonies, it adequately conveys the current difficulty in comprehending Rome's ability to plan towns prior to the moment when the Latin League was extinguished. For this reason the colonies founded between 334 and the end of the 3rd c. are the focus of this study. These towns provided one of the solid footings upon which the success of Roman imperialism would be based, and they were the basis for subsequent developments in Roman urbanism.

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8 Coarelli 1988a; 1992, 27-28; Patterson 2006a, 191-93.
9 Càssola 1988a, 14-15.
10 Bradley 2006, 169-71; Patterson 2006a, 195-97.
11 Cornell 1995a, 367; Bradley 2006.
12 Càssola 1988a, 14; Curti 2001, 19; Bradley 2006, 169-71; Patterson 2006a, 194-95.
13 Toynbee 1965, 255; Torelli 1990, 44.
14 Gabba 1988.
15 Cornell 1995a, 348.
16 Coarelli 1992, 23.
17 Ostia is treated separately below.
18 Rather than that of the Latin League: Cornell 1995a, 302.
19 Termeer 2010, esp. 57-58.
20 Livy 2.34.6.
21 Quilici Gigli 1993-94, 285-89.
22 Quilici and Quilici Gigli 1988, 247-56; Quilici Gigli 2003, 25-26.
23 Quilici and Quilici Gigli 1988, 256; iid. 2001, 239-44.

At first glance, the plans of these towns bear little similarity to what we know of the layout of Rome, with its multiple *fora* and intricate web of streets, but they reveal more than a passing resemblance to the well-organised Greek cities in existence at the time they were founded. By then, the *polis* had undergone centuries of evolution, the physical articulation of 4th-c. Greek foundations being a consequence of colonial experimentation dating back to the 8th c. The earliest of the archaeologically-known Latin colonies, however, demonstrate a great deal of maturity in their town-planning from the outset. The period was a dynamic one for urbanism as a whole in the Mediterranean region, and it witnessed the foundation or expansion of many Greek cities.

One thus has to ask: was there a Greek influence on town design of the post-338 Latin colonies? Few now would disagree that there was. Earlier scholars argued that Roman town-planning had evolved from the organisation of space observed in some prehistoric settlements excavated in Italy. An influential account of the origins was presented by L. Pigorini, who unearthed a Bronze Age site, one of the so-called *terramare* settlements, at Castellazzo di Fontanellato, in the late 19th c.[24] He thought he saw a well-organised settlement, prompting him to cultivate a theory advocating that the Romans were the inheritors of a considerably older system present in the peninsula. Pigorini's theory influenced scholars like F. Haverfield, for example, who refined the orthodoxy by adding: "it was, perhaps, Greek influence which brought in a stricter use of the rectangle and a greater care for regular planning".[25] This was criticised at the time, but more recent excavations have added weight to Pigorini's assertion that a *terramara* settlement could have an orthogonal structure:[26] multiple rows of post-holes following the same alignment were documented at Santa Rosa di Poviglio, and it seems clear that subsequent phases conformed to the same orientation.[27]

But to consider the development of urbanism on the peninsula in evolutionary terms does not move us forward. Greek trade and *apoikismos* (colonisation) had a huge impact on the character of ancient society, including Rome, starting from the 8th c.[28] From this point onwards construction techniques and settlement forms start to change, a process that is particularly tangible in Etruria. Indeed, the Etruscans were once considered a potential source for Roman practices. Key elements of Roman surveying vocabulary appear to be adapted from the Etruscan language,[29] and Varro states that the Romans adopted the Etruscan rituals for the founding of a city.[30] As Haverfield pointed out early on, however, Etruscan ritual did not necessarily equate with town planning.[31] The late 19th-c. excavation of Marzabotto, an Etruscan colony, also contributed towards the belief in an Etruscan origin.[32] It was found to possess an orthogonal street grid laid out according to the cardinal points, which indicated that, by the end of the 6th c., the Etruscans had the ability to organise urban space in a way similar to Greek cities of the period.[33] Understanding the relationship between Etruscan and Roman urbanism is currently hampered by an almost complete absence of archaeological data relating to the Etruscan forum.[34] At the end of the 4th c. a small colony at Musarna, probably of military character, founded in the territory of Tarquinia, possessed a central forum-like area.[35] But no political architecture has yet been found in association with it, a missing key for comprehending the character of Etruscan urbanism. The 'forum' comprises a stretch

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24 Ward-Perkins 1955-56, 129-30.
25 Haverfield 1913, 72.
26 Ross Holloway 2005, 32.
27 Bernabò Brea and Cremaschi 1996, 15-22.
28 Cornell 1995a, 81-97; Torelli 2007, 45-64.
29 Torelli 1988a, 128-30.
30 Varro, *Ling.* 5.143.
31 Haverfield 1913, 71-72.
32 Brizio 1889, cols. 287-93.
33 Scullard 1967, 76-77.
34 Torelli 2007, 50; Lackner 2008, 284. Livy (7.19.3) refers to the existence of a forum at Tarquinia in the 4th c.
35 Broise and Jolivet 1997.

of the principal street which widens to almost three times its normal breadth at the centre of the settlement. One is reminded of G. Mansuelli's suggestion that the extraordinarily wide streets at Marzabotto may have assumed some of the functions of an agora.[36]

The foundations of the modern consensus were established by F. Castagnoli, who proposed that the regular planning of the Latin colonies from the late 4th and 3rd c. was derived from that of Hippodamos of Miletos.[37] He concluded that the Etruscans were also influenced by the Greeks and that their impact on Roman orthogonal planning was slight.[38] Castagnoli's influence can be felt in the works of A. Boëthius and J. B. Ward-Perkins, both of whom had favoured an Etruscan origin[39] but dropped the idea following Castagnoli's proposal.[40] His argument that orthogonal planning was derived from Hippodamos, however, is no longer accepted. The excavation of well-organised archaic colonies such as Megara Hyblaea and Poseidonia demonstrated that Greek orthogonal planning had been established even before Hippodamos was born.[41] The little we know about his life and work is mostly provided by Aristotle,[42] who described him as a political theorist but also as the creator of a system for the division of the *polis*. Since the invention of orthogonal planning can no longer be attributed to him, more recent discussions have suggested that he devised a way to partition physical space in correspondence with social divisions.[43] It has even been claimed that he was an architect of houses.[44] However, Hippodamos' theories did achieve physical realisation in a way, since we know that he was involved in the construction of Piraeus, and possibly other cities too. While the ancient sources reflect his status as an influential character, his contribution remains enigmatic.

The current consensus that the basic design of the Latin colonies was influenced by Greek practices[45] has not yet been backed up by targeted analysis. The belief that the Roman rites involved in founding a town are of Etruscan derivation is still common currency, as is the idea that some of the vocabulary used by the *agrimensores* was inherited from the same source. However, no longer is a direct link made between Etruscan and Roman town-planning practices.

A recent magnetometry survey of Gabii, an ancient Latin centre situated only 18 km from Rome, has revealed a planned settlement.[46] It is not yet known when the town assumed this form, but its simplicity and slight irregularity give it an ancient appearance. If the Latins, like the Etruscans, had the ability to plan towns in the archaic period, this signifies that the Romans might also have acquired the skill early on. Two factors need to be considered in this regard. Rome first became an active city-builder in the second half of the 4th c., meaning that she had no perceptible requirement for the corresponding skill-set beforehand. Secondly, the Greek practice of town-planning developed over time across the Mediterranean. Despite the great distances that separated the *poleis* of the Hellenic world, this proved to be no obstacle for the dissemination of novel concepts in architecture and town-planning. The Mediterranean had the ability to function as a superconductor for innovation through its seafaring peoples, as the Orientalising phenomenon had already shown. What this study hopes to illustrate is that we need to take concurrent developments outside Italy into account if we wish to contextualise early Roman urbanism.

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36 Mansuelli 1963b, 24.
37 Castagnoli 1956, 96-100 and 120.
38 Ibid. 80-81.
39 Boëthius 1953, 175; Ward-Perkins 1955-56, 145.
40 Boëthius 1960, 48; 1970, 105; Ward-Perkins 1974, 26.
41 Gorman 1995, 386.
42 Arist., *Pol.* 1266a.38-40.
43 Gorman 1995; Cahill 2002, 3-5; Shipley 2005, 373-75.
44 Hoepfner and Schwandner 1994, 309; *contra* Shipley 2005, 368-73.
45 Drerup 1976, 399; Torelli 1990, 46; 2007, 164-65. That the design of the Latin colonies conform "to contemporary Hellenistic norms": Terrenato 2008, 253-54. Cf. Lackner 2008, 231-32.
46 Becker *et al.* 2009.

The other great contemporary Mediterranean culture of this period, Carthage, should not be forgotten, for it was also based upon an urban way of life. Was there a link between Punic and Roman urbanism? It is possible that the planning of Punic cities was influenced by Greek practices. Excavations at Carthage have revealed that houses were constructed on insulae of [illegible] in the 8th c.,[47] and at least part of the city had an orthogonal plan by the 5th c.[48] It has been suggested that the 3rd-c. town planning found on the Byrsa hill was based on a Greek model.[49] Given the antiquity of Punic culture, the similarities in Greek and Punic town-planning might be due to both having developed from the same oriental source.[50] This theory does not take into account the effects of continued cultural contact, since, for example, an increasing Greek influence can be detected on Punic material culture, religion and constitutional structures from the 4th c. onwards.[51] A recent conference on Phoenician and Punic urbanism held at the German Archaeological Institute in Rome was the first to gather archaeologists working on Punic sites from across the Mediterranean region to discuss this particular theme,[52] and the topic will continue to see work.

If it is already accepted that the planning of the Latin colonies was influenced by Greek models, how does the work presented here add anything? It consists primarily of a 'compare and contrast' exercise. The archaeological evidence for the better-known Latin colonies from the period has been compared with that from a selection of contemporary Greek towns. The method involves breaking down the town into its components from the perspective of town planning and architecture, in order to establish exactly which elements of the Latin colonies were of Greek origin. Most of the towns' physical elements are discussed, but the primary focus is on the area of the forum and on housing. I also pursue the questions of when, how, and why particular Greek models were adapted by Roman town-builders. It provides a method to establish the extent to which the Romans drew on Greek ideas, and it creates a temporal framework for the phenomenon. It aims to provide a clearer understanding of the formation processes at work in Roman urbanism, and allows these developments to be placed within a Mediterranean context.

The analysis also highlights other features without an obvious Greek ancestry. The Latin colonies also included features seen only in other Roman and Italic settlements, as well as features found in Rome itself. It can be shown that some standard Greek models were rejected and found no place in the colonies. The question of why this was so is also addressed. The archaeology of the Latin colonies testifies to the employment of *contemporary* Greek ideas in town building, while other features stem from traditions which our sources suggest are Roman, Etruscan or Italic. The reader should beware of this neat separation, however. In this study, the non-Greek aspects of Roman urbanism are generally considered to have their origins at a point before the mid-4th c. This does not mean that their development during earlier periods was itself not subject to foreign influence. In the 2nd c. A.D., Aulus Gellius described the colonies as images of their mother city,[53] which has led some scholars to suppose that they were physical replicas of Rome. The value of this analogy and the scholarly debate it has stimulated will be assessed in relation to four Latin colonies.

The Roman archaeological evidence is mostly provided by the extensively-excavated Latin colonies dating from the 4th and 3rd c.: Fregellae (328), Alba Fucens (303), Paestum (273), and Cosa (273).[54] All were founded within the first 60 years or so after the new colonisation programme

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47 Niemeyer *et al.* 2009, 171.
48 Rakob 1984, 3; 1992, 33.
49 Toynbee 1965, 37; Lancel, Robine and Thuillier 1980, 16.
50 Fantar 1993, 174-75.
51 Picard 1994.
52 'Phönizisches und punisches Städtewesen', held on February 21-23, 2007, now published as Helas and Marzoli 2009.
53 Gell., *NA* 16.13.8-9.
54 The relevant archaeological evidence will be presented at the appropriate points, but most of it is drawn from the main excavation publications of these four sites:

began in 334. It is during this early period, when Rome had so little experience in founding *ex novo* settlements, that we might expect her planners and architects to have looked for existing solutions to the problems they now faced; in other words, it is the best period in which to look for a foreign influence. At least three of the four colonies have been extensively excavated and published – necessary criteria for a detailed examination of their archaeology. Together they provide the majority of the archaeological evidence related to Roman urbanism from 334 to the end of the 3rd c., a situation directly related to them being 'green field' sites. Of the five other Latin colonies from the period whose fora have been located, four lie beneath modern settlement[55] and one has yet to be excavated.[56] This reflects the central problem that the archaeology of many Roman towns from this period is beyond reach, thereby eliminating the possibility of a topographical analysis.[57] The piecemeal data provided by the other colonies will still be integrated into the discussion, as well as that from the better-known colonies of the 2nd c., Aquileia and Copia, which appear to share some features with the 3rd-c. sites. Fregellae and Cosa continue to be the best archaeological sources for mid-Republican urbanism, because the former was razed to the ground in 125[58] and the latter was largely abandoned in the Late Republican period.[59] As we shall see, there are difficulties in comprehending the mid-Republican phases of Alba Fucens and Paestum due to the residue of occupation that accumulated into late antiquity.[60] While the archaeological record from each town is fragmentary, from a comparison one may detect characteristics they shared, both in their planning and architecture.

The Latin colony as a settlement form is a suitable unit for study because it can be classified as a city-state,[61] at least during the period in question, like the Greek settlements used for comparison. The colonies were self-governing, with political institutions that may have derived from the older Latin communities. That the colonies were obliged to supply troops to Rome, however, reflects the fact that there were restrictions to their autonomy. Relatively set numbers of colonists were enrolled but the minimum appears to have been 2,500 families.[62] Some colonies were placed on the coast, others inland, and both types are represented in our sample. All the new settlements possessed a territory that was parcelled out to the colonists by the Roman magistrates who supervised the foundation.[63] Each colony had a forum where its political architecture and much of its commercial infrastructure were congregated, as well as some cult buildings. These characteristics are the basis for the application of the adjective 'urban', which can be summarised as being appropriate for a settlement with:

- vestiges of autonomous political institutions;
- a territory that was farmed by the settlement's inhabitants;
- a market-place around which most of the settlement's political and commercial architecture was assembled, with some religious foci.

Fregellae: Coarelli 1991; Coarelli and Monti 1998.
Alba Fucens: Mertens 1969a; 1969b; Liberatore 2004.
Paestum: Greco and Theodorescu 1980; 1983a; 1987; 1999; Torelli 1999a; Greco and Longo 2000.
Cosa: Brown 1951, 1960, and 1980; Brown *et al.* 1993; Bruno and Scott 1993; http://www.press.umich.edu/webhome/cosa/ (viewed 29.12.08); Fentress *et al.* 2003.
On the Latin colonies in general, see Salmon 1969; *DArch* ser. 3, 6.2 (1988); Torelli 2007, 165-81; Lackner 2008.

55 Aesernia (263 B.C.): Lackner 2008, 17. Narnia (299): ibid. 128-29. Firmum (264): ibid. 94. Spoletium (241): ibid. 191-92. The forum at Ariminum (268) is only roughly located: Ortalli 2006; Lackner 2008, 43-44.
56 Cales (334): ibid. 61-62. Although not securely located, Lackner's reconstruction is plausible.
57 Cf. De Maria 1988, 27; Lippolis 2000, 106.
58 Coarelli 1998a, 41-45; Rawson 1998.
59 Brown 1980, 74; cf. Fentress 1994; Fentress *et al.* 2003, 63-137.
60 Torelli 1999a, 157-69; Liberatore 2004, 31.
61 Cornell 2000a, 209.
62 Coarelli 1992, 25.
63 Gargola 1995, 87-98.



Fig. 1. The most important sites for this study.

As well as the Latin colonies, most of the other towns discussed comprise these basic qualities.

The number of Greek cities available for comparison to the Latin colonies is vast, but I have focussed on those that provide the best evidence for the present discussion: Metapontum, Poseidonia, Morgantina, Kassope, and Priene (fig. 1).[64] The primary criteria for selection were whether the site has a fully-excavated agora, and whether the agora has buildings dating from the relevant period. Fully-excavated agoras contribute much towards an understanding of how these spaces functioned within towns, which in turn permits a more holistic approach.

It is also helpful to understand the relationship between the agora and the rest of the urban area. For this, Poseidonia, Priene and Kassope are useful because their street systems have been reconstructed — something we also have for three of the Latin colonies. Priene and Kassope are both foundations of the mid-4th c., and their Hellenistic phases are well preserved. They provide the best contemporary testimony for Greek town-planning at the time the Latin colonies were founded. Some of the residential areas of Priene and Kassope have been excavated, and this evidence is critical for the discussion on Greek and Roman housing. Metapontum, Poseidonia and Morgantina are valuable because of their relative proximity to Rome, since the search for a Greek influence on Roman town-planning and architecture should begin with Greek cities in the vicinity. Although Metapontum and Poseidonia were archaic settlements, they were still inhabited during the 4th and 3rd c. and demonstrate clear indications of investment and renewal during that period. Neapolis and Syracuse might be the most important in light of the relationships they had with Rome at that period but unfortunately contribute very little archaeological evidence for town planning and architecture in the 4th and 3rd c. I also utilize evidence provided by other cities: the discussion on Greek and Roman housing necessarily treats Olynthus and Pompeii, for example, while the archaeology of Athens and Rome is introduced at relevant points.

This book tackles a large theme, and it does not pretend to be comprehensive. I highlight here issues that it leaves aside. Roman (citizen) colonies were also being founded both prior to and

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64 The sites under discussion cannot be called 'typical' or 'representative'. There is only a small number of well-excavated sites, and it is perilous to judge whether the few that are archaeologically well-known are representative or typical of the rest. The sites employed reveal great diversity in their foundation dates, geographical location and size, but this variety is useful for the present investigation because the similar elements in each stand out the better.

during the period under discussion. The oldest was Ostia, which probably dates to the second half of the 4th c.,[65] although a nearby archaic antecedent should not be excluded.[66] Because of their coastal positions, such colonies were called *coloniae maritimae*, and after Ostia as many as 10 were founded to the end of the 3rd c. Considerably smaller than the Latin colonies, several are known to have received 300 settlers plus dependants.[67] Geographically positioned to defend the coastline, they are believed to have been square or rectangular in plan.[68] These early colonies have been excluded from the main discussion because they appear to have lacked autonomous political institutions, reflected physically in the absence of a forum and other political architecture.[69] From the beginning of the 2nd c., considerably more Roman than Latin colonies were founded, reflecting somehow the changed circumstances after Hannibal.[70] It appears to be during this later period that the Roman colonies became more urban in character, with larger populations and the institutions of self-government.[71] However, the transformation of the Roman colony from small military outpost to fully-fledged town is an issue which lies beyond the temporal scope of this investigation.

Other Roman settlement forms of the period, the *forum*, the *conciliabulum* and the *municipium*, are not discussed. The *fora* are first reported in 212,[72] and more were founded during the 2nd c.[73] Relatively small, they were mostly situated on Roman roads. Similar to the *fora*, the *conciliabula* were meeting-places, but were probably not new foundations.[74] The *municipia* are growing in importance in the discussion on Roman urbanism and would be worthy of a separate study.[75] Although the status of *municipium* was generally conferred on existing communities (rather than a Roman foundation), it is becoming clear that many of them were subsequently re-planned, a fate that also befell some other settlements annexed by Rome.[76] The ancient literary sources are silent regarding Roman interest in re-structuring annexed settlements, yet it has been revealed through archaeological investigation. Establishing when and why they were re-planned is challenging since most lie beneath modern settlement. Terni (*Interamna Nahars*) is an example whose planning is dated to the Augustan period by Zampolini Faustini.[77] She also believes that there may have been an earlier phase of urban re-organisation during the 3rd c., for the reason that, during this period, the settlement was incorporated into the Roman State and received its defences. Perhaps; yet the precariousness of such a position has been shown in recent studies on Fundi, a Volscian town annexed with *civitas sine suffragio* at the end of the Latin War.[78] The town is almost square, and it was believed to have been given this form in the mid-3rd c. based on the dating of the enceinte's polygonal masonry.[79] More recently, a thorough investigation of the same wall has demonstrated that it comprised a curious mixed technique including *opus incertum* in its original phase, thereby pushing it forward to the late 2nd or early 1st c.,[80] a period when Rome is known

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65 Lackner 2008, 135-38 and 226; Coarelli (1992, 25) suggests a date as early as the late 5th c.
66 Bispham 2000, 158-75.
67 Livy 8.21.11, 32.29.4, 34.45.1. Cf. Bispham 2006, 122-23.
68 von Hesberg 1985, 142-50; Torelli 2007, 162-63; Lackner 2008, 230-31 and 236-37.
69 Coarelli 1992, 26; Torelli 2007, 159 and 162-64; Lackner 2008, 286.
70 Guidobaldi 1988, esp. 126; Curti 2001, 19-20.
71 Cf. Drerup 1976, 402; Torelli 2007, 184-85; Lackner 2008, 223; Mouritsen 2008.
72 Livy 25.5.6.
73 Laurence 1999, 27-38; Torelli 2007, 160; see also the discussion in Bispham 2007, 87-91.
74 Bispham 2007, 88.
75 That is, an archaeological study on their urban characters, for studies on the nature of Roman municipalisation do exist (e.g., Humbert 1976; Bispham 2007).
76 Sommella (1988, 25-26) mentions Alatri, Aletrium, Aquinum, Arpinum, Artena, Ferentinum, Fundi, Privernum, Saepinum, Teanum Sidicinum and Venafrum, but a full list needs compiling.
77 Zampolini Faustini 2006, 157-58.
78 Livy 8.14.10.
79 Cassieri and Quadrino 2006, 177-78; Quilici and Quilici Gigli 2007, 267-68.
80 Quilici and Quilici Gigli 2007, 293-309.

to have established towns with equally rational plans. But there is no doubt that the Romans were busy re-forming ancient centres during the 3rd c., as is apparent from the archaeological investigation of 'green field' sites. Excavations at Cumae (also annexed with restricted citizen-ship in 338) have found that the construction of a new forum and temple at the end of the 4th c. was associated with an urban overhaul.[81] Structures which pre-date the forum had a different orientation, implying an extensive re-planning of the lower town. Cumae is also discussed in this context in a recent study on the urban centres in Campania.[82] The authors argue that many of them, including Capua, were effectively re-founded and given new defences and regular street-grids after their annexation by Rome between the end of the 4th and beginning of the 3rd c. Falerii Novi is an obvious example, founded *ex novo* by the Romans soon after 241 for the survivors of the rebellious Falerii Veteres.[83] The potential geographical extent of this activity might be represented at Grumentum in Lucania. L. Giardino suggests that its town-planning from the early 3rd c. might be the work of the Romans.[84]

The Romano-centric focus of this work should not distract from the fact that other peoples in Italy were also building fortified settlements with regularised plans from the second half of the 4th c. to the moment of their subjugation by Rome.[85] It was a particularly dynamic period for settlement-founding in Italy, certainly in terms of the quantity of the centres that can be attributed archaeologically to this period. New walled settlements were being founded in the south within certain areas of Lucania and Bruttium.[86] Small fortified centres, many with permanent populations, were being constructed by the old Etruscan cities, and in great numbers.[87] This phenomenon may be contextualised from different perspectives: it seems to reflect economic changes, demographic increases and socio-political transformations on the peninsula. Situated so as to exploit defensive advantages, some of these centres were intended to defend communications routes, some to consolidate existing territorial borders or those newly augmented. A perceived external threat seems to have influenced some of this activity, and a number of these settlements were certainly conceived (at least partly) as countermeasures to Roman expansionism. Yet the phenomenon is complex, for one needs to consider the specific historical circumstances and the cultural diversity of the peoples involved. Many of the small Etruscan settlements appear to have been founded to defend the territories of larger urban entities, for example, but in the south this generally seems not to be the case.[88] The agency behind the construction of these centres defies neat definition. When viewing the situation through a wider lens, however, in the second half of the 4th c. one detects a new interest in certain parts of Italy for establishing fortified centres, often with regularised street-grids. The fact that this particular settlement form was chosen suggests that multiple cultures shared common beliefs regarding the 'ideal' form of settlement, and that they drew on Greek models. From this perspective, the Romans could be considered as just one among the peoples of Italy involved in this activity, even though their achievements were exceptional from a number of standpoints.[89] Aspects

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81 Gasperi 1999, 132; De Caro 2002, 658-59.

82 Rescigno and Senatore 2009.

83 Cf. Keay *et al.* 2000 and 2004; Millett 2007; Opitz 2009.

84 Giardino 1990.

85 There has been a recent wave of interest in this theme. See, e.g., the important contributions in Paoletti 2008 and Osanna 2009.

86 Cf. Fabbri 2009; La Torre 2009; Thomsen 2009. Some areas of interior Samnium, Apulia and Lucania were left untouched by this phenomenon: La Torre 2009, 181. Processes of urban re-organisation were taking place in larger Daunian settlements between the 4th and 3rd c., although it is difficult fully to separate these changes from waxing Roman influence: Marchi 2009.

87 Cf. Averini and Cerasuolo 2008; Cerasuolo and Pulcinelli 2008; Maggiani 2008; Rendini and Firmati 2008.

88 La Torre (2009, 182) suggests that some planned settlements in Lucania and Bruttium were established ("costituiti") by *poleis* in Magna Graecia. The issue is a complex one, for by this time many of the old *poleis* had fallen to the Lucanians and the Bruttians, both profoundly Hellenised peoples.

89 Many Roman foundations of the period could be distinguished from those of the other peoples of Italy through being urban as described on pp. 14-15 above. Clearly-defined public spaces and public

of this broader phenomenon enter the discussion at certain points, but I do not intend to analyse it systematically here; with increasing quantities of data becoming available, a detailed comparative study of Roman, Italic and Etruscan urbanism of the period will surely shed new light.[90]

Some major architectural categories have also been excluded. While religion is an important theme in these pages, urban sanctuaries as such are omitted. The Latin colonies founded on hilltop sites, such as Alba Fucens and Cosa, had their major urban sanctuaries situated on the heights at the extremities of the town.[91] This followed a practice seen in Archaic and Classical Greek cities such as Selinus and Acragas.[92] Many of the Latin colonial sanctuaries were situated within an area identified as an *arx* or acropolis, a topographical feature recently discussed at length by E.-M. Lackner.[93] The temple architecture in the colonies dating to the Roman period is mostly credited to the Italo-Etruscan tradition, which has its roots in turn in a much earlier period.[94] Some of the major characteristics of the urban sanctuaries appear to be influenced by foreign traditions that pre-date the period under discussion. A thorough analysis of urban sanctuaries in colonies would occupy an entire book.[95] Public bath complexes are also excluded, for the late 3rd-c. example from Fregellae[96] and the (not yet fully published) one from Paestum[97] do not provide sufficient evidence for a comparative study.[98] Yet some of the architecture and technology employed in Roman baths were evidently derived from Greek models.[99] The *porticus* is also excluded because the first examples date from the 2nd c. (see p. 67), although consideration is given to the reasons why the influence of stoa architecture cannot be felt before that. Theatres, amphitheatres, basilicas and *macella* are also excluded because the earliest colonial examples post-date our period. In short, the main themes to be treated are town planning, housing and the area of the forum.

The evidence utilized from the Latin colonies focuses on that dated between 334 and the end of the 3rd c. During this period central and southern Italy witnessed massive upheaval through their conquest by Rome, and the Latin colonies played a major rôle in this process.[100] The political, economic and social developments that accompanied the conquest influenced the character of Roman urbanism over time. The archaeology of towns in this period can be understood only when placed within the historical context; a careful treatment of the 3rd c. is needed due to the dearth of relevant sources.[101] The section on housing draws on Greek epigraphic evidence, while arguments concerning the *domus* and the character of Roman public space rely on the testimonies of Roman authors.

There have been some by-products of the main goal of elucidating the physical character of the Latin colony. The longest chapter, on colonial housing, argues that Roman domestic architecture owes a great deal more to Greek models than previously thought. To demonstrate this, it has been

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architecture are largely absent in the small Etruscan centres and those in Lucania and Bruttium: Cf. Gualtieri in id. and Poccetti 2009, 524-26; De Cazanove 2009, 174-77.

90 Torelli (2007) provides the best overview of the phenomenon. X. Lafon (2004) has questioned how we categorise Roman urbanism by highlighting the great range in size of Roman settlement forms of the 4th and 3rd c. and comparing them with examples of contemporary Greek, Etruscan and Italic settlements. A study by J. Becker (2007) discusses interconnections between processes of urban development in Roman and non-Roman contexts in central Italy during the middle Republic.

91 Alba Fucens: Mertens 1969a, 6-22; Torelli 1999b, 32-35; Liberatore 2004, 132. Cosa: Brown 1960, 19-109; Taylor 2002; Fentress *et al.* 2003, 29-30.

92 Di Vita 1990, 356; Hoepfner and Schwandner 1994, 308.

93 Lackner 2008, 245-54.

94 Boëthius 1970, 29-56; Gros 1996, 123-27; cf. Cornell 1995a, 167.

95 For an analysis of the Latin colonial cults, see Bispham 2006, 92-127; Lackner 2008, 247-50.

96 Coarelli 2004; Tsiolis 2006.

97 Lemaire and Robert 1995, 1996 and 1997.

98 Tsiolis 2006.

99 Adam 1988, 290; DeLaine 1989; Yegül 1992, 48 and 433, n.2; Gros 1996, 390; Fagan 2001.

100 Torelli 1999b, 3.

101 Cornell 1996, 97-99; Curti 2001, 17-20.

necessary to re-interpret the evidence for Greek domestic architecture; in the process it hopes to contribute to a better comprehension of the archaeology of Classical and Hellenistic Greek housing. Possibly the greatest difference between Greek and Roman urbanism of the period was the Roman use of the domestic atrium as a semi-public space. This influenced the urban structure of the colonies, at least from the 3rd c. onwards.

My primary research consists chiefly of a comparison of the archaeological evidence from Greek and Roman contexts. It breaks the town into its constituent elements, examining them individually. This method has some limitations, arising from the fact that the investigation rarely views the town in its entirety as a unit, but rather looks at the smaller units from which it was composed. Secondly, as a study on town planning and urban architecture, what lay beyond the town walls — the countryside and its settlement forms — hardly enter into the discussion. Yet understanding the relationship between town and territory is essential for comprehending the nature of the city during classical antiquity.[102] Elsewhere I have argued that changes witnessed in the territory and at the port of Cosa in the early 2nd c. were connected with a radical overhaul of the town's urban fabric,[103] an interpretation which would have been impossible without the evidence supplied by surface surveys and excavations outside the urban area. It demonstrates the extent to which a town's urban structure could be influenced by the economy of its territory. Because here the town is hardly discussed as an entity that includes its territory, it is not possible to add to the debate on the economic model of the ancient city.[104] However, this study does contribute to discussion on the economic and social problems involved in an urban foundation, and the solutions to those problems: it argues that the standardisation of some elements of house architecture was driven by the conditions created by the founding process, and it explores the concept of 'resource management' and its rôle in the construction of a town. Another section explores the social and political influence of the Roman patronage system on the town planning of the colonies, starting from the observation that residential areas for the highest property-class in Latin colonies were reserved in the immediate vicinity of the fora.

The book's urban focus means that it can provide only a very limited contribution to debates on the concepts of 'Romanization' and 'Hellenization'. With respect to the former, the implantation of Latin colonies throughout Italy brought urbanisation to many areas for the first time, and they "became the local manifestations of Roman mentality".[105] The primary consequence of the colonisation for the immediate pre-existing communities is marked by the disruption of former settlement patterns in the newly created *territoria*.[106] This is best evident at Cosa, where extensive survey has been conducted.[107] Because the colonies' extra-urban areas are not treated in this book but are so essential for the debate on Romanization, the effects of colonisation upon other communities will not be discussed. Despite certain similarities, each settlement was unique and situated in areas with differing cultural and ethnic compositions. As recent studies have emphasized, the process of Romanization partly depended upon the local context.[108] The matter is complicated further because the period under discussion is quite a long one in relation to the vicissitudes of the cultures that came under Rome's dominion — and then there is the point of view of the communities affected by the colonisation. In brief, the issue of Romanization will be touched upon only in discussion of the reception of ubiquitous and standardised house designs found in Latin colonies and at 'Samnite' Pompeii (see pp. 134-35).

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102 Vallat 2001, 108-10.
103 Sewell 2005, 106-13.
104 Cf. Finley 1973; Garnsey *et al.* 1983; Engels 1990; Cornell and Lomas 1995; Parkins 1997; Parkins and Smith 1998; Rich and Wallace-Hadrill 1991.
105 Curti *et al.* 1996, 186.
106 Ibid. 183.
107 Celuzza 2002a, 109-10; 2002b, 123.
108 Keay and Terrenato 2001; Merryweather and Prag 2002.

The concept of 'Hellenization' is perhaps more relevant to this study which is seeking Greek influence on Roman urbanism. Could it be formulated as a Hellenization of Roman urbanism? Such a question is counterproductive, potentially masking the answers we seek.

> This confusion and complication can be illustrated by the deceptively laden question of how a Hellenized Rome Romanized a generally Hellenized (and sometimes here and there Samnitized or Lucanized) Italy, where the repeated use of -ization concepts conceals and blurs numerous very different processes.[109]

Instead, the intention here is to discuss individual processes. For example, the reason why Greek domestic architecture was adapted for the colonies had no relation to why an adaptation of a Greek circular assembly-place appears in Latin fora. Neither would have been possible, however, without some kind of cultural contact with the Greeks, the nature of which will be discussed. The goal is to identify the processes with some precision, but it is beyond our purpose to discuss the consequences these foreign adaptations may have had upon urban society.

Chapter 2 will present the Greek elements of planning and public architecture, including fortifications, that can be identified in the Latin colonies. Scholars have proposed a Greek origin for many of these features but they are listed together here for the first time. Cosa is given particular attention because its Greek-influenced town planning is not immediately discernible in its network of streets. It seems that the original street-grid was more comparable to that of the other colonies, but that it was radically altered in the early 2nd c. This will be significant for later discussions. The chapter also offers an analysis of the potential processes which led to the Romans adopting these foreign models.

Chapter 3 examines components in the four colonies that are not found in contemporary urban Greek contexts, and their origins. It also considers some of the more standard Greek elements which were rejected by the designers of the Latin settlements. The differing sacred aspects of agoras and fora, essential to subsequent discussions, are introduced. Fora in Latin colonies seem to have owed little to Greek models and more to Roman ones. The model/replica debate is introduced in a re-assessment of how similar the colonies were to their mother city.

The long chapter 4 presents the results of a comparison of Greek and Roman housing, with a proposal about the Roman adaptation of a Greek design early in the period and a re-interpretation of the Greek evidence. Chapter 5 provides a new reading of the archaeological sources regarding the close relationship between the *domus* and the fora of the Latin colonies, and continues with an investigation of the literary sources which shed light on this tradition.

I hope to demonstrate that the Romans were more dependent on foreign expertise for the building of their early colonies than previously thought. At the same time, new evidence is presented that should strengthen the view that many aspects of the colonies' design were derived from Rome itself. Various influences were responsible for the formation of Roman urbanism during the early colonising period. I hope that a clearer understanding of them will also create a context from which we can better comprehend subsequent developments.

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109 Curti *et al.* 1996, 188.

CHAPTER 2

The Greek influence on the town planning and public architecture of the Latin colonies

The similarities between Greek and Roman town-planning and public architecture is the main theme of this chapter, which concludes with a discussion on how these likenesses may be accounted for.

The first part is a thematic examination of what is known of the town planning of Fregellae, Alba Fucens, Paestum and Cosa in comparison to some of what we know of Greek practices at the time these Latin colonies were founded (328-273 B.C.). Many aspects of the design of Latin colonies demonstrate a Greek origin. A comparison of the ensembles formed by the fortifications, streets, *insulae* and their relationship to the forum/agora reveals a similar way of thinking. This is not immediately recognisable in the layout of Cosa, but there is a strong case for supposing that the town underwent a makeover in the early 2nd c. B.C. which included the relocation of the forum The arguments to support this will be presented, along with what I believe to be the original 3rd-c. plan of the colony.

The second section deals with public architecture of Greek origin that can be found in the Latin colonies. Fortifications are a major theme simply because their monumentality has led to their survival. The large quantity of data they provide stimulated a resurgence of scholarly interest in urban defences in the later 20th c.[1] Greek and Roman fortification architecture demonstrate many points of contact. Current interpretations regarding the origins of some aspects of Roman defences are summarised and discussed. The debate about the circular assembly-places of Magna Graecia and Sicily, believed to have been the model for the circular comitium, is then reviewed. A Greek origin for many of the elements discussed in this chapter has been proposed, but they have not been considered together. In doing so here, my aim is to contribute towards a clearer comprehension of the phenomenon, and to provide a context for a proposal regarding the Greek influence on Roman domestic architecture. The means by which the Romans came to adopt foreign ideas will be dealt with in the final section, which includes, as an illustration of the process, a discussion on the origin of the distinctive design of Rome's coastguard colonies.

Planning the town's wall and the agora/forum

In both Greek and Roman contexts the course of a city wall probably had some influence on the orientation and form of the street grid and the agora/forum, at least for hilltop and hillside settlements. The 4th-c. foundations of Kassope (Epirus) (fig. 2) and Priene (fig. 3) provide good illustrations of the principles involved in the creation of wall circuits at that date. Both towns were placed on south-facing hillsides and the natural topography was exploited in the creation of their defences. This is demonstrated by the irregularity of the course followed by the walls when compared to the orderly layout of the streets within.

In the design of the fortifications of the post-338 Latin colonies the natural terrain was also taken advantage of. The town of Alba Fucens (fig. 4), founded in 303 in an area once controlled by the Aequi tribe (now modern Abruzzo),[2] was spread over three hills of a rocky outcrop that overlooked the Fucino valley and the large lake of the same name (now drained). The original fortifications are believed to belong to the first decades after the foundation,[3] although they were subsequently repaired and elaborated.[4] Cosa was founded in 273 on a highly defensible hill (fig. 5)

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1 Winter 1971; Lawrence 1979; Leriche and Tréziny 1986; Brands 1988; Miller 1995.
2 Livy 10.1.1.
3 Mertens 1988, 87-90; Liberatore 2004, 132.
4 Liberatore 2004, 5-108 and 129.



Fig. 2. Kassope: plan of the city including fortifications (from Hoepfner and Schwandner 1994, fig. 95. © DAI Berlin [W. Jo Brunner]).

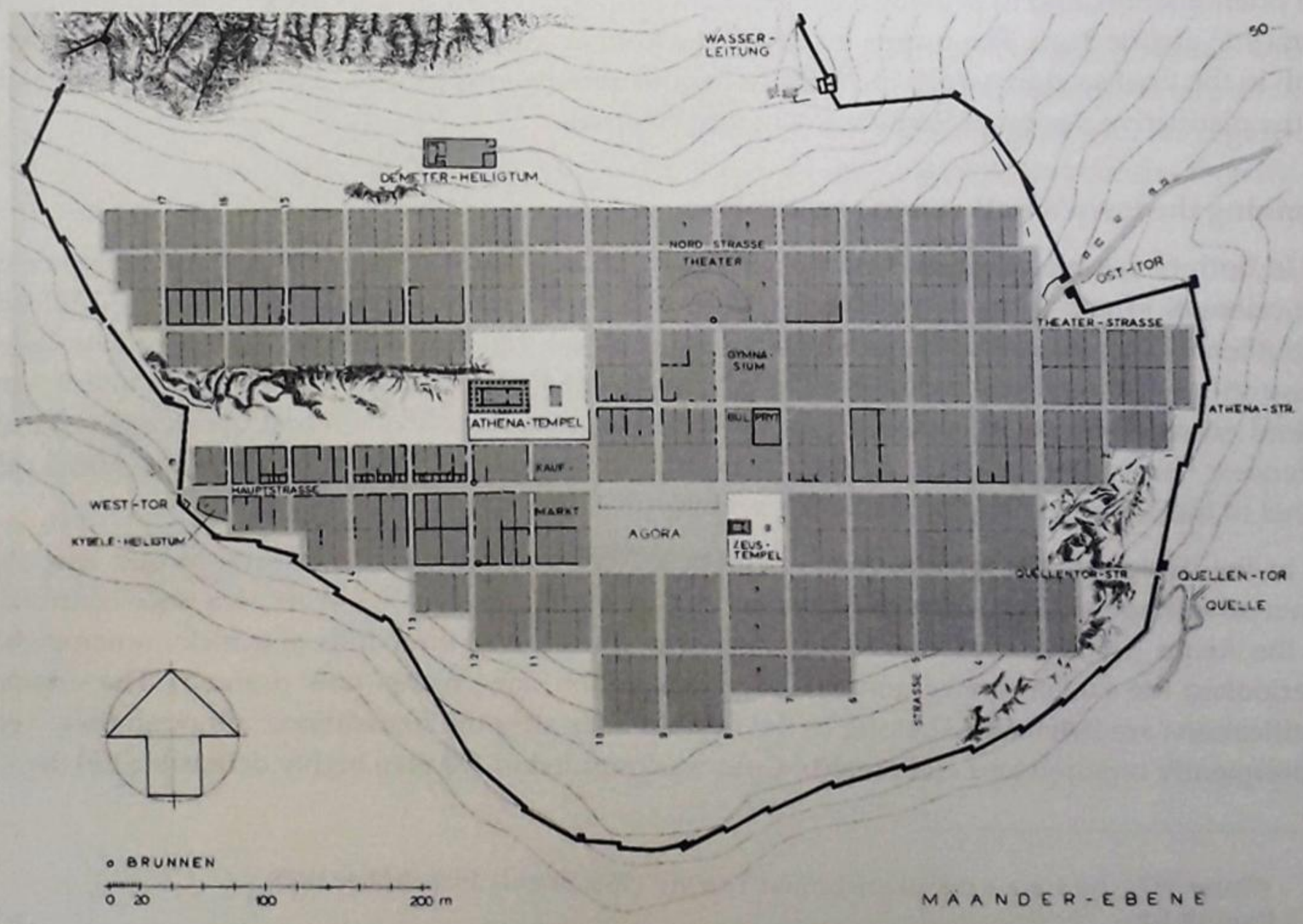


Fig. 3. Priene: reconstructed town plan of the 4th c. (from Hoepfner and Schwandner 1994, 191 fig. 179. © DAI Berlin [A. Tsingas]).

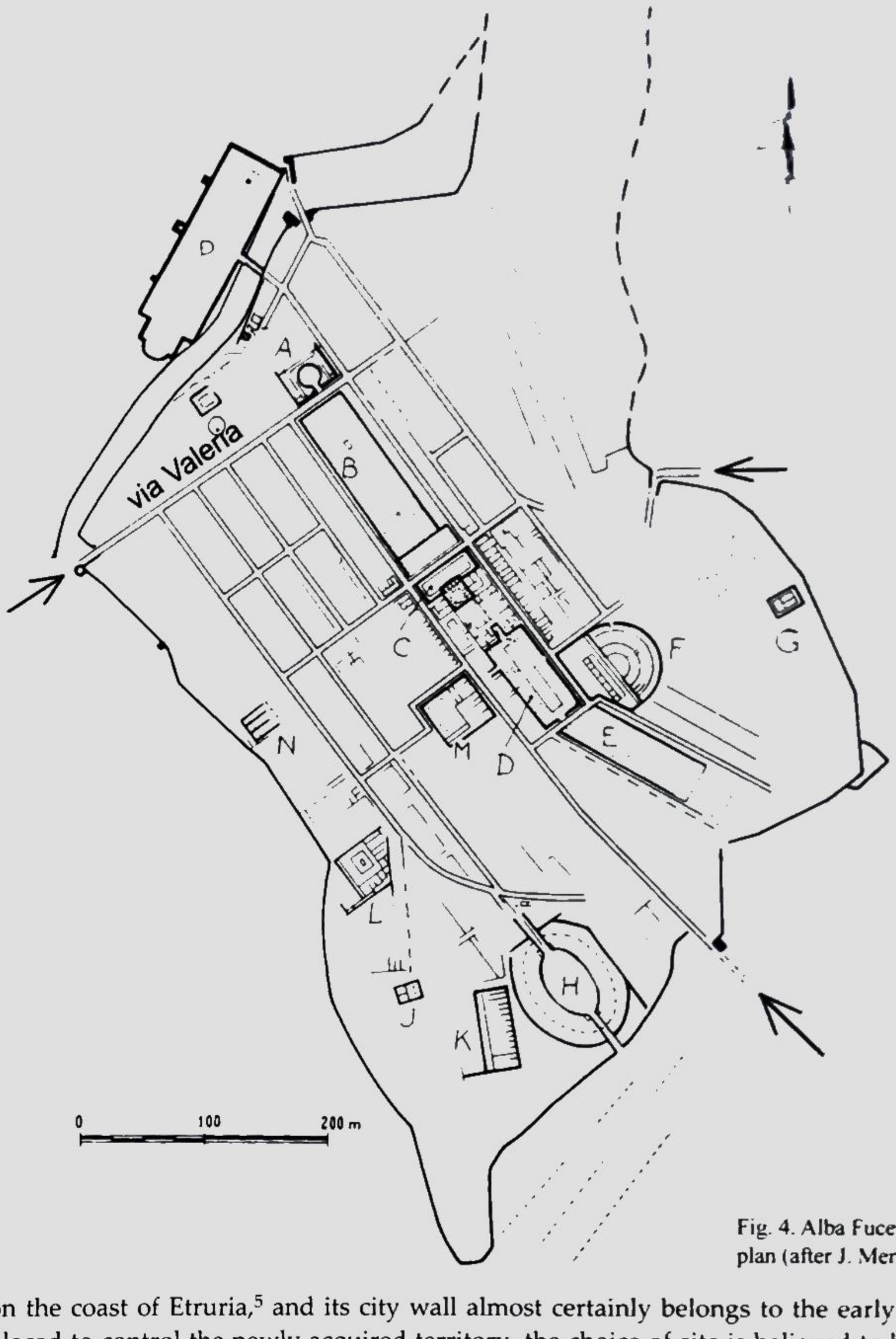


Fig. 4. Alba Fucens: reconstructed town plan (after J. Mertens 1988, 94 fig. 91.

on the coast of Etruria,[5] and its city wall almost certainly belongs to the early years.[6] Although placed to control the newly acquired territory, the choice of site is believed to be a response to a growing threat from Carthaginian sea-power.[7] The impressive curtain wall in polygonal masonry had 18 towers, the majority on the seaward side. No appreciable remnants of Fregellae's wall circuit have survived,[8] and at Paestum both the line taken by the curtain wall and the orientation of the street system appear to have been inherited from the Greek/Lucanian settlement into which the Latin colony was set in 273.[9]

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5 Vell. Pat. 1.14.7; Livy, *Per.* 14; Plin., *NH* 3.51.
6 Brown 1980, 20-21.
7 Salmon 1969, 79; Brown 1980, 7.
8 Coarelli 1998a, 54-55.
9 Torelli 1990, 48; Sconfienza 2005, 77-85.

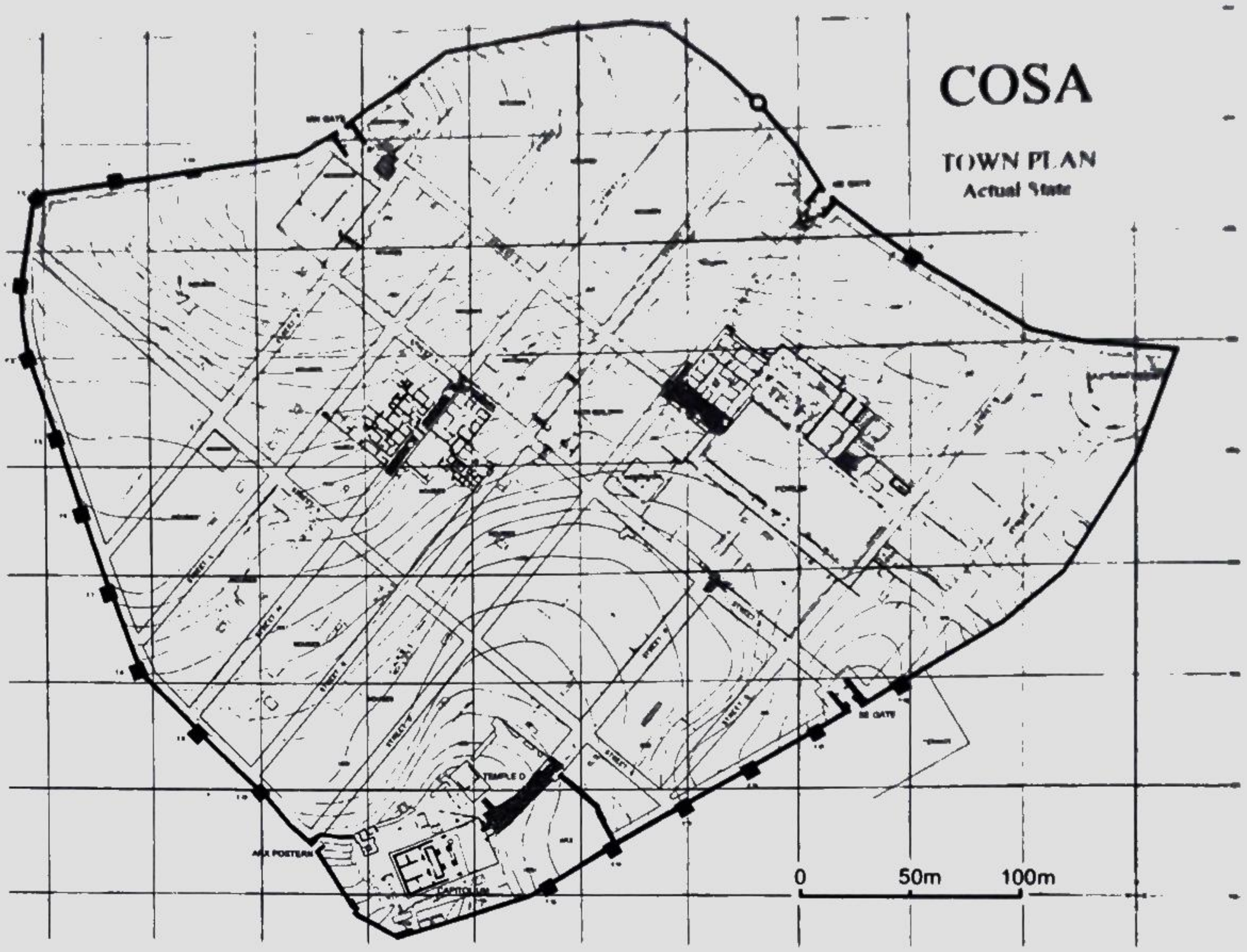


Fig. 5. Cosa: actual state of remains (from Fentress *et al.* 2003, 4 fig. 2. Reproduced by kind permission of the American Academy in Rome).

The plans of these settlements (figs. 2-5) reveal that at least some of the gates were sited, ideally, at low-lying points on the circuit. This device was linked to the routes entering the town, which often pursued approaches offering the gentlest slopes. This was not so much a defensive consideration but rather a way to ensure easy movement in and out of the settlement for regular traffic.[10] The majority of the streets that ran from these gates headed directly into the town and brought the traveller to the agora/forum. Irregular terrain must have been a challenge for the orthogonal planning of towns. On hilltop sites especially, the natural topography dictated the position of the gates, rarely allowing them to have an axial relationship with one another. Once the choice had been made as to where the gates were going to be, the orientation of the grid could then be adjusted to ensure that straight streets from the gates converged on the space intended for the agora/forum.[11] In this way the choice for the line of the curtain, the siting of the gates, the orientation of the grid and the placement of the agora were interdependent decisions. The two primary decisions to be made were where the agora and the trace of the city wall would be, even if actual construction of the wall came later. Adjusting the orientation of the streets could have been a challenge for the surveyors, depending upon the size of the site and how easy it was to obtain an overview of it. A glimpse into this process may be given by Libanius, who relays a frustratingly brief yet vivid report concerning the surveying of the new city of Antioch on the Orontes in 300 B.C.[12] Antiochus and his entourage were gathered on a vantage point overlooking the site of the new settlement

10 Winter 1971, 209.
11 Cf. Kenzler 1998, 133-35.
12 Liban. 11.88-92.

where elephants had been placed at the sites of the future gates. Boats with fires set on them were also employed in some manner, envisaged by A. Mastrocinque as situated on the adjacent Orontes as an aid for the visualisation of the streets' axes.[13] Both elephants and fire-signal boats had the advantages of being both easily visible and mobile: they provided the surveyors with a means of adjusting the future street-network's orientation while maintaining an overview of the whole site.

Modern literature on the foundation of new Roman cities often mentions the religious significance of the event and its Etruscan origins,[14] probably because Roman sources emphasise this aspect. The process began with the pulling of a plough around the intended limit of the town, the rite of the *sulcus primigenius*. The boundary of the urban area had sacred significance, but the rite possibly also served a practical purpose. The line of the curtain wall determined where the gates would be and thereby also the orientation of the street grid and the agora/forum, especially for hilltop sites. The process began with establishing the line of the curtain wall. The basic rule in surveying is to work from the whole to the part. In the field the surveyor's first task is to ascertain the absolute limits of the unit to be surveyed.[15] The ritual pulling of the plough served this purpose by scoring a mark on the ground that physically defined the unit intended for survey. Practical considerations thus played a major rôle in determining the layout of the town,[16] but this does not diminish the importance of the religious aspects of a foundation: augural procedures were important and omens would be acted upon. The first attempt to found a colony at Carthage in 122 B.C. apparently foundered for these reasons:[17] the boundary markers, placed during the surveying of the intended settlement, were torn out by wolves, which was taken as an ill omen and the tribal assembly in Rome voted to abandon the planned colony.

The relationship of the street-grid to the agora/forum, and the upheaval at Cosa

The agoras of Greek cities were generally placed on the most level ground at the heart of the settlement. This basic rule was valid from the archaic period onwards and can be observed, for example, at Poseidonia and Selinus.[18] This model was still adhered to during the 4th c., as typified by the plan of Priene (fig. 3). Sometimes coastal cities had their public square close to the harbour, as at Thasos.[19] The requirement to have the agora adjacent to the most important streets appears, however, to have taken priority over placing it in the geographical centre of the town, as seen at Kassope (fig. 2). This basic rule was also true for the Latin colonies: from a very early stage, the most important lines of communication played the decisive rôle in the placement of their fora.[20] At Fregellae, the *via Latina* transected the town from north to south and the forum was placed directly in its path at the centre of the town (fig. 6). At Alba Fucens, the forum was not situated in the centre of the town but towards the northwest, at least partly because this was where the *via Valeria* entered the town (fig. 4); placing the forum here ensured that traffic on the *via Valeria* passed by it.[21] To judge from the plan of Cales (the earliest of the colonies within our period), it seems likely that the relationship between the *via Latina* and the forum was similar to the situation at Alba Fucens.[22] At Paestum, the forum was placed at the junction of the two main streets that stretched between the city's four principal gates (fig. 7). The planning rule that seems to have been fairly strictly adhered to in both Greek and Roman contexts is therefore that if one followed any of the streets leading in

13 Mastrocinque 2007, 121-23.
14 Dilke 1971, 31-32; Adam 1988, 12; Brands 1988, 42-44; Torelli 1990, 44; 2007, 24-29 and 160-65.
15 Kahmen 1997, 2.
16 Adam 1988, 12.
17 App., *B.Civ.* 1.24.
18 Poseidonia: Torelli 1999a, 15; Greco and Theodorescu 2000, 90. Selinus: Mertens *et al.* 2003, 389-412.
19 Grandjean and Salviat 2000.
20 Lackner 2008, 255-56; cf. Sewell 2005, 91-95.
21 Cf. Lackner 2008, 21.
22 Johannowsky 1961, 258-59; cf. Lackner 2008, 60-61 and 344.

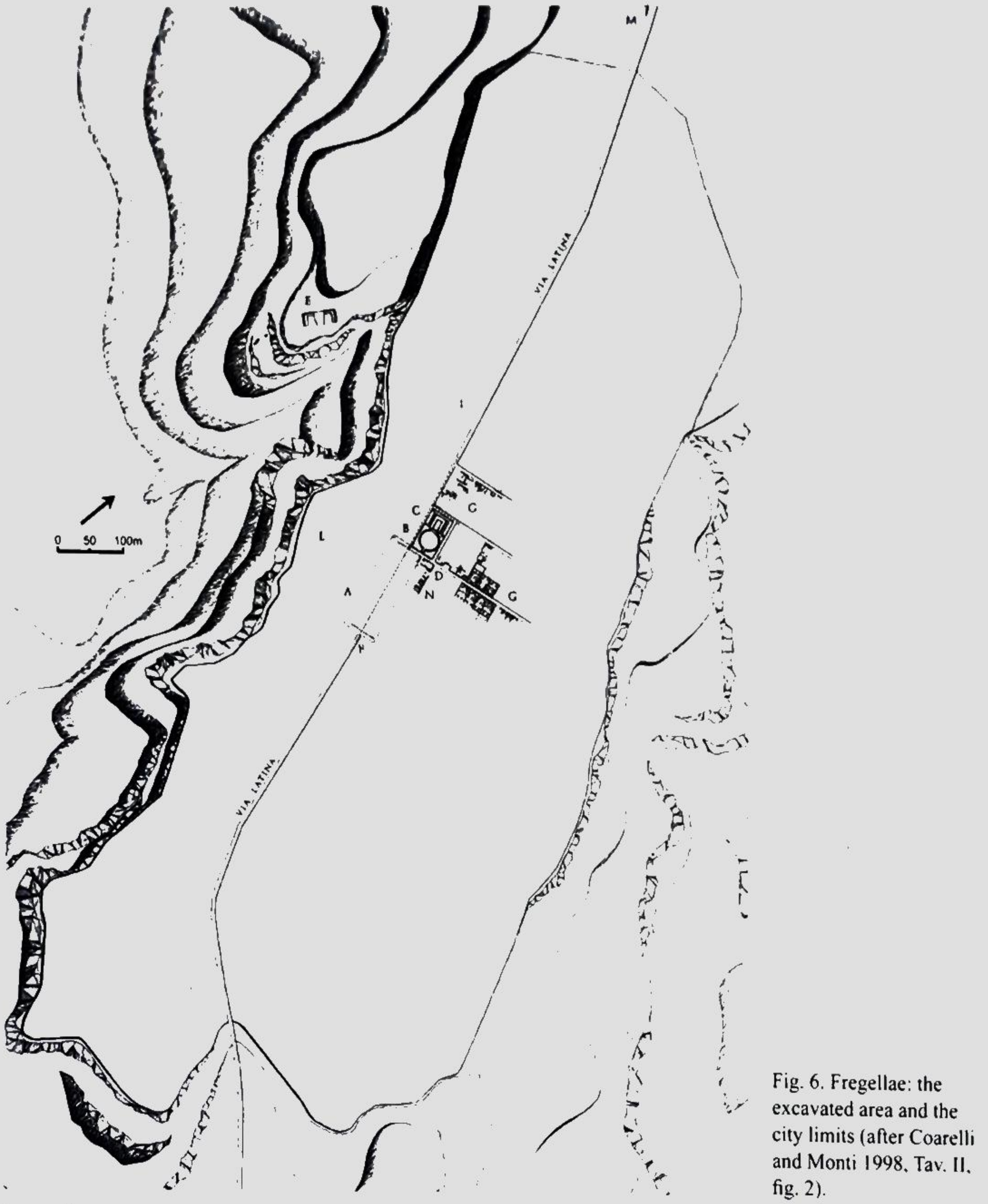


Fig. 6. Fregellae: the excavated area and the city limits (after Coarelli and Monti 1998, Tav. II, fig. 2).

from the main gates it would necessarily lead to the market-place. The convergence of the main axes on the central public square had been a fundamental characteristic of Greek urban design since the archaic period. Its adoption by the Romans has surely contributed to the view that they were the inheritors of Greek planning practices.

Cosa's planning is anomalous, since two of the major streets running in from the gates follow courses that avoid the forum; only Street 6, which starts from the NW gate, enters the forum directly (fig. 8). This is just one of several peculiar qualities of the forum at Cosa that I have noted.[23] Within Cosa's town plan there is another layout, at first glance hidden, which is far more compatible with the design of the other Latin colonies. The conclusion seems to be that the urban fabric of the town was radically altered at some point; it included relocating the forum, whose surface area

23 Sewell 2005.

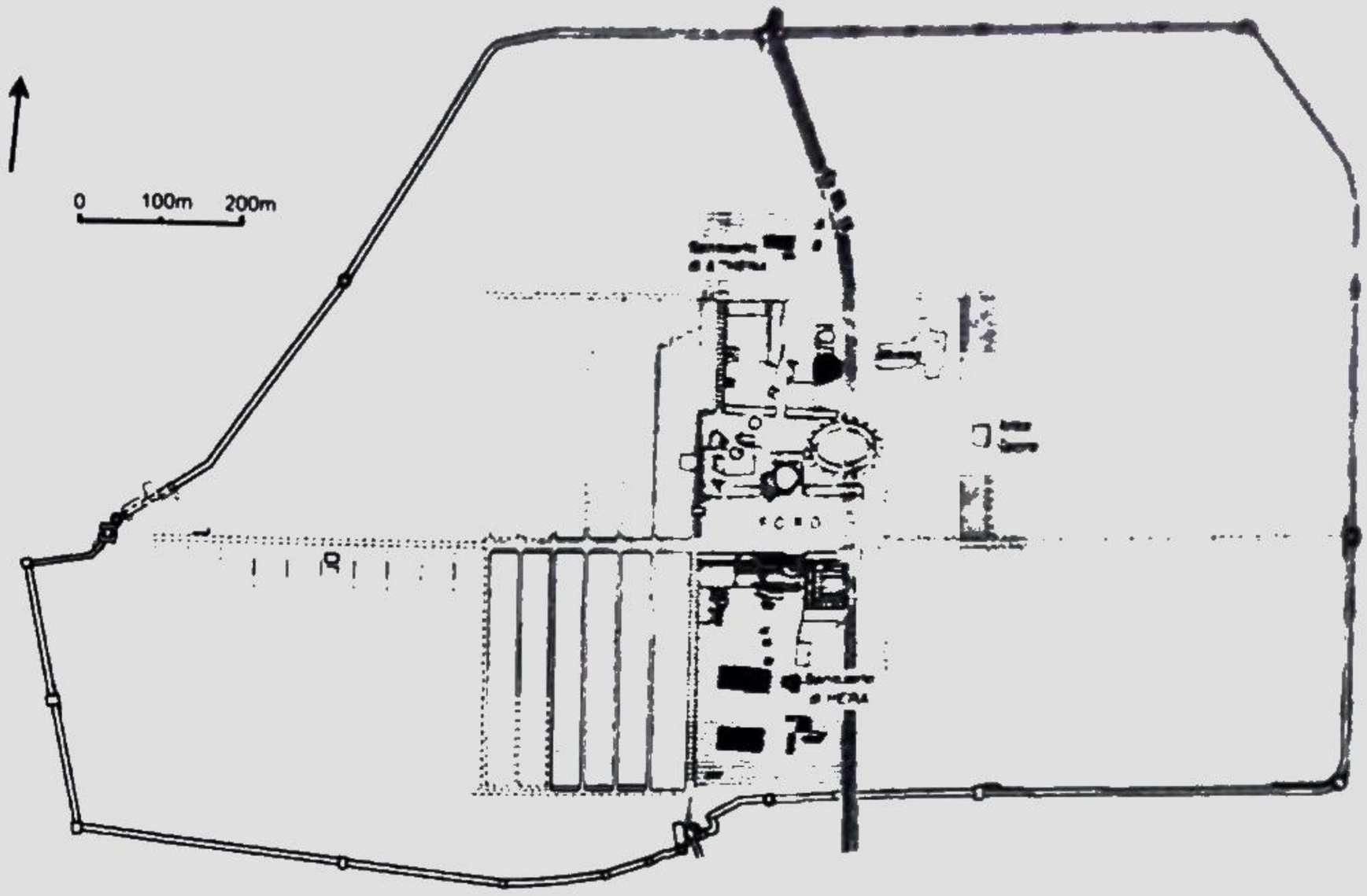


Fig. 7. Poseidonia / Paestum: reconstructed town plan (after Greco and Theodorescu 1996, 22).

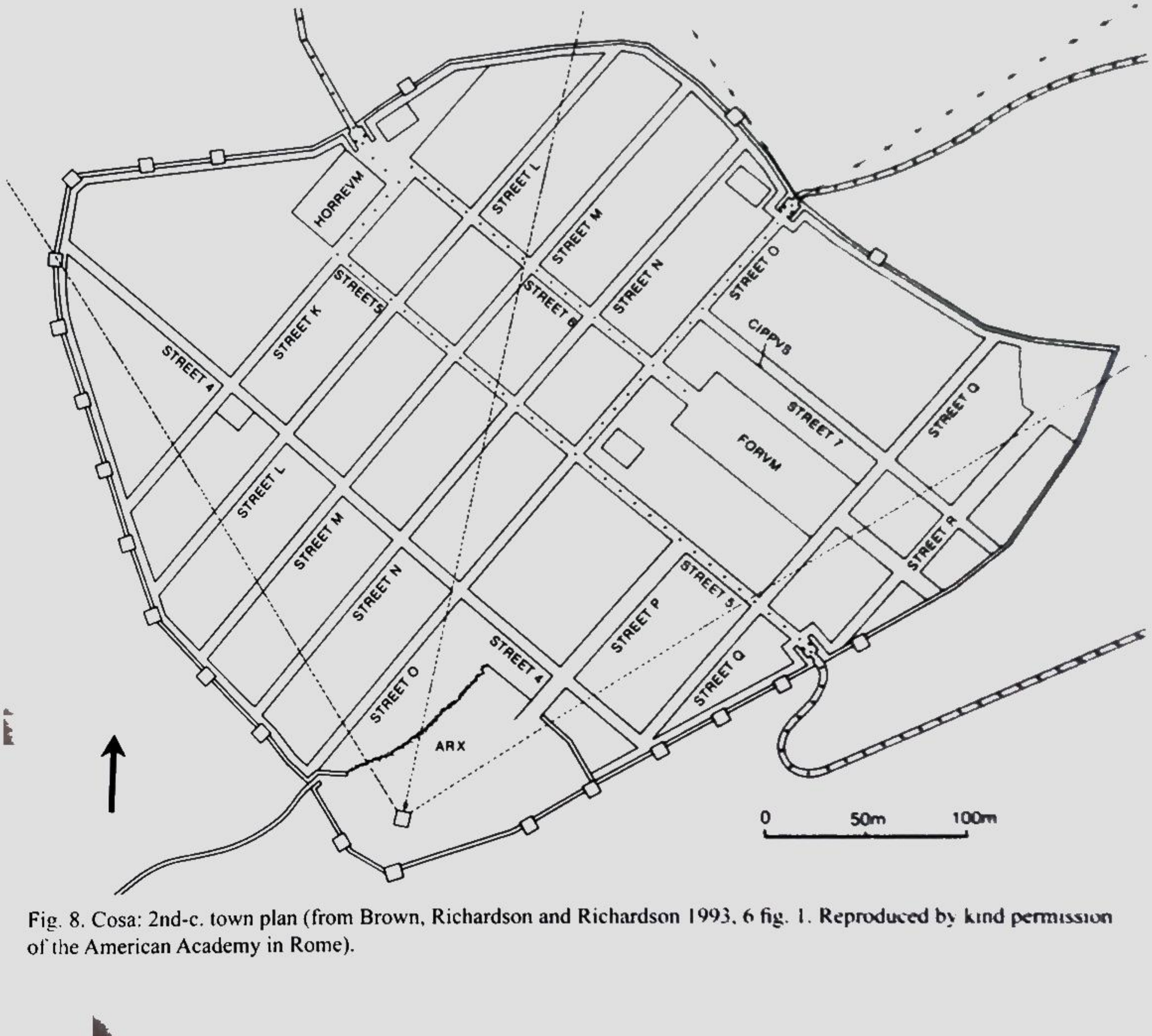


Fig. 8. Cosa: 2nd-c. town plan (from Brown, Richardson and Richardson 1993, 6 fig. 1. Reproduced by kind permission of the American Academy in Rome).

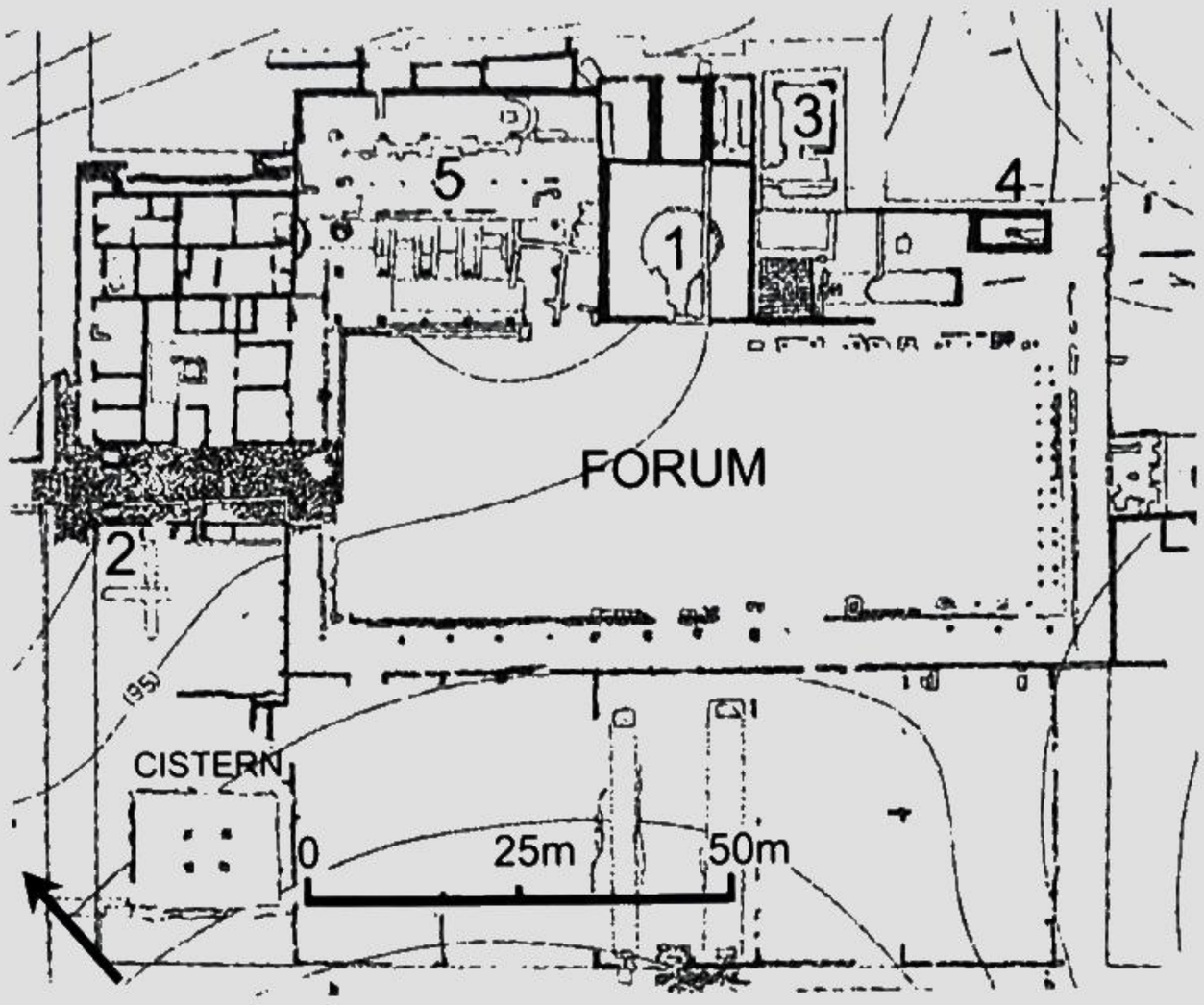


Fig. 9. Cosa: the actual state of the forum. 1. comitium, 2nd c.? 2. triple-arch, 2nd c. 3. Temple B, 2nd c. 4. *carcer*, 3rd c. 5. basilica, 2nd c. (after Fentress *et al.* 2003, 4 fig. 2).

was halved during the process. I will summarize the arguments here because they are relevant not only for this section but for following discussions.

Cosa's coastal position was important since its defences are orientated towards the sea. The SE gate leading to the harbour should be considered its most important one. The forum is closer to this gate than any other, which complies with the Vitruvian rule that the fora of coastal towns should be situated near the harbour.[24] The problem is that the extension of Street 5 from the harbour gate not only ignores the forum but is also physically separated from it. The forum as excavated is small when compared to the other Latin colonies. The intention appears to have been for the forum dimensions to be 300 x 120 ft, with an area of 2.5 *actus quadrati*,[25] but the SE end is actually 6 ft shorter than the NW end. The place chosen for the forum involved the creation of irregularly shaped *insulae* flanking its NE and SW sides (fig. 8), a feature without parallel, as far as I am aware, in contemporary Greek or Roman town-planning. Perhaps the most bewildering aspect of the forum, however, is the position of the comitium/curia, a place for political assembly and where the local senate met (fig. 9). It was placed on an *insula* that was insufficiently large for it, with the result that it extended across the street behind (Street 7), blocking it, and encroached on a block to the northeast (compare figs. 8 and 9). The basilica and Temple B subsequently came to be constructed on either side of the comitium/curia complex (fig. 9), and although their rear limits roughly correspond to that of the assembly-place, they too extended across Street 7 and into the *insula* beyond.

Away from the forum another planning irregularity can be demonstrated. Street P runs from the sanctuary on the S height (the so-called *arx*) and enters the forum exactly in the centre of its SW side (the full extension is not shown in fig. 8, but is clear in fig. 5). What stands out is that Street P has a slightly different orientation to the other streets running from SW to NE (fig. 8). A continuation of Street P on the NE side of the forum has recently been discovered,[26] but its orientation conforms to that of the other streets. The NE stretch is equidistant to Streets O and Q, thereby establishing two equal-sized *insulae* on either side of it. The skewed SW section of Street P led to the creation of two slightly trapezoidal and uniquely sized *insulae* on both its sides.

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24 Vitr. 1.7.1.
25 Brown, Richardson and Richardson 1993, 9.
26 Fentress *et al.* 2003, 26-29.

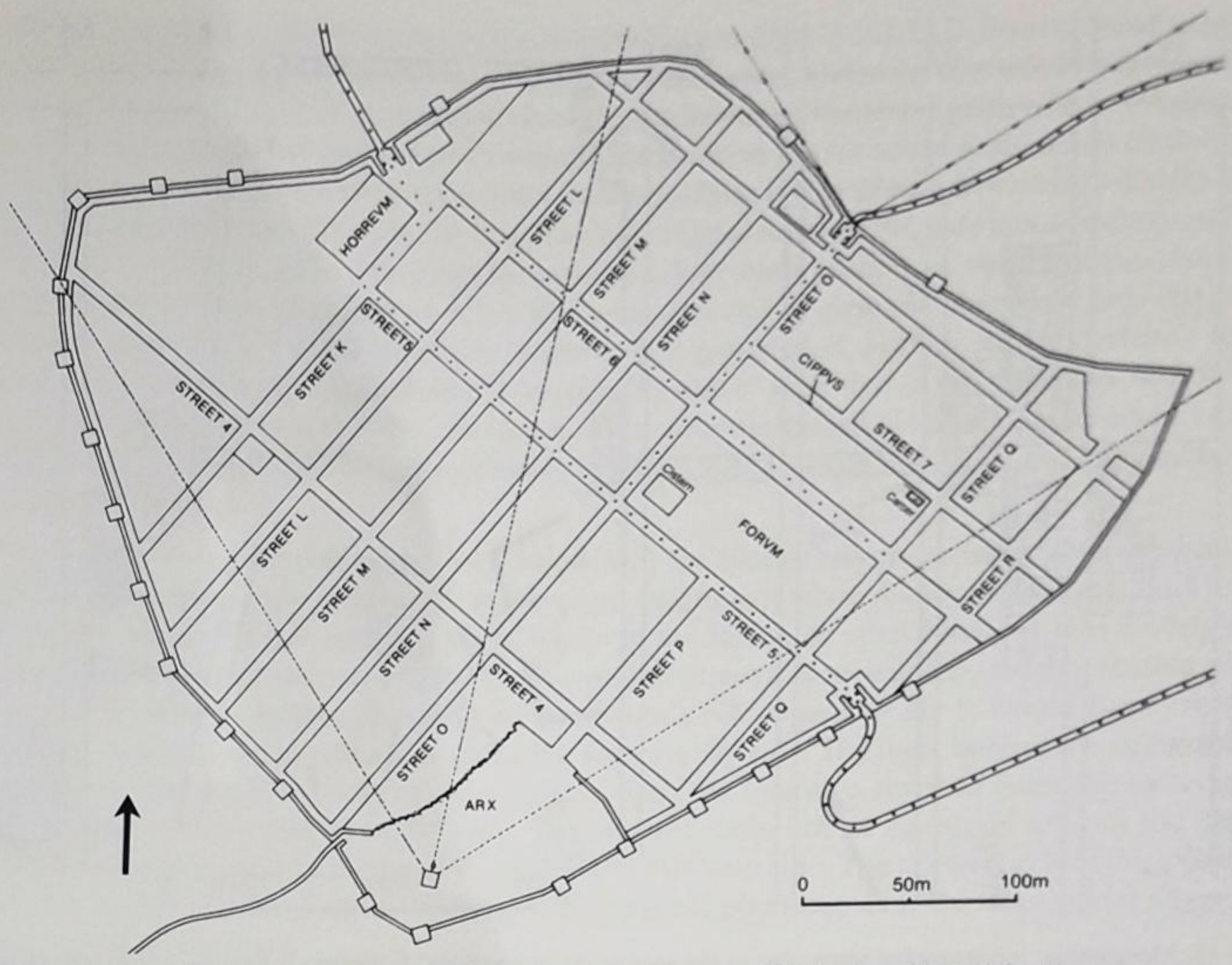


Fig. 10. Cosa: reconstructed 3rd-c. town plan (after Brown, Richardson and Richardson 1993, 6 fig. 1).

All of these irregularities can be explained. I would argue that the original 3rd-c. town plan emerges if one removes the existing forum from the plan (fig. 10). This creates two regular blocks on either side of Street 6 in this area. I believe the southerly of the two was intended to be Cosa's original forum. It would have been the largest *insula* in the town. If we make a comparison with Alba Fucens (another *ex novo* colony where the town plan is fairly well understood), the largest *insula* was its forum. Note that the streets from Cosa's three main gates each pass along a different side of this block. It obeys the 'go straight on from the gate and you'll reach the forum' rule we find in Greek and other Roman planning of the period. This block, which henceforth I will term the "original forum", had not only a direct relationship with the important Street 5 coming from the port gate, but was so situated that traffic from the port could have spilled out onto it almost as soon as it entered the town. If the surface area of the original forum included the width of Street 6 (as the excavated forum does), it would measure 360 x 200 ft, or 5 *actus quadrati*, exactly twice the intended size of the excavated forum. The other 'new' *insula* on the NE side of Street 6 measures 360 x 100 ft, and was probably intended for the original forum's civic architecture. The other Latin colonies discussed in this study also appear to have had similar blocks planned along their flanks (see chapt. 3).

The original forum had streets along its edges, in stark contrast to the later version. This is also a feature of the forum at Alba Fucens. The openness is typical of Greek agoras (e.g., Priene and Kassope; figs. 2-3).[27] Two major streets bounded the edge of the forum at Paestum, as can be best seen from the overall plan (fig. 7). At Fregellae, the situation is not so clear due to our limited knowledge of the town plan, but there was certainly a street along the N edge of the forum. Another planning device favoured by Greek planners was to orientate rectangular agoras 90° to the other *insulae*. By the 4th c. it became usual for new foundations to have their agoras orientated in this way, as seen at Priene and Kassope (figs. 2-3). This made the agora stand out within the

27 Russell 1968, 321.

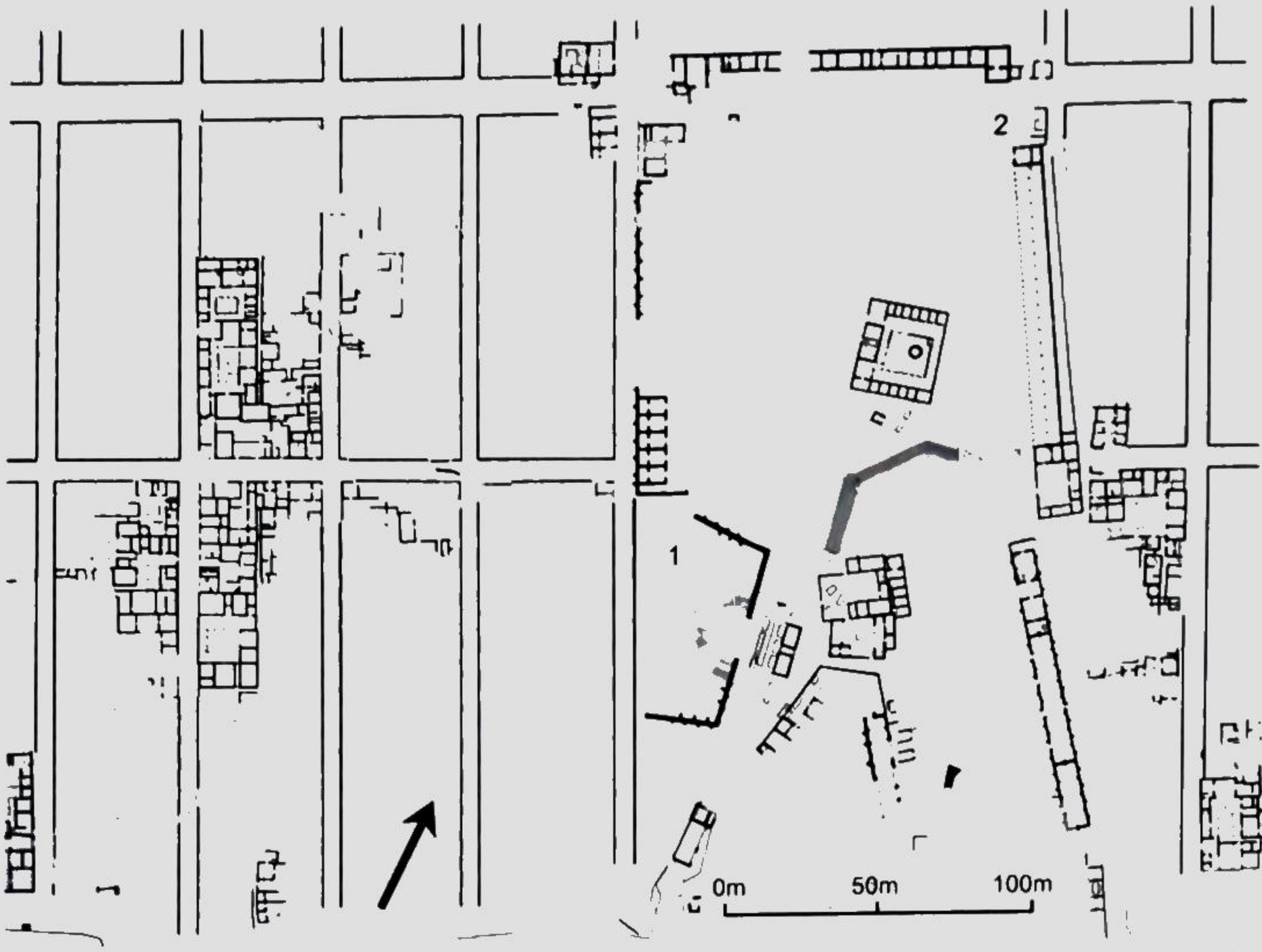


Fig. 11. Morgantina: reconstructed town plan in the area of the excavations. 1. theatre. 2. fountain house (after Cuomo Di Caprio 1992, tav. 54).

town plan, but the practical benefits on the ground are more difficult to judge. The same design element also found its way into Roman planning, as can be seen at Fregellae, Paestum, and in the original forum at Cosa (figs. 6, 7 and 10).[28] At Paestum, the extremely large and nearly square agora of the former Greek/Lucanian settlement was greatly reduced in size for the creation of the new rectangular forum, orientated to be perpendicular to all the other *insulae*.[29] A site's topographical limitations could negate the possibility of such an arrangement. At Morgantina in central Sicily, founded under Greek influence in the second half of the 5th c., the agora is placed within a small elongated valley, which dictated its orientation (fig. 11).[30] The same is true for Alba Fucens (fig. 4). It is possible, however, to detect the general tendency to turn the agora/forum 90° in relation to other blocks in both Greek and Roman settlements.

The compatibility of the planning of Cosa's original forum with the Greek-influenced planning of other Latin colonies makes it almost certain that our ability to comprehend the former scheme within Cosa's town plan cannot be due to a series of coincidences. Yet there are great obstacles to finding further physical traces of the original forum since at some point the forum appears to have been relocated, an event which probably had disastrous consequences for any original forum architecture. I have been able to identify only two possible features of the original scheme, both of which share the trait of being virtually indestructible, since they were cut into the bedrock. One is a cistern

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28 Lackner (2008, 95-97 and 351) integrates the published results of early trial trenches and geophysical surveys to reconstruct Fregellae's town plan. She superimposes putative streets across the area near the forum where extensive excavation found none, thus creating a confusing street pattern that should be regarded with extreme caution.

29 Martin 1972, 911.

30 See Bell 1984 and 1988; Tsakirgis 1995; Antonaccio 1997. See also the preliminary reports of Stillwell and Sjöqvist in *AJA* 61-68 (1957-63).

(rectangular in plan) in the W corner of the original forum (figs. 9-10). F. E. Brown dated this feature to "before the arrival of the colony",[31] possibly because it created an obstacle to later building activity in the area. However, its orientation conforms to that of the street grid, which it thus postdates. If it belonged to the earlier forum scheme, its position makes sense since it lies on the spot within the forum that is closest to the town's centre, making it logical as a town-wide distribution point. Secondly, the *insula* flanking the length of the original forum's NE side has a feature cut into the rock at its E corner, with a rectangular superstructure built around its subterranean entrance (figs. 9-10). It has been identified as either the *carcer* (prison) or *aerarium* (treasury) (see chapt. 3) and dated to the 3rd c.[32] without specific evidence being provided, but the superstructure's technique was described by Brown as being "considerably older" than that of the buildings near it.[33] It is the only feature that is both within the limits of the *insula* intended for the original forum's civic buildings and that respects the course of Street 7 behind it (unlike the comitium and its neighbouring structures).

The excavated remains offer other indications that the former scheme existed. The faulty angle of Street P can be explained if it was the result of a re-alignment when the forum was moved. I have restored the section of this street on the SW side of the forum to what I believe was its original course in fig. 10. The greater rationality of the restored Street P is revealed by its conforming with the axis of its known continuation beyond the forum's NE edge; thereby it would have created two *insulae* of equal size to either side along the forum's SW side. The logic behind the subsequent adjustment of the street's course appears to have been the intention for it to enter the excavated forum exactly in the centre of its SW side. The restored early line of the street follows the same logic by meeting the original forum at the midpoint of its long side. The skewed axis of the existing Street P is also a sign that it did not belong to the original planning, as is the trapezoidal shape of the excavated forum itself.

The proposed 100 x 360 ft *insula* for civic structures flanking the NE side of the original forum was partly consumed by the creation of the excavated forum, rendering it largely useless, but it still seems to have survived in an abstract form. Although the boundaries of Street 7 and the *insula* to its northeast were simply ignored for the placement of the comitium, the basilica and Temple B, what remains consistent is that all three structures are roughly 100 ft long (the comitium is *c.*95 ft long), which is the width of the original block. It is as if an abstract space corresponding to the *insula*'s dimensions was projected 45 ft to the northeast. The abstract limits of public space were often physically marked by boundary stones (*cippi*). Underneath the basilica Brown discovered an uninscribed *cippus in situ* (fig. 10), as well as traces of another, and a possible foundation for an inscription, all of which had been set into Street 7 northwest of the comitium.[34] This evidence supports the view that a space corresponding to the size of the *insula* intended for public buildings was relocated as part of the change.

If the forum at Cosa was relocated, it means that the colony's urban fabric underwent an upheaval at some stage and has further consequences for our understanding of the site. When and why would such an event have occurred? The most likely time is the early 2nd c., known to be a period of great change and renewal at Cosa. A new contingent of 1000 colonists was reportedly sent to the colony in 197 following the ravages of the Hannibalic War.[35] This could represent something approaching a re-foundation. This moment seems to have marked the start of intense building activity extending through the first half of the 2nd c., with the construction of housing,[36]

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31 Brown, Richardson and Richardson 1993, 13. No specific dating evidence for the cistern was provided.
32 Ibid. 31-50; Fentress *et al.* 2003, 14.
33 Brown, Richardson and Richardson 1993, 40-41.
34 Ibid. 2-8.
35 Livy 33.24.8-9.
36 Brown, Richardson and Richardson 1993, 57-106; Bruno and Scott 1993, 27-30 and 59-60; Fentress *et al.* 2003, 19.

temples[37] and sewers, and the paving of the streets.[38] For present purposes, the most relevant point is the levelling of a large area of the original forum where four large atrium houses came to be built.[39] Thus the forum relocation had occurred by the early 2nd c. As the first phase in the colony's history to have seen intense building, when resources for seeing the project through appear to have been available, it recommends itself as the moment for the move of the forum.

The reasons for the change were probably multifarious. Practically, the reduction of the forum offered more space for the building of houses. Although it was necessary to level part of the original forum in preparation for their construction, we can gain an idea of the natural terrain prior to this activity by gauging the heights of Streets 5 and 6 which flank the original forum's SW and NE borders. A height difference of up to *c.*2 m suggests that the original forum had a slope rising up to the southwest, hardly a desirable quality, which may have influenced the decision,[40] since the existing forum was laid out on the flattest terrain the intramural area had to offer.

Yet there appears to be more to it than just these factors. The early 2nd c. saw the comprehensive extinction of the Punic threat that had determined the original choice of Cosa's coastal position, and the colony's strategic rôle must also have evaporated. It is perhaps then relevant that the relationship to the port gate enjoyed by the old forum was severed under the new arrangement. It is almost as if the town was trying to disassociate itself from its obsolete military rôle in an attempt at redefining itself. The singular main entrance of the excavated forum was at the crossroads of the two streets entering from the landward gates, a reversal in focus of the former scheme, which seems to reflect a new interest in the town's territory. Excavation and survey evidence from the harbour and hinterland reveal that new commercial enterprises were being established there from the early 2nd c. onwards — most visibly, a wine export business.[41] The port facilities were augmented during this period,[42] and their involvement in the economic activity of Cosa's territory is confirmed by a sudden and massive increase in the number of locally-produced wine amphorae deposited in the harbour. The economic importance of the roads leading from the territory to the port increased as a result, but the problem for the town, perched as it was on a hilltop, was that the traffic using the roads had no need to enter its gates. The only physical connection the town had to this network was through its landward entrances, which could explain the switch in focus reflected in the scheme of the excavated forum. What remained consistent in the planning of both of Cosa's fora, however, is that in both phases the most important intramural streets determined how and where they were laid out.

The seductiveness of the theory comes from the transformation of planning idiosyncrasies into rational and intelligent responses when viewed in the context of the forum's relocation. It will prove difficult, however, to find archaeological confirmation of the theory. The streets were first paved in the 2nd c., which probably means that 3rd-c. street surfaces, such as existed, comprised little more than compacted soil. The suggested earlier course of Street P was almost certainly built over, destroying any earlier surface. The area of the original forum was largely levelled and built over, activities which would have removed potential traces of a former occupation. Conversely, the meagre traces of 3rd-c. occupation produced by the excavations seem to reflect urban underdevelopment; in which case the reason why the forum could be relocated in the 2nd c. is because, architecturally speaking, nothing stood in the way.

If the theory is accepted, this means that none of the structures on the excavated forum predates the early 2nd c., apart from the *aerarium* or *carcer* at the corner of Streets 7 and Q. This does

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37 Brown 1960; Fentress *et al.* 2003, 29-31; Taylor 2002.
38 Brown 1980, 42; Brown, Richardson and Richardson 1993, 120-22.
39 Fentress *et al.* 2003, 14-26.
40 I am grateful to E. Fentress for this suggestion and for the time she took to discuss my ideas.
41 Peacock 1977; McCann 1987, 32-33 and 171-75; Attolini, Cambi and Castagna 1991; Cambi 2002, 142-43.
42 Brown 1980, 50-51.

not create insurmountable problems since the summary in the most recent Cosa volume says that the only identified 3rd-c. structures are the town walls, the *aerarium/carcer*, the comitium, and a small enclosure adjacent to it.[43] The enclosure was abandoned at an unknown point after 222,[44] meaning it could still be a 2nd-c. structure. No datable material from the comitium itself was presented in the original publication to support its 3rd-c. date.[45] We might expect a 3rd-c. comitium at Cosa simply because the examples at Fregellae, Alba Fucens and Paestum are dated to this period, even though supported (in each case) by very little published evidence; the matter is discussed further below.

Street widths

The major streets of many orthogonally-planned Greek cities are wider than minor ones. This tradition began in archaic times, typified by Poseidonia, and continued throughout the period under discussion; it is also found, for example, at Marzabotto.[46] The main *plateiai*, which stretched from gate to gate, were generally wider than the *stenopoi* placed between the *insulae*. At Priene, the widest street was the main E–W axis between the gates, and all the streets in the area of the agora were wider than those further away.[47] Although the latter feature is slightly unusual, it serves to demonstrate the aim behind this convention: streets with greater widths mostly appear to be those which would have seen more traffic.

The data relating to street widths in Latin colonies are lacunose,[48] but from the available information it appears as though the Greek convention was imitated to some degree. At Alba Fucens, a stretch of road in front of the comitium, corresponding to the intramural *via Valeria*, was measured at 8.6 m wide.[49] The main *decumanus* of the colony is 4.3 m wide, the main *cardo* 3.5 m wide, with secondary streets estimated as 2.4 m wide.[50] Paestum is not pertinent because the street system remained unchanged with the Roman foundation, surviving as a relict of 6th-c. Greek planning.[51] At Cosa, all the streets were 6 m wide except for the 9-m-wide avenues that led to the *arx* and the eastern height from the forum. The generally uniform street width at Cosa is unusual and may relate to its small size. The wider roads that led to the sanctuaries on the heights were described as Brown as being "sacred ways";[52] he was clearly modelling them on Rome's *via Sacra*. There are Greek precedents: at both Athens and Miletus, exceptionally wide streets could have functioned as processional streets.[53] E. Fentress interprets the extra width of the two Cosan streets as due to the presence of atrium houses that lined them[54] (see discussion below, pp. 139-40). No data have been published on the street widths at Fregellae. Based on the limited data available for Roman towns in Italy of the 2nd and 1st c., Conventi argues that all had wider main streets than secondary ones.[55]

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43 Fentress *et al.* 2003, 14.
44 Sewell 2005, 109-10.
45 Brown, Richardson and Richardson 1993, 26.
46 Hoepfner and Schwandner 1994, 301; Mertens and Greco 1996, 257; Lippolis 2005, 143-46.
47 Hoepfner and Schwandner 1994, fig. 187.
48 Cf. Conventi 2004, 236-38.
49 Mertens 1969a, 62-63.
50 Conventi 2004, 237-38. The use of the terms '*decumanus*' (E-W running street) and '*cardo*' (N-S running street) has a long tradition in works on Roman urbanism. There is direct testimony to them being used by the Romans only in land surveying (Lackner 2008, 227 n.111, with further references), with a single exception of an urban *decumanus* known from twin inscriptions (*Insc. Aq.* 842 and 3495) at Aquileia: Tiussi 2006, 349 n.29 with further references.
51 Greco and Theodorescu 1996, 23; 1999, 4-6.
52 Brown 1980, 47.
53 Coulton 1976, 177-78; Hoepfner and Schwandner 1994, 20-21 and 308.
54 Fentress 2000a, 16-17; Fentress *et al.* 2003, 25-26.
55 Conventi 2004, 236-38.

The proportions of *insulae*

The majority of Greek cities in Magna Graecia and Sicily were archaic in origin. They provided examples from which Roman planners could have taken their ideas, but the latter seem not to have done so. This is shown by the proportions of *insulae* in *ex novo* Latin colonies. The archaic Greek cities had very long residential blocks (e.g., Poseidonia) with *insulae* with a ratio of more than 1 : 8. Over time, however, the tendency was for *insulae* to become shorter in length. An exception to this rule is Kassope (fig. 2), which was built in the 4th c. with very long blocks. This seems to have been a phenomenon typical of NW Greece: it has been noted that other 4th-c. foundations in Epirus, Acarnania and Illyria continued to use long *insulae*.[56] Generally, however, the trend was to use ever shorter blocks. The last colony to be founded on Italian soil was Herakleia Lucana in 433, where aerial photographs suggest that its *insulae* had a ratio of just over 1 : 3.[57] Morgantina's planning is believed to be 5th c., and here the blocks also have a proportion of just under 1 : 3 (fig. 11).[58] The last Greek colony in Sicily may have been Tyndaris, founded in 396 B.C.,[59] although its street network may date from the late 4th or early 3rd c.;[60] here the ratio is *c.*1 : 2.5.[61]

The *insulae* at Alba Fucens have proportions of between 1 : 2 and 1 : 3.[62] The town has proportionately the longest known *insulae* of an *ex novo* Latin colony.[63] At Cosa, the standard residential blocks in the NW half of the town were less than 1 : 3. Ariminum, a Latin colony founded in 268, has blocks with a ratio of 2 : 3.[64] These figures are generally comparable to Greek foundations of the same period.[65] Apart from the case of NW Greece, they tended to be less than 1 : 3, although during the later Classical and Hellenistic periods there was experimentation in the shorter *insula* sizes of new Greek towns;[66] 4th-c. Priene, for example, has *insulae* with a ratio of 3 : 4. The Romans continued the process of shortening residential blocks in their new towns until, eventually, the square *insula* developed.[67] Some of the *insulae* at Falerii Novi (founded post-241) have been shown to be near-square, but they are believed to date from a phase of urban development some time after the foundation.[68] Some of the blocks at Fundi are reconstructed as square.[69]

The first Latin colony known to be designed with square *insulae* is probably Placentia,[70] founded in 218, then re-founded in 190 after the first attempt failed.[71] Rectangular *insulae* (with the majority having proportions of 2 : 3 or less) remained the most popular form for new colonies until the 1st c., when square *insulae* were used as often as rectangular.[72] The use of ever shorter blocks created more cross-streets, which made communication between different parts of the town easier and

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56 Hoepfner and Schwandner 1994, 306.
57 Giardino 1996, 63; Mertens and Greco 1996, 260-61.
58 Bell 1988, 314, n.12; Antonaccio 1997, 186.
59 Diod. Sic. 14.78.5-6.
60 La Torre 2005, 120.
61 Bernabò Brea and Cavalier 1965, 205-6.
62 Based on the lengths published by J. Mertens (1988, 102 n.43), who believed the average dimensions to be 90 x 35 m. A variety of schemes have been proposed in secondary literature: Lackner 2008, 21-22, especially n.26, with further references.
63 Cf. Conventi 2004, 229-33.
64 Torelli 2007, 179.
65 Cf. Torelli 1990, 56.
66 Hoepfner and Schwandner 1994, 305-12.
67 Shipley (2005, 351) attributes the square *insula* to Greek town-planning of the Classical period. This argument appears to be based on a misreading of his source (Mertens and Greco 1996, 260-61) on the *insulae* at Herakleia Lucana (*c.*433), which he describes as "squarish" but which in fact were reported to be *c.*55 x *c.*175 m.
68 Keay *et al.* 2000, 82-87; 2004, 230-31; Millett 2007, 75.
69 Cassieri and Quadrino 2006, 178 fig. 1.
70 Torelli 2007, 179.
71 Livy 21.25.2; 37.46.9-11.
72 Conventi 2004, 201-5, 229-33. Cf. Gros 2007; Torelli 2007, 179-98.

may well have been the chief reason for the trend. As a consequence, however, a greater proportion of the town's surface area was taken up by streets. The proportions of *insulae* in Greek cities demonstrate a trend to make them shorter as time went on, and the blocks in Latin colonies had proportions like those of contemporary Greek practice. Like the Greeks, the Romans generally continued to shorten the length of *insulae* in their new foundations during the 3rd and 2nd c.

Inter-relations of Greek and Roman architecture: fortifications

Fortification architecture is useful in demonstrating the extent to which the Romans were adopting contemporary Greek ideas. Others have already suggested that in the Latin colonies the Romans adopted several features of 4th-c. Greek fortification architecture. I would suggest that innovations made by the Greeks during this period were adopted quickly by the Romans.

Defence is particularly relevant for our period because it was from the mid-4th c. onwards that curtain walls started to become a standard feature of Greek cities.[73] This is generally believed to be a response to developments in siege techniques,[74] and is referred to by Aristotle,[75] although it might also be linked with the growing significance of city walls as symbols of urban identity.[76] The development is interesting in light of the Roman evidence: the period when walls began to become a ubiquitous feature of Greek cities is also that when our four Latin colonies were founded. As far as we know, all the Latin colonies had walls, and analysis of the defences at Cosa and Alba Fucens indicates that they were one of the first elements of the town to be constructed, or reconstructed.[77] The earliest recognisable phase of Paestum's city wall dates to the second half of the 4th c., but the majority of the standing remains are assigned to the 3rd-c. Latin colony.[78] The defences of these Latin colonies were directly influenced by the most current ideas in Greek fortification architecture,[79] as is revealed by four main elements:

1. The arch (arched gate)

The idea that the arch came to the Romans via the Etruscans was dispelled in the 1950s by G. Lugli.[80] The earliest examples are Greek, but it is difficult to date them accurately. One study suggests the oldest arched gate is the W gate of Kassope from the mid-4th c., soon to be followed by those at Priene.[81] The Porta Rosa at Velia is believed to represent an early arch;[82] it has a *terminus post quem* date of 340 but may well belong to a later rebuild. Other mid-4th- to 3rd-c. examples are found across the Aegean and the Adriatic area.[83] By the 3rd c., arched gates were being constructed in the walls of Roman towns. One of the earliest examples is the *Porta Sirena* at Paestum, which probably dates to the founding years after 273;[84] the *Porta di Giove* at Falerii Novi (post-241) is also a very early example,[85] although recent analysis has questioned whether the fortifications were

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73 Lawrence 1979, 120-21.

74 Greco and Torelli 1983, 290.

75 Arist., *Pol.* 1330b32-1331a18.

76 Sconfienze 2005, 15; Becker 2007, especially 197-203. A problem of associating city walls with urban identity is that there were many smaller settlements, such as forts, that also possessed impressive fortifications but which were clearly not perceived as urban. A defensive wall was not always associated with urbanity.

77 Benvenuti 2002, 199; Liberatore 2004, 132.

78 Winter 1971, 25-26, especially n.51; Brands 1988, 151-57; Torelli 1999a 18-19; D'Ambrosio 2000, 184; Rouveret and Theodorescu 2000, 194; Sconfienza 2005, 77-85; Greco 2008, 15; Torelli 2008, 272.

79 Brands 1988, 15; Sconfienza 2005, 85.

80 Lugli 1957, 355-65; Brands 1988, 36.

81 Lawrence 1979, 258; Dornisch 1991, 325.

82 Adam 1988, 173-77; Brands 1988, 36.

83 Adam 1988, 176-77.

84 Brands 1988, 160; Sconfienza 2005, 79. The gate had an earlier phase, recently dated to the late 4th c.: Greco 2008, 19.

85 Ibid. 36.

contemporary with the town's foundation.[86] It seems likely that at least the NE gate at Cosa was arched.[87] At most, then, there is a 60-year gap between the earliest known Greek example and the first attested use in a Roman context.

2. A gate court with two sets of gates

This consisted of a set of gates mounted in the curtain with a walled courtyard behind which, in turn, was sealed at the rear with a second set of gates. This device allowed assailants within the walls into an enclosed courtyard so that they could be attacked from above. The rising popularity of this form of gate during the 4th c. may well be due to its usefulness as a countermeasure to artillery,[88] a new element of siegecraft during the period.[89] Gates were particularly vulnerable to artillery assault, but the second gate at the rear of the court could be struck directly only through a very narrow angle. No known Greek example is earlier than the 4th c.,[90] and the first Roman case, possibly from Rome itself, dates from the 4th c.[91] This form of gate is found in the defences of Alba Fucens, Cosa and Paestum.[92]

3. The portcullis

Archaeology provides no clue as to when the portcullis was invented. Aeneas Tacticus was the first to refer to a military use for the gate in the mid-4th c.[93] The portcullis is presumed to be a Greek invention,[94] and the earliest example in a Greek context is from the later 4th c. Telltale slots for them have been found in the gateways at Alba Fucens and Cosa.[95] The adjective from the Greek name for the gate, πύλη καταρράκτης ('down-rushing gate'), was adopted by the Romans in the Latinised form of *cataracta*.[96]

4. Artillery towers

Although the employment of towers on a wall circuit is attested in the archaic period, from the mid-4th c. onwards the Greeks built towers to house artillery for defence against siege.[97] The earliest towers on any Roman wall circuit are those of Cosa.[98] Although Cosa's towers have long been thought to be influenced by Hellenistic design,[99] a more recent interpretation suggests they were built for small artillery pieces.[100]

The dating of these features in Greek contexts may not accurately correspond to the moment they were invented. The value in their comparison is that in each of the four cases there is a short period between the dating of the earliest Greek and Roman examples, which implies a pattern.

The architecture of political assembly-places on the agora/forum

Assembly-places are found on both Greek and Roman market-places from the late 4th to the 3rd c. Earlier scholars have proposed that the architecture employed by the Romans for these structures

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86 Keay *et al.* 2000, 85.
87 Brown 1980, 19; Brands 1988, 116.
88 Winter 1971, 219.
89 The catapult was alleged (Diod. Sic. 14.42.1) to have been invented by Dionysius I of Syracuse, and was known to Aeneas the Tactician (32.8).
90 Winter 1971, 217.
91 Brands 1988, 196-97. Cf. Sconfienza 2005, 18.
92 Ibid. 20.
93 Aen. Tact. 39.3; Winter 1971, 264.
94 Lawrence 1979, 263.
95 Brown 1980, 19; Brands 1988, 20, 82-84 and 114-17.
96 Lawrence 1979, 263.
97 Winter 1971, 152-58.
98 Benvenuti 2002, 199.
99 Salmon 1969, 33; Brown 1980, 19.
100 Benvenuti 2002.

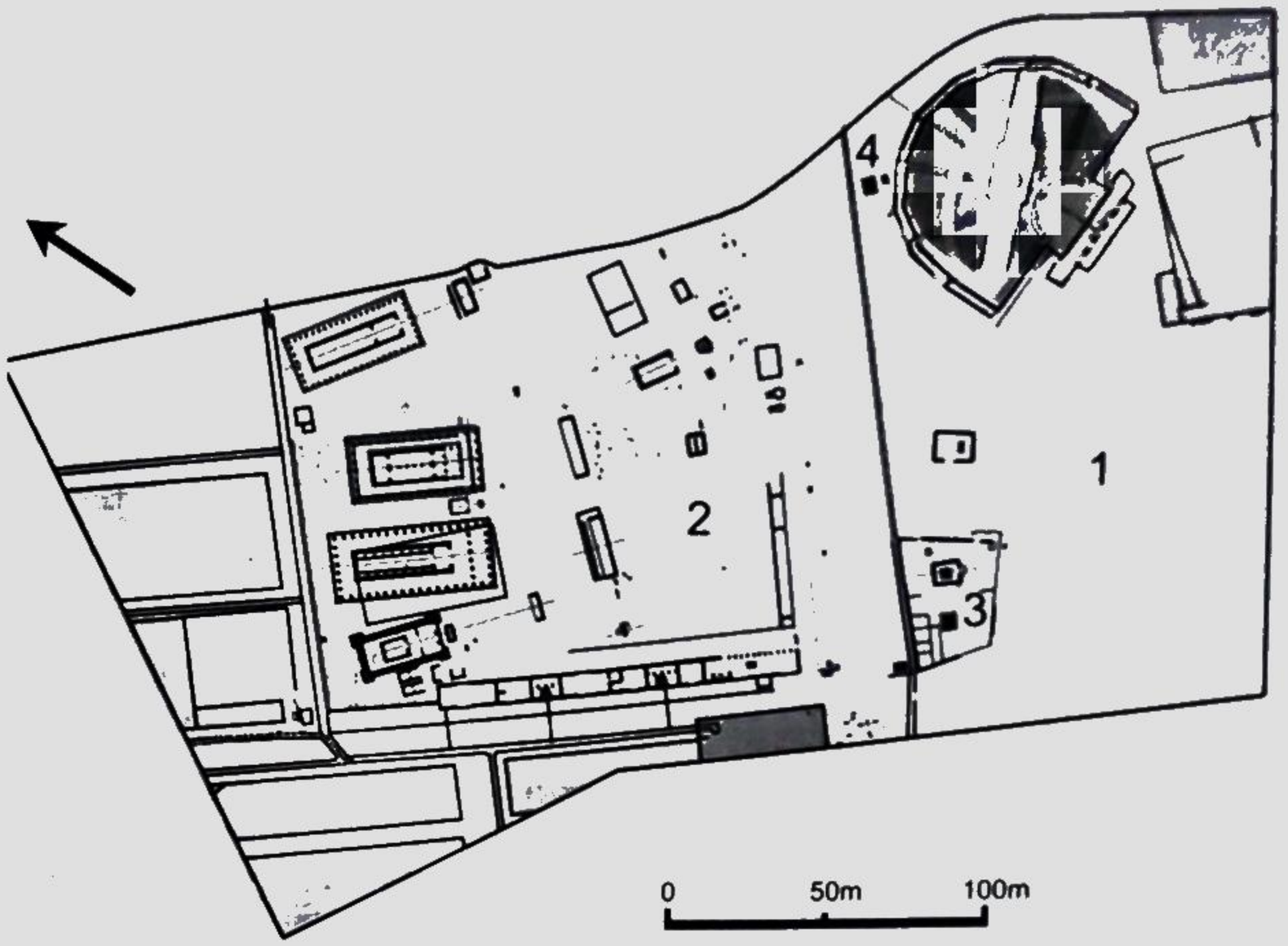


Fig. 12. Metapontum: 1. Agora. 2. Urban sanctuary. 3. *Temenos* with shrines dedicated to Apollo and Aristeas. 4. Shrine dedicated to Zeus Agoraios. 5. Circular ekklesiasterion and subsequent theatre (after D. Mertens and Greco 1996, 253).

was derived from a Greek model. Here we will introduce the agoras and fora of some the key sites employed for the comparison. On the forum of each of the four Latin colonies was a comitium, a structure with a circular stepped area serving for political assembly. On a Greek agora, however, it was apparently far from standard to have a mass assembly-place in a defined architectural form.[101]

One of the earliest Greek examples in Italy is the agora at Metapontum (fig. 12), an Achaian colony founded in the later 7th c. on the coastal plain of what is now Basilicata.[102] The agora adjoined a large urban sanctuary where four peripteral temples date from the 6th and 5th c., two of them at least possibly dedicated to Apollo and Hera.[103] The agora itself was dominated by a circular, seated assembly area that has been interpreted as the colony's ekklesiasterion. Its first phase dates from the 7th c. With a diameter of 62 m, it is both the oldest and the largest circular assembly-place in the Greek world,[104] estimated to have seated up to 8,000 people.[105] In the 5th c., tiers of stone seats were placed on an earth embankment. The structure was transected by a wide avenue, and there was a large rectangular space at its centre. The axis of the avenue deviated from that of the street system. The structure was directly attached to an enclosure within which a *horos* was found with inscription to Zeus Agoraios.[106] The presence of this deity on the Pnyx at Athens, as well as on other agoras and meeting places in Greek cities,[107] is an indication of how Zeus in this form served as a protector of the community's political and commercial activities. The shrine was probably reconstructed around the mid-4th c.[108] D. Mertens has given a well-documented and

101 Kenzler 1998, 246; cf. Krause 1976, 57.
102 De Siena 2001a, 22-29
103 Id. 1998, 162-64.
104 Mertens and Greco 1996, 254; Mertens 1998, 130.
105 Mertens 1982, 101.
106 De Siena 1998, 151-56.
107 Schwabl in *RE*^{2} X.A, 19, cols. 256-59.
108 De Siena 1998, 151-53.

judicious discussion on the potential function of the circular structure, but ultimately leaves the interpretation open.[109] No relevant literary or epigraphical sources are available to assist in comprehending its function, but the close proximity of Zeus Agoraios suggests that it was used as some form of political or judicial assembly. The presence of a rectangular 'orchestra' at its centre means that the holding of some form of games or other performances such as cult-dances cannot be excluded, and it may in fact have been multi-functional.[110] At the end of the 4th c. a theatre was built directly over the older structure. The theatre has been described as a direct forerunner of the Roman theatre since it was built on level ground and the *cavea* was supported by an earthen bank with circular retaining wall.[111] The theatre had a different orientation again but one that still deviated from that of the town plan. Although the new building had the architectural form of a theatre, the fact that it replaced an earlier assembly-place possibly indicates a continuity in function.

Still closer to Rome, Poseidonia was founded during the 6th c. as a sibling colony of Sybaris.[112] A group of Lucanians took control of the town in *c.*420,[113] although Greek apparently continued to be the dominant spoken language.[114] The Latin colony of Paestum was founded within its walls in 273, and the transition from a Lucanian/Greek settlement to one established by Rome has left its chief mark on the archaeological record in the area of the agora/forum (fig. 7). The original Greek agora was vast, covering an area of *c.*8.4 ha (fig. 13).[115] The site is dominated by three great temples from the 6th and 5th c. in the two sanctuaries directly north and south of the original agora.

Excavation has uncovered some structures belonging to the agora, notably a circular assembly-place, tentatively dated to the first half of the 5th c. (figs. 13-14).[116] The structure, labelled as a bouleuterion or ekklesiasterion, was cut into bedrock to create tiered seating, estimated to have held between 900 and 1,400 people.[117] At the end of the 4th c., a stele written in Oscan was placed within the edifice.[118] The dedication is to Zeus or, more specifically, to a political aspect of the god, which M. Torelli has interpreted as being Zeus Boulaios or the 'god that assists the council'.[119] The inscription is noteworthy because of the town being under Lucanian control at the time it was erected.

Circular assembly-places appear to be specific to Magna Graecia and Sicily; the only possible exception is a circular structure found in a sanctuary at Samothrace.[120] The remains of a circular seated structure with a diameter of 48 m, interpreted as an ekklesiasterion, were unearthed at Agrigento. It is estimated to have seated up to 3,000 people, and has been dated alternatively to the 3rd[121] or as early as the 5th c.[122] Agrigento is one of the few cities where an inscription confirms the existence of such a structure.[123] Why circular assembly-places have not been found in the cities of the Greek homeland is unclear, but it has been suggested that it may be due to the specific colonial context of the West.[124] Archaeologists frequently assign Athenian terms like bouleuterion, ekklesiasterion and prytaneion to public structures. These are often based purely on a building's architectural

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109 Mertens 1982, 102-16.
110 Cf. Greco 2008, 238-39.
111 Mertens 1998, 138.
112 Greco 1996a, 236; Greco and Theodorescu 1996, 21.
113 Greco 1996b, 5; cf. Crawford 2006.
114 Torelli 1999b, 4.
115 Greco 2008, 17. Other estimates are 10 ha (Greco and Theodorescu 2000, 90) and 12.25 ha (Torelli 1999a, 15).
116 Greco and Theodorescu 1983a, 79-81; 1983b, 97; Pedley 1990, 78-80.
117 Mertens and Greco 1996, 254. E. Greco (2008, 238) has recently stated the capacity to have been *c.*1700.
118 Greco and Theodorescu 1983a, 137-41.
119 Torelli 1999a, 7.
120 McCredie 1968, 216-34.
121 De Miro 1967, 165-68.
122 Greco and Theodorescu 1983a, 80; Kenzler 1998, 242.
123 *IG* XIV 952.
124 Mertens and Greco 1996, 254.

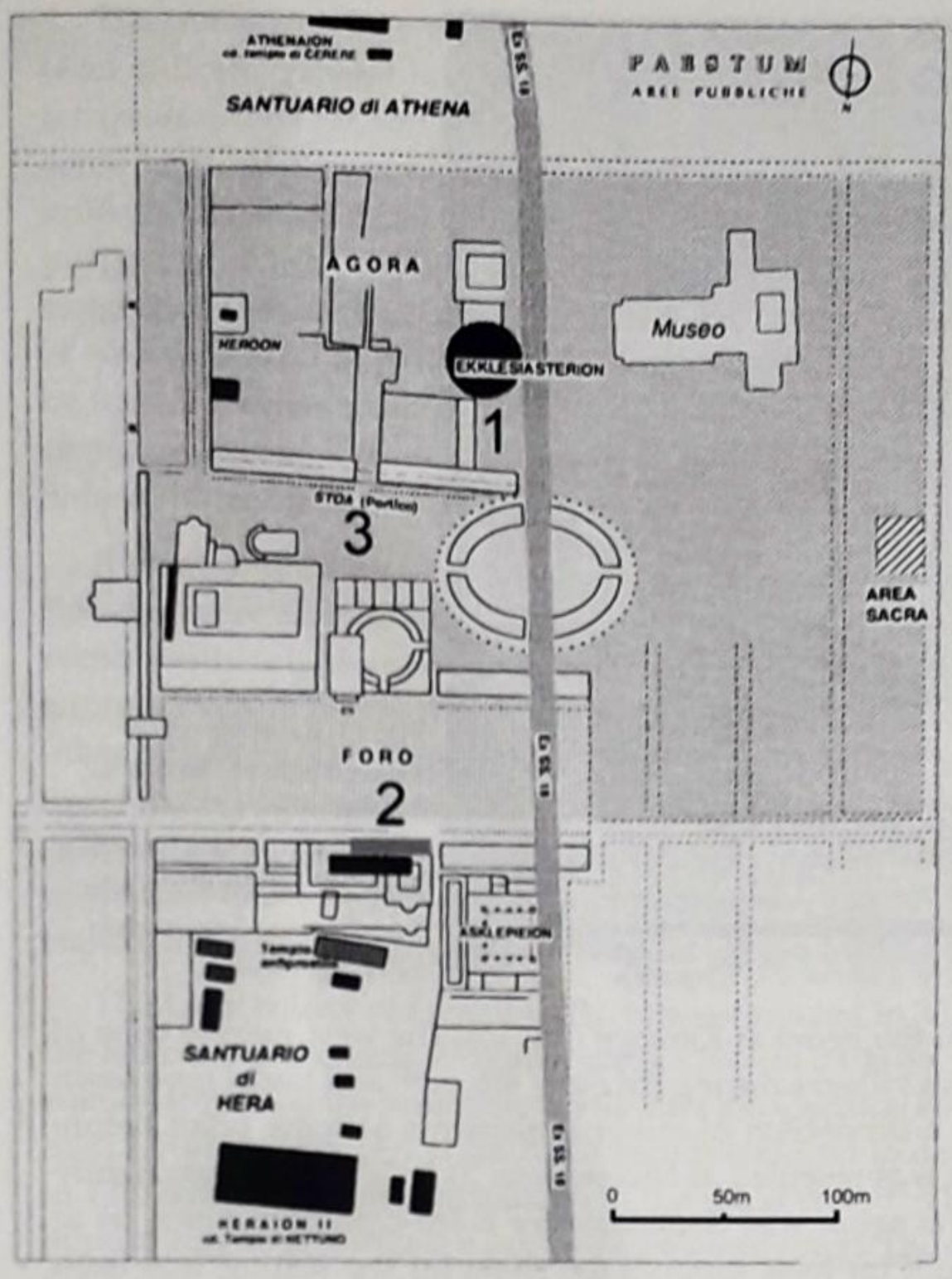


Fig. 13 [left]. Poseidonia: the agora (grey stippling). 1. bouleuterion / ekklesiasterion. 2. possible late 4th-c. stoa (shaded grey). 3. late 4th-c. stoa (after Greco and Theodorescu, "L'agora. Premessa," in Greco and Longo 2000, 86 fig. 1).

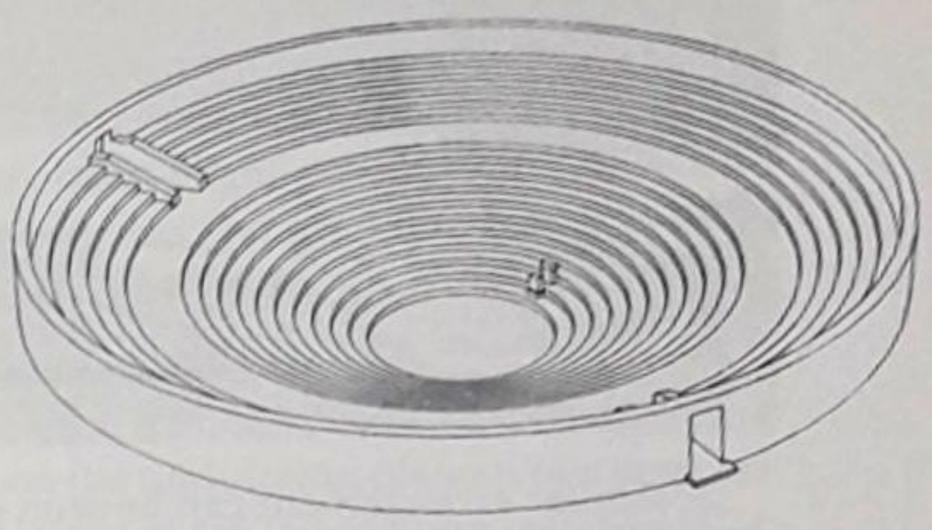


Fig. 14 [above]. Poseidonia: one possible reconstruction of the circular assembly-place (from Greco and Theodorescu 1983, fig. 31. Reproduced by kind permission of the École française de Rome).

form, and even the few inscriptions that refer to such structures do not prove that democracy was present. It must be emphasised that the constitutions of the western colonies are barely known.[125]

Theatres could also be a feature of agoras, like that found at Morgantina (fig. 11).[126] The town is believed to have been founded in the mid-5th c., replacing a nearby archaic settlement,[127] the new town being either a Sikel or a Greek foundation.[128] Syracuse exercised hegemony over it from the beginning of the 4th c. until it fell in 211.[129] The majority of the buildings on the agora have been dated to the reign of Hieron II. The theatre occupied the SW area of the market-place and, similarly to Metapontum, construction of the theatre on level ground necessitated the erection of a substantial retaining wall to support an earthen bank for the seating. Fourteen rows of seats extend upwards from the orchestra, above which wooden seating may have been employed.[130] The foundations of the stage building were very deep and the excavators suspect that it had two storeys. Coins of Timoleon found in the earthen bank provide a *terminus post quem* for the structure. Moulds and other decorative elements discovered in the foundations and within the earthen bank indicate there may have been a predecessor on the same spot.[131]

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125 Sartori 1996; Greco 2000, 154-55.

126 Information regarding the agora of Morgantina and its structures is taken from: Stillwell and Sjöqvist 1958; Sjöqvist 1959, 1962 and 1964; Stillwell 1961 and 1963; Bell 1984 and 1988; Edlund-Berry 1990; Tsakirgis 1995.

127 Stillwell and Sjöqvist 1958, 156.

128 Tsakirgis 1995, 131.

129 Bell 1988, 321.

130 Sjöqvist 1962, 137-38.

131 Stillwell 1963, 163.

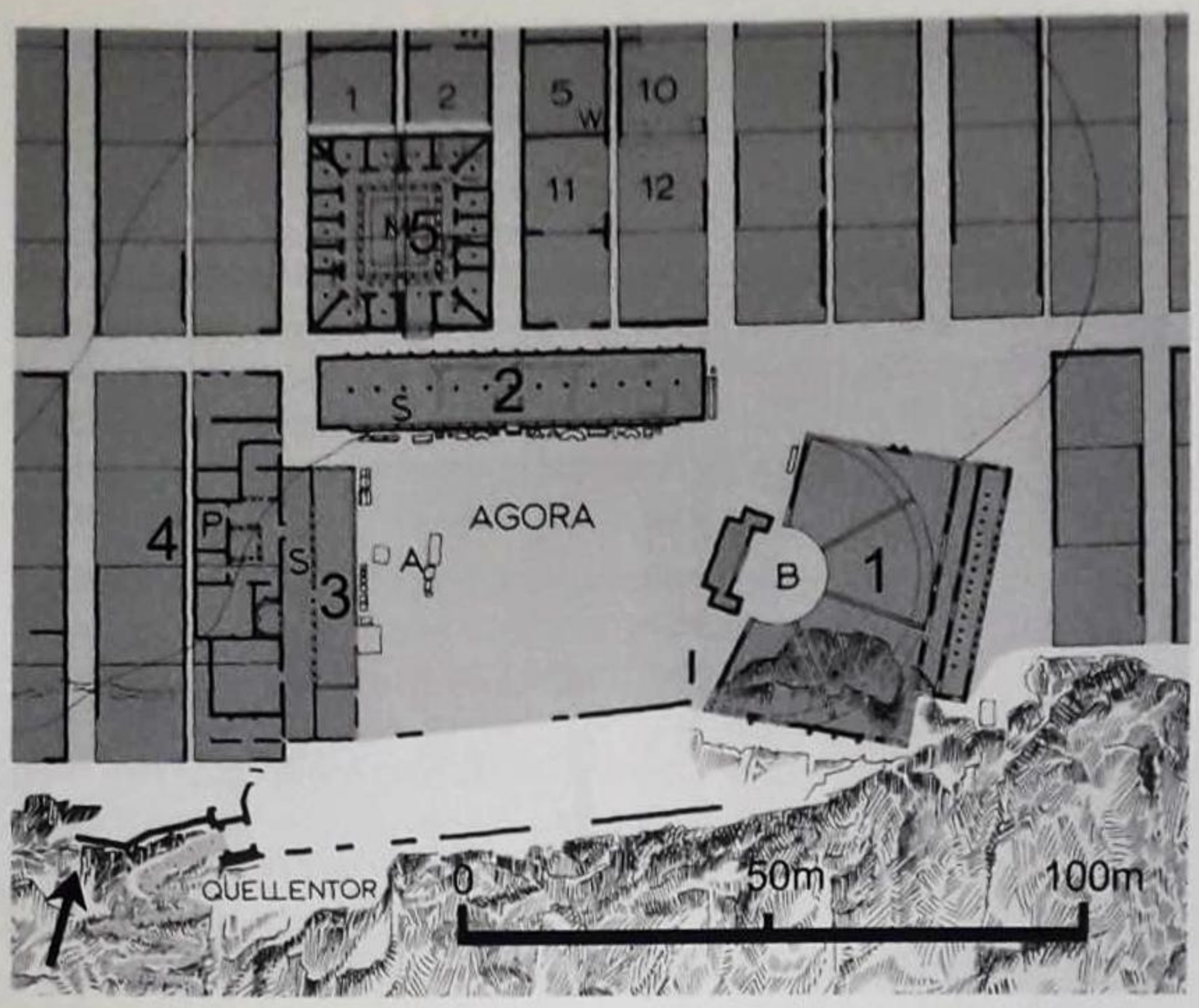


Fig. 15. Kassope: reconstructed plan of the agora. 1. theatre, 3rd c. 2. stoa, end of the 3rd c. 3. stoa, possibly 2nd c. 4. '*prytaneion*' (after Hoepfner and Schwandner 1994, fig. 96).

A similar arrangement can be seen on the agora at Kassope (fig. 15). The west Epirote tribe of the Kassopians was referred to as living in villages during the early 4th c.,[132] and the *ex novo* town is believed to have been founded from a synoecism of minor settlements at some point before the mid-4th c.[133] Because the population was resettled at Nicopolis in 31 B.C.,[134] a predominantly Hellenistic town has been preserved. The agora was dominated by a 3rd-c. theatre. Since, as at Metapontum and Morgantina, it was built on level ground, the slope for the seating was fashioned from an earthen bank supported by retaining walls.[135] A small stoa was attached at the rear. Although the theatre had a stage building, it was nevertheless interpreted as a bouleuterion or odeion.[136] These interpretations are influenced by the fact that there is another larger theatre within the town (fig. 2). The structure on the agora was constructed with a different orientation to that of the streets and is asymmetrical in plan.

There are great difficulties in establishing the functional character of these assembly-places. Only a handful of epigraphical and literary references exists to buildings called ekklesiasteria[137] and they do not provide information on how these structures functioned. The so-called bouleuterion on Kassope's agora could have seated up to 2,000 people, making it somewhat large for meetings of the council of this small town. The surface area of urban Poseidonia is nearly three times as large, but its circular assembly-place could have seated a maximum of 1,400 persons. Metapontum was up to a third bigger than Poseidonia but its ekklesiasterion seated up to 8,000. In each case we cannot say whether the structures were intended for meetings of the entire citizen body, their representatives, or, on occasion, both.[138]

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132 Ps.-Skylax 31.
133 Dakaris 1971, 35; Hoepfner and Schwandner 1994, 115-16.
134 Hoepfner and Schwandner 1994, 117; Schwandner 2001.
135 Hoepfner and Schwandner 1994, 140 and 339, n.316.
136 Dakaris 1971, 88-89; Hoepfner and Schwandner 1994, 139-41.
137 Kenzler 1998, 246, n.62.
138 Cf. Krause 1976, 57-58; Greco 2000, 154-56.

The connection between the circular assembly and the shrine of Zeus Agoraios at Metapontum is an indication that it had, at least in part, a political or judicial function.[139] All of the structures introduced thus far could also have been used during religious festivals or for performances of some kind. At Kassope, however, there was a large theatre on the edge of town, and it seems unlikely that such a small settlement had a need for two theatres. It is more likely, then, that the purpose of the structure on the agora was at least partly linked with political assembly. This is a suggestion that has been made for the theatre on the agora of Morgantina.[140] The need for this kind of structure to be on the agora is demonstrated by the fact that new architectural solutions had to be found in order to erect them on level ground. Yet the presence of stage buildings places such structures within the category of a theatre. Theatres are also found adjacent to the agoras at Argos, Side and Mantineia.[141]

It seems more than coincidence that the theatres on the agoras of Metapontum, Morgantina and Kassope were all built to deviate from the orientation of the local street grids (Metapontum faces south-southeast, Morgantina east-northeast, and Kassope west). In each case there was an apparent requirement for the structure to be on the agora and to have a unique orientation in relation to other buildings. The divergence in orientation from the town-plan might possibly have been due to religious requirements. Considering the number of Greek agoras that are known archaeologically, relatively few have assembly-places in a recognisable architectural form. This is important as we turn to the Roman evidence since the comitium, a circular assembly-place, *was* apparently a standard feature of Latin colonial fora during the Middle Republic.

The Latin colony of Fregellae (fig. 6) was founded in 328 on the undulating plateau of a spur on the left bank of the Liris.[142] With a surface area of *c.*100 ha, it is one of the larger Latin colonies.[143] It was destroyed by the Samnites shortly after the Caudine Forks disaster,[144] and re-founded probably in 313, from which period the town plan is believed to date.[145] The colony revolted against Rome in 125, which led to its destruction in the same year.[146] This has provided archaeologists with an opportunity to investigate a purely Republican town. The excavations have focussed on the area of the forum (fig. 16). The 3rd-c. comitium was exposed at its N end, comprising a circular, stepped *cavea* (found in poor condition), with the foundations of a rectangular curia attached to the N side.[147] The comitium was probably restructured during the 2nd c. when the curia was augmented and a podium added to the façade that overlooked the *cavea*. A colonnade and a series of rooms were also built around the curia. The whole complex was demolished immediately prior to the town's destruction.

The major excavations carried out at Alba Fucens by the Institut Historique Belge de Rome under J. Mertens focussed on the central public areas including the forum (fig. 17).[148] At the SE end of the market-place the majority of the standing remains were found to date from the 1st c. onwards. A comitium discovered at the NW end was only partially excavated, and then only with a series of *c.*1.2-m-wide trenches that were set on a diagonal to the axis of the walls.[149] The plan is

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139 Cf. Coarelli 1985, 11-21.
140 Kolb 1981, 86.
141 Ibid. 88-91.
142 Livy 8.22.1.
143 Coarelli 1998a, 53.
144 Livy 9.12.
145 Coarelli 1998a, 31, 55-56.
146 Ibid. 41-45; Rawson 1998.
147 Coarelli 1998a, 56-68; Ferraby *et al.* 2008, 129.
148 For excavation reports and descriptions of the remains, see De Visscher and De Ruyt 1951; De Visscher *et al.* 1954; De Visscher, Mertens and Balty 1963; Mertens 1968, 1969a, 1969b and 1988; Balty 1969; Torelli 1991; Liberatore 2004.
149 Mertens 1968, 208-17; 1969a, 98-101; 1988, 95.

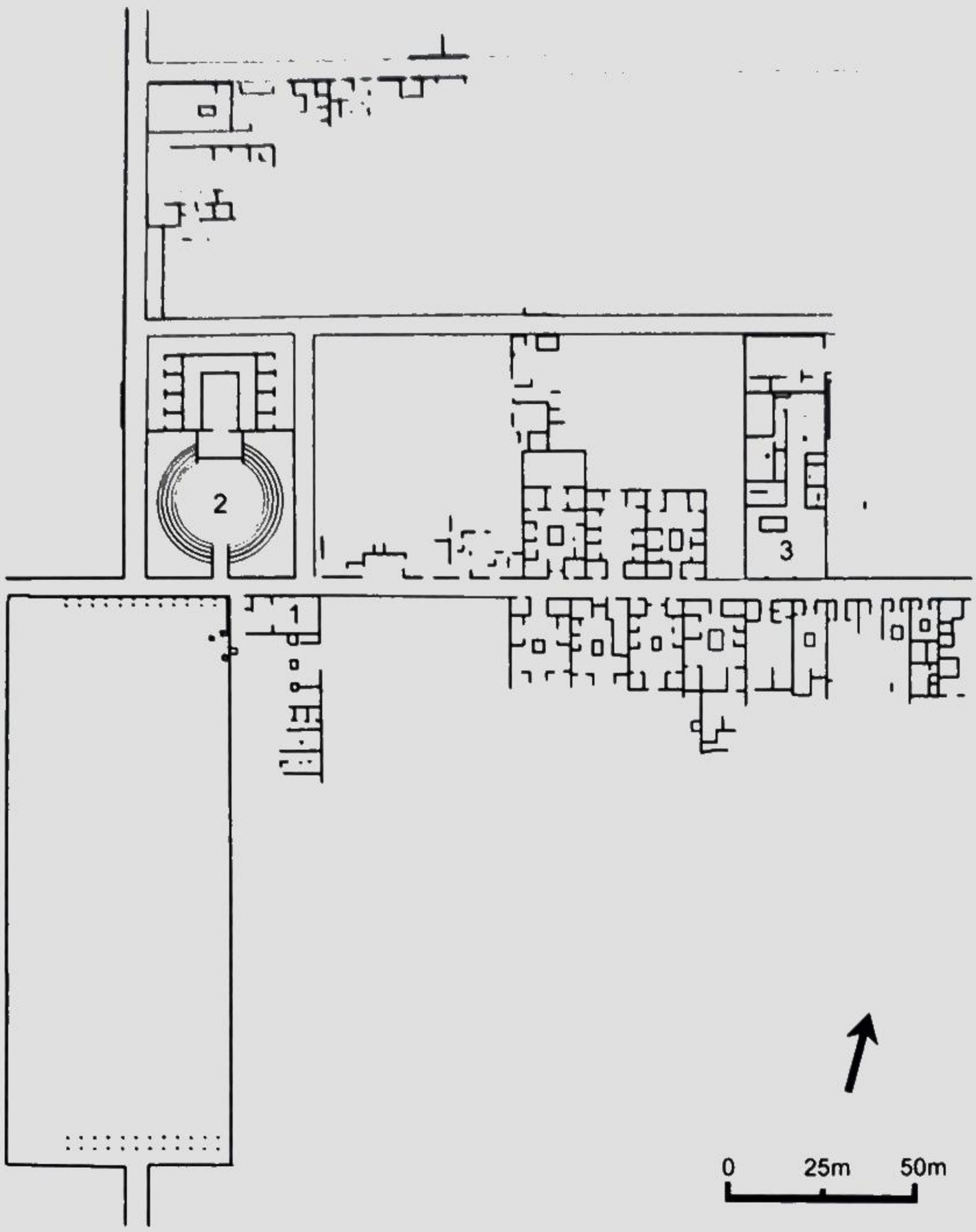


Fig. 16. Fregellae: the excavations near the forum.
1. Small temple, late 4th c.
2. comitium, 3rd c.
3. Bath complex, 3rd c.
(after Coarelli and Monti 1998, Tav. III, fig. 4).

thus a reconstruction, but it appears reliable. No excavation took place beyond the N limit of the circular *cavea*, which accounts for this missing portion, and the westernmost wall is hypothetical. There is thus no evidence for a curia building, as found in the other fully-excavated comitia at Paestum, Cosa and Fregellae, but one should be expected. The circular seating area is 17 m in diameter, set within a square (estimate 20 x 20 m) perimeter wall, flanked by two rectangular structures. Two tiers of the circular steps consisting of neatly-cut limestone blocks were found *in situ*.[150] The structure is ascribed to the late 3rd c. by J. Mertens.[151]

When Paestum was founded within the walls of Poseidonia in 273, possibly the greatest change to the existing town planning was the creation of a new forum that occupied a relatively small area in the southwest of the former agora (fig. 13). Some of the structures on the forum have been dated to the 3rd c. (fig. 18). They are characterised by the use of ashlar masonry in the grey Paestan limestone, which is also found in the fortifications.[152] The three excavated sides of the forum were

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150 Mertens 1968, 213-14.

151 Mertens 1988, 95. Coarelli (1985, 20 n. 36) argued that the ceramic finds pose no obstacle to assigning it to the end of the 4th or very early 3rd c., but has subsequently stated (1998b, 138-39) that the architectural model upon which it was based – the circular Comitium at Rome – was introduced *c.*263. One presumes that he no longer stands by his earlier dating of the structure at Alba.

152 Brown, Richardson and Richardson 1993, 256.

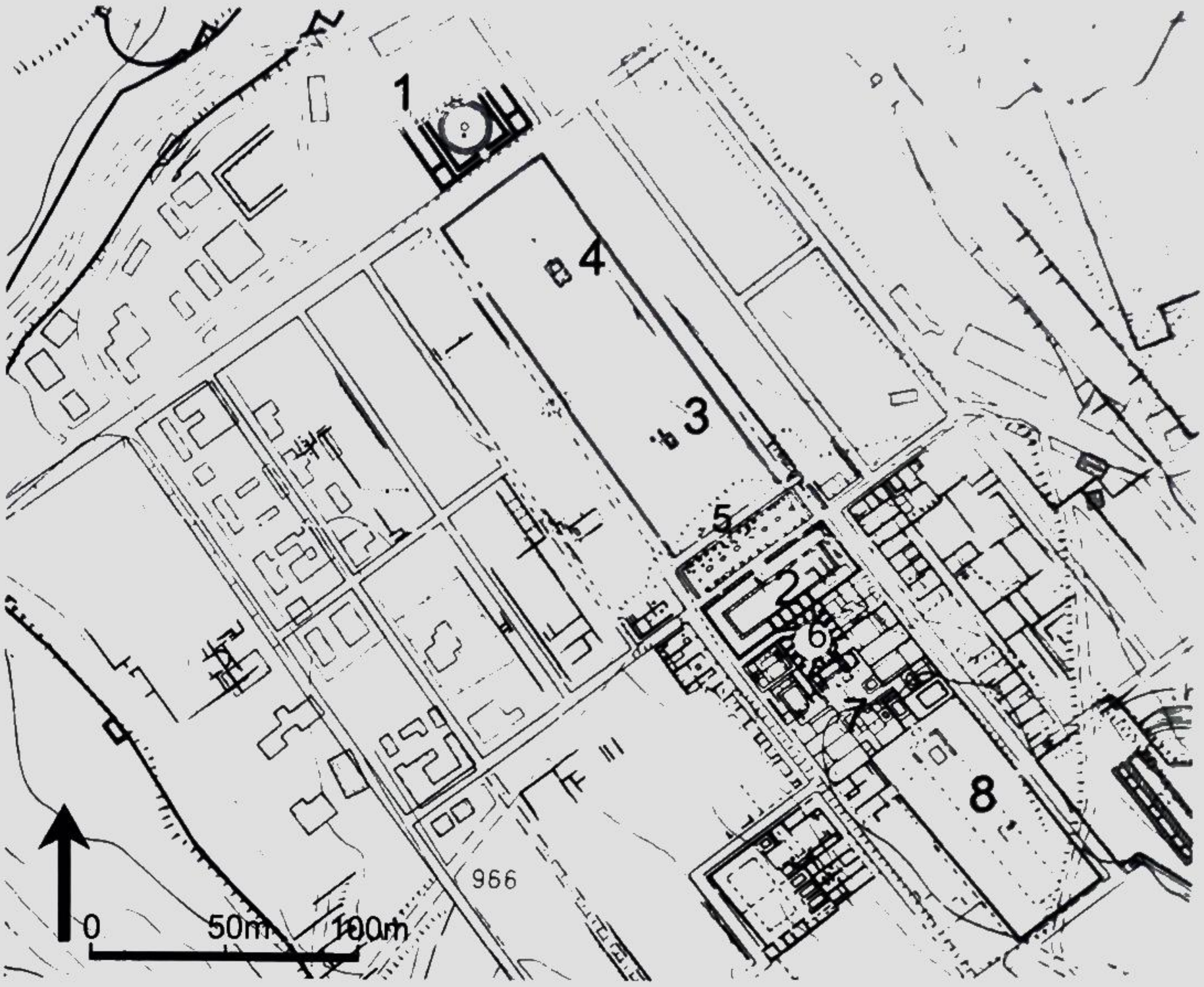


Fig. 17. Alba Fucens: the central area. 1. comitium, 3rd c. 2. basilica, 1st c. 3 and 4. unidentified structures on the forum. 5. Portico ('*diribitorium*'), 1st c. 6. Imperial *macellum*. 7. Imperial bath complex. 8. Hercules sanctuary and 1st-c. *porticus* (after Mertens 1969, plan I).

lined with *tabernae,* also built with ashlar masonry and dated to the 3rd c.[153] E. Greco believes the comitium and the *tabernae* on either side were conceived as a single project realised in the years immediately after the foundation of the Latin colony.[154] Directly to the west of the comitium a large sanctuary was constructed, dominated by an enormous (47 x 21 m) *piscina*. A monumental stone platform was placed at the W end of the pool but it is unknown whether a structure once stood upon it. The original elements of the complex are dated to the 3rd c.[155] The cult is believed to be that of Fortuna Virilis/Venus Verticordia[156] for a number of reasons, but the pool plays the decisive rôle. A *piscina* is believed to have been built at Rome towards the end of the 4th c. close to the shrines of Venus Murcia, Venus Verticordia/Fortuna Virilis and Venus Obsequens near the Circus Maximus.[157] The cult has been associated with military training and M. Torelli sees not only the sanctuary but also the open area immediately north of it as being associated with this activity. He also views the choice of site for the nearby 1st-c. amphitheatre as related to the character of the sanctuary.

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153 Greco and Theodorescu 1987, 17-18; Greco 1988, 83; Torelli 1999a, 33.

154 Greco 1988, 83. There appears to be consensus on the early dating of the comitium: cf. Coarelli 1985, 97; Brown *et al*. 1993, 256; Torelli 1999a, 23.

155 Greco and Theodorescu 1987, 43.

156 Greco 1988, 83; Torelli 1999a, 35-38; 1999b, 65-75.

157 Fest. 232 L; Livy 23.32.4; Cic., *ad Q. fr*. 3.7.1; cf. Torelli 1999b, 65-75.

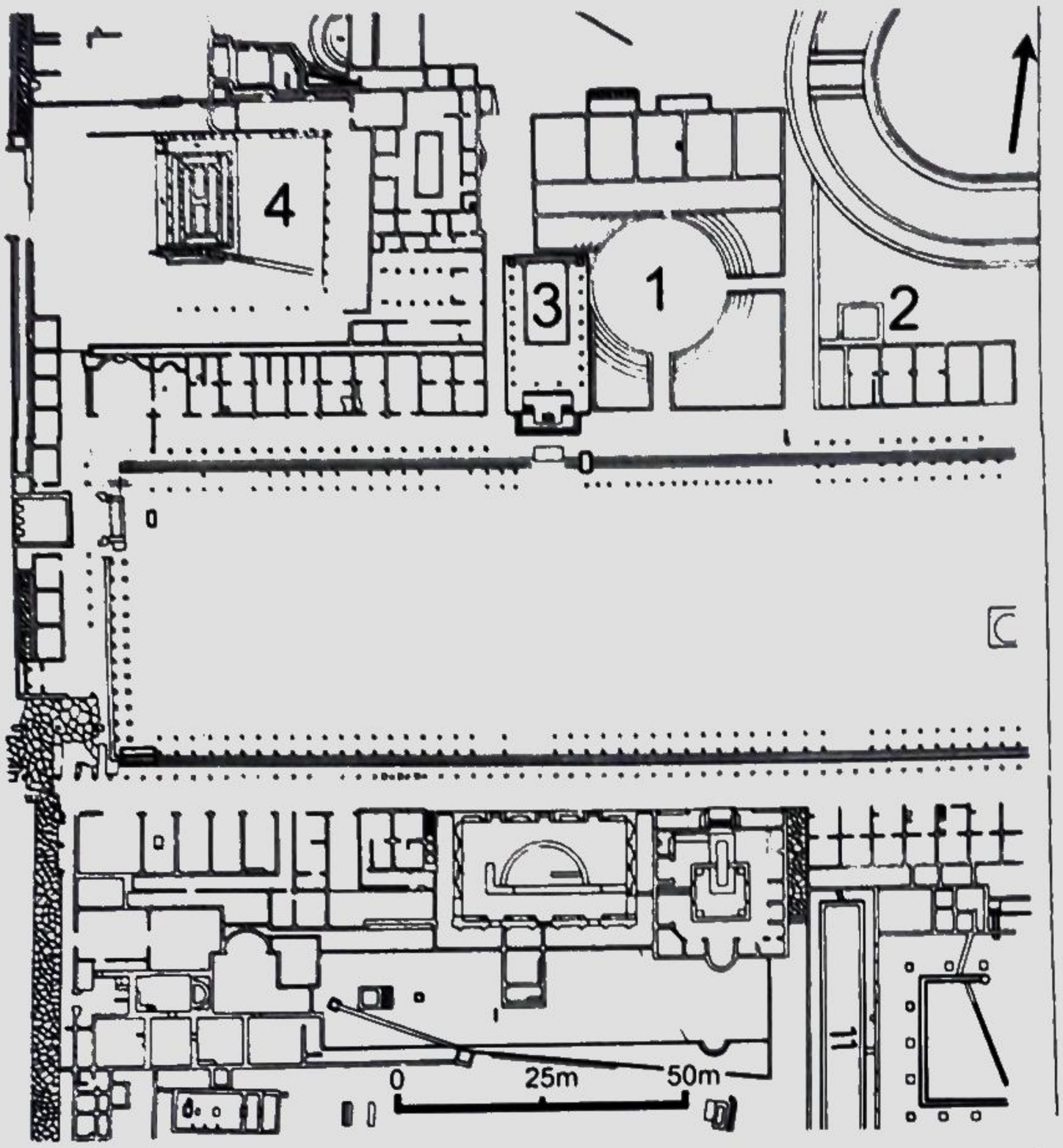


Fig. 18. Paestum: actual state of the forum. 1. comitium, 3rd c. 2. *aerarium* or *carcer*. 3. Italic temple. 4. Sanctuary with large *piscina* (after Neutsch, *Arch Anz* 1956, fig. 115).

The comitium consisted of a 41-m-wide circular seating area contained within a rectangular (*c.*170 x 140 ft) structure, with minor streets flanking its W and E sides.[158] On its N side were three small buildings of identical size separated by two courtyard-like spaces.[159] A façade comprising a roofed platform was added later to the front of these structures. At some point before the end of the 3rd c. the circular assembly-place of the former Greek colony was levelled and filled.[160] Perhaps the most notable feature is that the SW corner of the comitium is obliterated by a small temple, which has been considered a sign of the diminishing significance of the political institutions represented by the comitium.[161] There have been many attempts to date the temple,[162] but the excavators of the forum believe it belongs to the late 3rd or early 2nd c. (i.e., it post-dates the comitium[163]), although this has recently been contested.[164] The most generally accepted theory is that it was dedicated to *Bona Mens*.[165] The masonry of the comitium walls facing the temple was carefully re-worked, indicating that the two structures seem to have co-existed.

A similar comitium has been excavated on the forum at Cosa (fig. 9). Very few of the blocks from the circular *cavea* were found *in situ* but it probably had 8 steps originally,[166] sufficient space for up

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158 Brown, Richardson and Richardson 1993, 253-65; Torelli 1999a, 23-27.
159 Brown, Richardson and Richardson 1993, 259.
160 Traditionally believed to have occurred directly after the foundation of the colony: Greco 1988, 85; Curti, Dench and Patterson 1996, 189. *Contra* Crawford 2006, 65-66.
161 Torelli 1999a, 66; Lackner 2008, 142 and 265.
162 For references to the various dating interpretations, see Denti 2004, 668, n.19.
163 Greco 1988, 85-86; Torelli 1999a, 64-65.
164 Denti (2004) has suggested it was late 4th or early 3rd c.; *contra* Greco 2004; Longo 2004.
165 Greco 1988, 85-86; Torelli 1999a, 64-68.
166 Brown 1980, 23.

to 600 people.[167] Abutting the *cavea* to the north on raised substructures was a single room judged to be the curia, subsequently enlarged to a suite of three rooms.[168] It too was dated to the 3rd c., but no datable material was recovered from its construction levels and the reading was reliant upon the interpretation of a single stratigraphic relationship with a neighbouring structure.[169] I have suggested the possibility that the comitium/curia complex first came into existence during the early 2nd c.[170] The theory of a relocation of the forum actually demands that the structure be 2nd-c. (see above, with further discussion in chapt. 6). The results of trial trenching at Aquileia, a Latin colony founded in 181, indicate that a comitium was placed at the north of its forum.[171] This would seem to confirm that these structures were still considered appropriate architecture for a Latin colony after the Second Punic War.

All four of the Latin colonial comitia were placed on the N side of their respective fora, meaning that they all faced south. F. Coarelli has explained this phenomenon with the help of literary sources stating that business conducted in the Comitium had to take place during daylight hours and that it was scheduled according to the various stages of the sun's passage across the sky.[172] For present purposes, the most important aspect of the comitium's architecture is that several scholars believe that it was influenced by the circular assembly-places found in the cities of Magna Graecia and Sicily,[173] a reasonable assumption in light of the obvious architectural similarities, as well as the fact that examples of the Greek assembly-place were to be found on the Italian peninsula in the same general period. The growing number of these circular assembly-places prompted an article in 1976 by C. Krause arguing that the Comitium in Rome may once have had a similar form.[174] Despite the fragmentary archaeological data provided by the Republican Comitium,[175] traces of a curvilinear form are reflected in the adjoining rostra and some seating blocks. Krause's theory has been much refined by F. Coarelli, who sees the fifth phase as being circular (fig. 19).[176] Establishing when it was constructed is difficult due to the same lacuna, but all those who believe in a circular form consider its introduction to date from the second half of the 4th to first half of the 3rd c.[177] It is reasonable to assume that it pre-dates the colonial examples, but it is not certain exactly when the comitium made its debut in the colonies.

One encounters insurmountable difficulties in trying to reconstruct the Republican Comitium from the archaeological data. The structure itself and its phases have survived only in fragmentary form, and no finds from the mid-Republic have been recovered from stratified levels.[178] Reconstructions have had to rely on analysis of the written sources and the surrounding topography. The fifth phase has been interpreted as being a variety of shapes: a theatre form;[179] a mixture of

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167 Brown, Richardson and Richardson 1993, 47.

168 Brown 1980, 23, 37-38; Brown, Richardson and Richardson 1993, 139-42.

169 Brown, Richardson and Richardson 1993, 26.

170 Sewell 2005, 109-11. While I there tentatively hypothesised that a 3rd-c. comitium might have been dismantled and rebuilt when the forum was moved, there is no physical evidence whatsoever to support the idea.

171 Bertacchi 1989, cols. 84-106.

172 Coarelli 1983a, 138-42.

173 Krause 1976, 53-69; Brown 1980, 24; Coarelli 1985, 19; 1998a, 59; Greco 1988, 83; Humm 1999, 693; Fentress 2000a, 23; Lackner 2008, 262-63.

174 Krause 1976.

175 Ammerman 1996, 121-27.

176 Coarelli 1983a, 119-60; 1985, 11-21.

177 For recent discussions on the dating of the circular form, see Humm 1999, 652-69; Lackner 2008, 260-65. Coarelli (1998b, 138-39) most recently favours a date of 263; cf. id. 1985, 121, n.115. Humm (1999, 693) attributes it to some point between 338 and the early 3rd c., Torelli (1999a, 26) to perhaps 318, Lackner (2008, 260-65) to 338 or earlier.

178 Coarelli 1983a, 148-49.

179 Peterson 1904, 16-18; Sjoqvist 1951, 400-1.

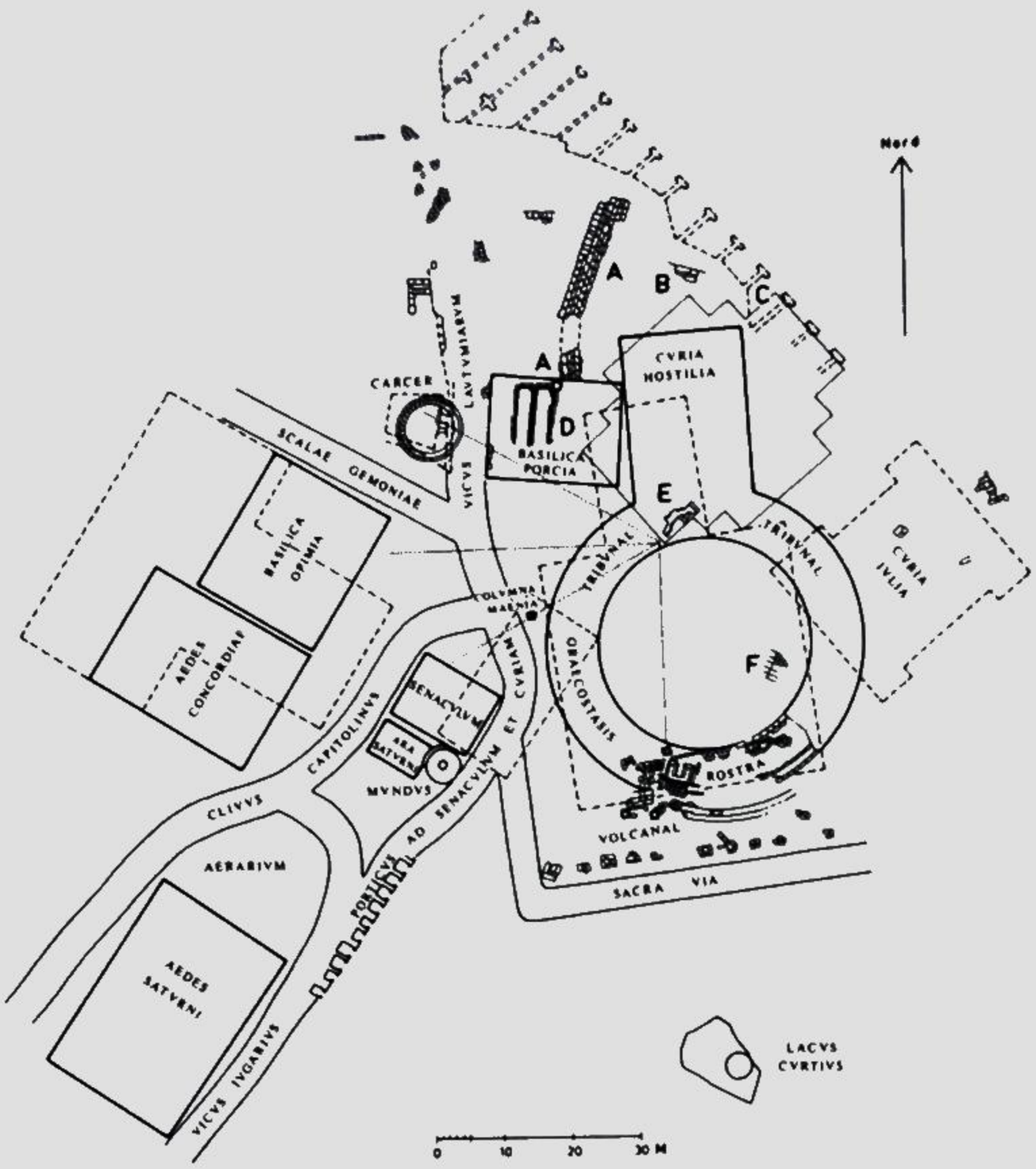


Fig. 19. Rome: the reconstruction of the circular Comitium by F. Coarelli (from Coarelli 1985, 23 fig. 5).

straight and curvilinear seating;[180] or a kind of wedge shape.[181] A recent analysis of the absolute heights from the surviving geological deposits concluded that Coarelli's reconstructions of the major phases of the Archaic and Republican Comitium, as well as that of the Curia Hostilia, should be rejected.[182] The lacunae in archaeological data have allowed a wide variety of interpretations, but the possibility that some form of circular Comitium existed during the mid-Republic remains strong, and the ubiquity of this form in the Latin colonies is indicative that it was similar to the example on the Forum Romanum, despite a circularity in the argument.[183] The curvature of the rostra appears to have been dictated by the physical form of the Comitium to which it was attached, meaning that the structure's surviving imprint supports the interpretation that it was circular, or at least partially curved. We must also consider the other distinct types of public buildings (basilica, macellum, curia, capitolium) that were duplicated in the colonies over time, all of which had precedents at Rome. In these other cases where specific types of civic architecture are found in multiple urban contexts, they are justifiably accepted as being based on a model found in the mother city.[184] And this despite our possession of very little archaeological information regarding the pre-1st-c. form of these other architectural archetypes in the capital. I believe the likelihood of there having been some form of circular Comitium on the Forum to be high.

The later 4th c. was a particularly dynamic period in terms of the development of Rome's political institutions[185] and, possibly, for its relations with Greek cities. The epoch saw the continuing

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180 Gjerstad 1941, 129-58.
181 Carafa 1998, 150-51.
182 Amici 2004-5, 359.
183 Cf. Mouritsen 2004, 40; *contra* Coarelli 2005a, 25-26.
184 Emphasised by Lackner (2008, 260 n.277)
185 Millar 1989, 140.

conflict between plebeians and patricians that resulted in greater accessibility to high offices for plebeians[186] and the emergence of a political élite called the *nobilitas*.[187] Part of this phenomenon was a series of new laws which, *inter alia*, transformed the Senate into the most powerful organ of government.[188] The demographic make-up of the city was also changing: 6 new tribes were added between 332 and 299,[189] partly in connection with Roman colonisation and its accompanying territorial extensions.

It is perhaps no coincidence that it was at this time that a new form of political assembly-place was introduced at Rome.[190] The circular Comitium was not the only feature in this part of the Forum with overtly Greek connotations since adjacent to it was the Graecostasis.[191] Varro describes the Graecostasis as the place where foreign envoys congregated before they addressed the Senate.[192] The choice of epithet was probably motivated by the visits of Greek envoys.[193] The structure's form is unknown, as is the date of its construction, but it is referred to by 304.[194] It was in the same year that Cn. Flavius dedicated a temple of Concordia in the area of the Volcanal next to the Comitium.[195] Concordia, one of the first of the so-called personified abstractions in Rome, is thought to be the equivalent of the Greek Homonoia, and the construction of the Concordia temple has been linked with the success of the equivalent cult in the cities of Magna Graecia and Sicily during the 4th c.[196] Statues of Alcibiades and Pythagoras are said to have stood near the entrance to the Curia from some point during the Samnite wars until the time of Sulla.[197] Both individuals have strong western Greek associations and there is a growing tendency to link the circular Comitium, the introduction of Concordia and the statues with an influence of Pythagoreanism on some circles of the Roman nobility.[198] While these phenomena warrant greater discussion than can be given here, the evidence does serve to strengthen the view that the circular Comitium was an adaptation from a Greek model.[199] It also suggests that Rome had some form of cultural contact with some of the cities of Magna Graecia and Sicily in the later 4th c., as may be inferred also from the literary sources (see below). Yet it would be misleading to imply that comitium architecture was derived solely from Greek precedents. For this reason, the discussion on the comitium will be taken up again in the next chapter, on the differences between Greek and Roman urbanism.

The transmission of the Greek influence on Roman town-planning and architecture

Several aspects of town planning in Latin colonies represent an extension and continuation of practices seen in Greek cities of the same period.[200] One may detect near-identical solutions applied to the line of the curtain, the placement of gates, and how this affected the alignment of the street-grid. The position of fora within Latin colonies follows the general rules observable in Greek cities, according to which the most important lines of communication converged on the main public square. At Cosa and Alba Fucens, the original scheme with streets lining the four sides of their fora is a planning device taken directly from Greek models. There is also some indication that in

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186 Cornell 2000b, 78-79.
187 Càssola 1988b, 470-75; Cornell 1995a, 340-44.
188 Cornell 1995a, 369-73; 2000b.
189 Musti 1988, 532.
190 Curti 2000, 78.
191 *LTUR* II, 373 (F. Coarelli); Coarelli 1983a, 141-46; 1985, 102-4; Welch 2003, 27-34.
192 Varro, *LL* 5.155-56.
193 Humm 1999, 676; Welch 2003, 28.
194 Plin., *NH* 33.19.
195 Livy 9.46.5.
196 Curti 2000, 80-83.
197 Plin., *NH* 34.26; Plut., *Vit. Num.* 8.20; cf. Welch 2003, 31-33.
198 Storchi Marino 1992, 130-35; Humm 1996, 346-53; 1999, 690-94.
199 Cf. Bispham 2007, 36.
200 As noted by N. Terrenato (2008, 253-54).

settlements of both cultures the differences in street widths were intended to reflect hierarchical relationships, and that especially wide streets may have been used for religious processions. These planning techniques originated in the archaic period. Although they were still being applied in new Greek foundations of the 4th c. (e.g., Priene and Kassope), their use in Latin colonies cannot automatically be taken as proof of a contemporary Greek influence, yet other results suggest that the latest Greek practices were being used by Roman planners. The Latin colonies had proportions of *insulae* similar to those seen in contemporary Greek foundations, and during the 4th and 3rd c. new Greek and Roman towns follow the same trend of gradually shortening residential blocks.

The view that contemporary Greek practices were being employed may be supported since recent studies show that the defences of the Latin colonies were directly influenced by the most current ideas in Greek fortification architecture. Analyses of arched gates, the portcullis, gate-courts and artillery towers reveal that all of the earliest Roman examples post-date the first known Greek instances by less than a century. Those responsible for the construction of the Latin colonies were plainly versed in some of the latest Greek ideas in city design. The period when our four colonies were founded (328-273 B.C.) probably saw the introduction of the circular Comitium at Rome. Together with the demonstrably Greek aspects of other features in this part of the Forum Romanum, it indicates there was some cultural contact with the cities of Magna Graecia and Sicily. It may be through these contacts that Rome somehow acquired current Greek ideas on city design. I suggest therefore that *contemporary* Greek ideas were being used in the town planning and architecture of the Latin colonies. Although there are gaps in the archaeological record, a pattern of new Greek architecture being rapidly adopted for Roman contexts is emerging: Greek concepts were being transmitted within decades.[201]

The process of diffusion becomes tangible when Roman developments are viewed from a broader perspective. A good example of this concerns the Roman citizen colonies of the 4th and 3rd c., the *coloniae maritimae*. Ostia was the first but there is controversy concerning its foundation date. Torelli and Coarelli favour the later 5th c.,[202] but the oldest material evidence dates from 380-340.[203] It might be older than Fregellae, making it the first orthogonally-planned settlement autonomously founded by the Romans and therefore vital to any discussion on the formation of Roman urbanism. The archaeologically known examples (Ostia, Minturnae, Pyrgi) have the same basic design, being either square or rectangular, strongly fortified and situated on the coast. Also distinctive is the interior layout, comprising two major streets intersecting perpendicularly at the precise centre of the settlement. This may be surmised from the presence of gates midway along each side, but no more than three gates per settlement have been confirmed archaeologically.[204] Such an intersection has been proven at Ostia, however, where no forum was found. Ostia (2.44 ha) and Minturnae (2.56 ha) are of comparable size, but Pyrgi was more than twice as big.[205] Although Livy records that 300 colonists were sent to other Roman colonies (Tarracina, Puteoli, Volturnum, Liternum, Salernum) from the 4th to early 2nd c.,[206] we have no figures for the three that are known archaeologically. Given Pyrgi's greater size it is safer not to assume that there was a set number of colonists.[207]

Since the 1960s, French archaeologists have been comparing the *coloniae maritimae* to Olbia (fig. 20), a permanently-manned Greek fort established by Massilia in the second half of the 4th c. near

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201 Torelli (2008, 271-72) argues that some developments in poliorcetic architecture were only slowly adopted in Italy, meaning not until the 3rd c.

202 Coarelli 1992, 25; Torelli 2007, 162.

203 http://www.ostia-antica.org/intro.htm (viewed 1.2.10). Lackner (2008, 135 n.1) provides a full bibliography on the discussion. Most favour a 4th-c. date.

204 Lackner 2008, 237.

205 There is no agreement on Minturnae's size: Lackner 2008, 121 n.11. 2.56 ha is the judicious calculation by Brandt (1985, 55-56) who also assesses the sizes of the other two colonies.

206 Livy 8.21.11, 32.29.4, 34.45.1.

207 Cf. Bispham 2006, 122-23.

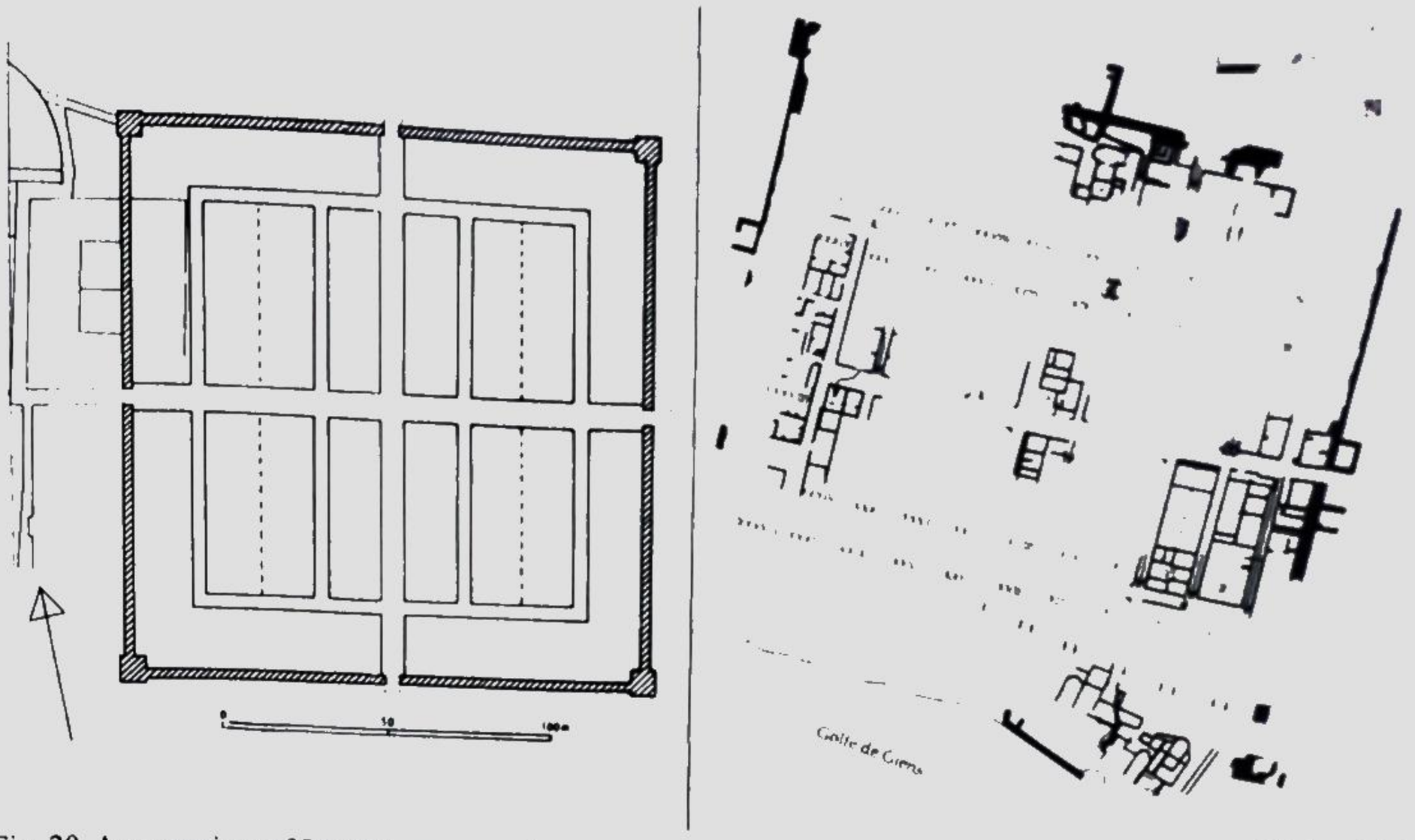


Fig. 20. A comparison of Brandt's reconstruction of Minturnae (left) with the actual state of the remains at Olbia (right) (Minturnae: after Brandt 1985, fig. 24; Olbia: after Verdin 1997, fig. 1).

Hyères-Les-Palmiers (Provence).[208] It was set directly on the coast, was square in plan (160-165 m on each side), and had towers at the corners. In these respects it was identical to Minturnae.[209] Of crucial importance is that Olbia's two widest streets were set perpendicularly to form a crossing at the settlement's centre and, similar to Ostia, the one running E-W is slightly wider than the N-S street.[210] It had no agora, and presumably lacked autonomous political institutions. It was situated *c.*66 km to the east of Massalia, and is believed to have been permanently garrisoned by its citizens to defend its maritime interests.[211] Not only Rome, then, was building this type of settlement. The potential link between the form and function of Massiliot and Roman citizen colonies has been explored by M. Bats,[212] who compares them with Athenian cleruchies of the 4th c. B.C. and the Greek fort-building tradition,[213] which might extend back as far as the 7th c. B.C.[214] Thucydides refers to Athenian coastal forts built to defend harbours and landing beaches in the second half of the 5th c.[215] Athens also fortified its landward frontier from the late 5th c. onwards,[216] as did Syracuse.[217] It is tempting to see these developments as an inspiration for similar processes taking place on the Italian peninsula in the 4th c. Part of Rome's southern approach was secured from the late 4th to mid-3rd c. by the site at La Giostra, just 14 km southeast of the capital.[218] It had an orthogonal street system, and its semi-rectilinear defences enclosed a mere 2.4 ha, making

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208 Coupry 1964 and 1986; Verdin 1997. Cf. Bats 2006.

209 Brandt (1985, 55-56) estimates the width of Minturnae to be *c.*160 m, but see n.205 above.

210 At Olbia the widths are 5.2 m and 4.2 m (Verdin 1997, 429); at Ostia, 8.7 m and 7.35 m (Brandt 1985, 33-34 and 41).

211 Bats 2004, 53-55.

212 Bats 2004.

213 Ibid. 54-64. Although the cleruchies were similar to Roman colonies in that they comprised non-autonomous communities of Athenian citizens who were given land and a military rôle, they are not associated with *ex novo* fortified settlements: Bats 2004, 54-55.

214 Lawrence 1979, 172-87, especially 173.

215 Thuc. 2.32, 2.93.4, 2.94.3, 3.51, 3.89.3 and 8.4; cf. Lawrence 1979, 174.

216 Ober 1985, 191-207.

217 Tréziny 1996.

218 Moltesen and Brandt 1994.

it the same size as Ostia. This period saw the rapid development of strategic networks of small fortified centres in Etruria,[219] such as those linked with Pisa[220] and Tarquinia.[221] One of these was the outpost at Musarna in Tarquinian territory.[222] Fortified and given an orthogonal plan in the late 4th c., its 5 hectares are believed to be of sufficient size for 300 families, similar to the *coloniae maritimae*. Although one should not generalise regarding the motivation to construct and populate these outposts, the fact that similar solutions were found for territorial defence suggests that broader processes were at work.

The strict rectilinear plans of Olbia and the Roman coastguard colonies seem to be a response to building on level terrain. Other square forts are known to have been built on level ground,[223] such as Oinoe between Attica and Boeotia.[224] Still, the exceptional degree of similarity between Olbia and the early Roman colonies (especially Minturnae) in terms of date, location, size, form, function and their permanent populations (dependent on a metropolis) suggests a direct link between Roman and Massiliot strategies for coastal defence. Ostia may well be older than Olbia, but the likelihood of Massilia basing its outpost on a prototype Roman model is very slim. By the 4th c., the Phocaeans of the W Mediterranean were old hands at building coastal colonies, which they had been doing since the early 6th c. along the shores of the Iberian peninsula and Liguria.[225] The convention of placing the two main streets perpendicularly so that they intersect at the centre of the settlement seems to have been a distinct feature of Massiliot town planning rather than one devised for the requirements of the coastal fort. This much is suggested by Strabo's description of Nicaea,[226] another 4th-c. foundation by Massilia. He states that it was square in plan and that the total length of the wall circuit was 16 stadia (equalling a surface area of *c.*55 ha, which makes it more than 20 times larger than Olbia); it had streets set at right angles and 4 gates, all of which could be seen from a stone set up in the *gymnasion*, presumably at the centre of the town. There is, then, a solid argument for not only the physical form of the *coloniae maritimae* having been adapted from the Massiliots, but also the colonisation model employed by Rome for its coastguard outposts from the 4th to the early 2nd c. The strong diplomatic ties Rome enjoyed with Massilia will be discussed below.

In terms of the development of town planning and architecture, Rome and her colonial foundations should be considered within a Mediterranean context.[227] This has not been sufficiently emphasised in the past. The traditional separation of Greek and Roman archaeology as scholarly disciplines is one factor.[228] Equally, to isolate the development of Roman urbanism during the Republic, without reference to broader processes observable in the Mediterranean region, runs the risk of limiting our understanding. Larger Greek settlements throughout the Mediterranean region started to build city walls on a systematic basis from the mid-4th c. onwards. This was due to advances in both offensive and defensive siege technology. Many towns in Italy also started to construct or renew their fortifications during the later 4th and 3rd c.[229] in what seems to be a

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219 Torelli 2007, 75-77.
220 Maggiani 2008.
221 Cerasuolo and Pulcinelli 2008; Steingräber 2008.
222 Broise and Jolivet 1997.
223 Cf. Bats 2004, 57-64.
224 Cf. Lawrence 1979, 173; Hesberg 1985, 143; Ober 1985, 154-55.
225 Garbini 1996, 127-30.
226 Strab. 12.4.7.
227 Cf. Curti 2001, 20-21.
228 This separation has created, on occasion, a form of tunnel vision: F. E. Winter (1971, 25-26, esp. n.51) discussed the gates and towers of Paestum within the context of Greek defensive architecture, into which they fit, but also concluded that they post-dated the foundation of the Latin colony in 273. One wonders, then, why the evidence from a Roman foundation was included in a book entitled *Greek fortifications*. See also Dornisch 1991, 187.
229 Cornell 1995b, 126.

related trend, possibly partly due to peer polity interaction.[230] One can speak of a Mediterranean phenomenon, one to which Rome also belonged, even though the reason for the construction of her fortifications is set apart as a response to the Gallic sack of the early 4th c.[231] The building (or renewal) of her walls is said to have begun in 378,[232] and the short interval (reportedly about 8 years) following the sack has provided a neat and seductive logic that implicitly connects the two events. Yet there is no record of the Gauls using any kind of siege technology. This is not to say that foreign occupation of the city had no influence upon the construction of new defences, but the matter is unlikely to have been that simple.[233] Our chief source, Livy, does not state that the walls were built in response to the Gallic incident, only reporting that they were contracted by the censors — the earliest direct reference to a public building contract at Rome.[234] Using major historical events to explain developments in Roman architecture may thus restrict our comprehension. A case in point is V. Benvenuti's analysis of the artillery towers at Cosa,[235] arguing that the Romans first adopted Greek artillery technology from their contact with Pyrrhus, whose army is reported to have possessed it.[236] The Epirote king was not building cities during his sojourn in Italy, however, and this historical episode cannot be used to explain why the defensive architecture at Cosa is so similar to that seen in Greek contexts. There is no need to burden the protagonists of the historical narrative with the extra rôle of bringing new concepts to Italy, for there were others busy with this task whose work is visible through the archaeological record.

In fact, Rome's 4th-c. walls contribute to the discussion on contemporary foreign influence on Roman urbanism. Greek mason's marks are preserved on some of the blocks, a plain indication of her willingness to employ foreign expertise when new architectural solutions were required.[237] The 4th-c. *porta Sanqualis* possibly represents the first Roman use of a gate court with two sets of gates, a Greek invention.[238] This particular feature was subsequently applied in the Latin colonies. Greeks present at the construction of Rome's fortifications hint as to how their technology could have been disseminated; it also creates a possible link with the new Mediterranean-wide fashion of building walls. How were Greek concepts transmitted into Roman planning ideology and architectural vocabulary? From the work of J. J. Coulton,[239] the most likely means of transmission were: (1) itinerant Greek architects and engineers contracted by Roman employers; and (2) Greek architectural manuals disseminated amongst Roman architects. Regarding the first point, mason's marks on Rome's walls suggest that Greek contractors were employed in Rome's large-scale building projects; it also suggests that during the 4th c. the Romans were willing to exploit foreign know-how, and that Greek craftsmen were prepared to come to Rome.

The period when the four Latin colonies were founded was a dynamic one for urbanism. On Sicily urban revival is attested archaeologically after Timoleon's intervention in 340.[240] In mainland Greece a large number of cities were founded or expanded in Achaia, Aitolia, Epirus and Acarnania, areas closer to Italy.[241] Then there was the urbanisation programme of Philip II of Macedonia[242] and the massive one undertaken by his son Alexander throughout the East and continued

230 Becker 2007, 203.
231 Id. 1995a, 198-99; 1995b, 124-26; Scott 2005, 103; cf. Battaglini 2004, 99-100.
232 Livy 6.32.1.
233 Torelli 2008, 266-67.
234 Anderson 1997, 80.
235 Benvenuti 2002.
236 Diod. Sic. 22.8.5. Cf. Torelli 2008, 271-72, for a similar argument.
237 Cf. Cornell 2000c, 45.
238 Brands 1988, 196-97; Gros 1996, 30.
239 Coulton 1983.
240 Talbert 1974, 161-78.
241 Mee and Spawforth 2001, 14.
242 Ibid. 394-95.

by his Successors.[243] This was also a time of regeneration in some cities of Magna Graecia.[244] At Metapontum in the late 4th c. the theatre was constructed and new stoas put up on the agora.[245] Poseidonia saw new building activity on the agora in the same period.[246] These were not short-term projects. One consequence will have been an increase in the number of individuals with expertise in building cities based on a Greek model. Early examples of the arched gate in NW Greece, Asia Minor and Italy (see pp. 35-36) reveal how quickly and over what distances new architectural concepts were being disseminated.

On current knowledge Massilia was the only Greek *polis* building settlements similar to the *coloniae maritimae*. Massiliot experts might therefore have been directly involved in the development of the model for Rome's coastguard colonies. The earliest attestation of *amicitia* is with the Massiliots[247] and the sources reflect their strong diplomatic ties with Rome.[248] Justin claims they provided financial assistance after the Gallic sack in the early 4th c., sealing the relationship with a *foedus aequum*[249] and possibly the right of 'public hospitality' (*hospitium publicum*).[250] Good relations continued through the 3rd c.: Massilia provided Rome with essential intelligence during the Second Punic War.[251] Despite the fragmentary nature of the sources on the relationship between Rome and the Greek cities of Magna Graecia and Sicily in this period, there are signs of increasing contact.[252] In 326 a *foedus aequum* made with Neapolis probably restored a pro-Roman aristocracy[253] but left the city with its Greek identity and constitution.[254] Cumae, Naples' mother city, had become a *civitas sine suffragio* at the end of the First Samnite War.[255] The early 3rd c. witnessed increased diplomatic activity. In 285 the Romans sent a garrison to Thurii at its request to protect it from the Lucanians, and a consular army returned in 282 to liberate it.[256] The Thurians then erected a statue in Rome of the tribune who initiated their rescue.[257] Rhegium, Locri and Croton placed themselves under Rome's protection between 285 and 280.[258] D. Musti has noted that the Greek areas of the peninsula were spared the kind of military conquest the Romans inflicted on the Italic peoples of S Italy in their quest for land.[259] This alternative strategy led to many of the old Greek centres coming under Roman control, which could have led to increased contacts by Rome with the wider Greek world.[260] If Rome had sought Greek experts, then there were channels through which they could be obtained. The evidence for links with Massilia reminds us that some of the Greek contractors employed by Rome may have originated from areas outside Italy and Sicily. The knowledge such foreigners brought with them is likely to have been assimilated by the other architects in Rome's employ (see further below).

An example of a novel architectural concept that subsequently was widely disseminated in Italy is the gate court. The earliest examples found in Italy during the 4th c. might have been Roman

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243 Price 1991, 370; Fraser 1996, 240-43.
244 Lomas 1993b, 67-74; Thomsen 2009, 383.
245 Mertens 1998, 131; 2001, 69-70.
246 Greco and Theodorescu 1980, 19-21, 27-30; 1983a, 55-60; 1983b, 97-101; Greco 1988, 79; Gennaro, De Longo and Rocco 2000, 131-52, especially 136.
247 Coarelli 1988b, 146-47.
248 Just. 43.3.4, 43.5.3; Livy 34.9.10; Strab. 4.1.5.
249 Just. 43.5.8-10.
250 Cornell 1995a, 321.
251 Livy 21.25.1, 27.36.1
252 Musti 1988, 537-42.
253 Livy 8.26.6; Lomas 1993a, 44-48.
254 Toynbee 1965, 102.
255 Livy 8.14.11.
256 Toynbee 1965, 100-4; Scullard 1980, 140; Cornell 1995a, 363.
257 Plin., *NH* 34.32; cf. Millar 1989, 143.
258 Clemente 1990, 35; Cornell 1995a, 363.
259 Musti 1988, 534; 1995, 363-70.
260 Cf. Clemente 1976.

(Rome and Ostia), but they are also found in other diverse contexts on the peninsula, such as the small Etruscan fortified centre of Ghiaccio Forte in the Albegna valley,[261] or the large Lucanian settlement at Civita di Tricarico.[262] In his discussion on the latter, O. de Cazanove compares known Greek gates with those known from Italy, noting that those on the Italian peninsula share greater similarities with each other than with the Greek examples. The reasons for this are partly related to pre-existing peninsular traditions in fortification architecture.[263] Of interest here is how the concept of the gate was disseminated among cultures that were not necessarily on friendly terms with one another, since it is difficult to perceive a reason why they should share the technology. Similarities may be accounted for if the construction of fortifications in Italy was the responsibility of itinerant (freelance) architects.

On Coulton's second point, there is no direct testimony for Roman use of Greek architectural manuals during the 4th and early 3rd c., but Vitruvius refers to many such works, some dating back to the 6th c.,[264] and laments that the Greek practice of writing treatises was not adopted to the same extent by Roman architects.[265] The structure of Vitruvius' own work appears to be partly based on a Greek tradition.[266] The order in which he describes the physical aspects of the city, from the choice of site to placement of public buildings,[267] is identical to that employed by Aristotle three centuries earlier.[268] The Greek architectural tradition appears therefore to have had a major influence on the formation of the Roman one.[269] We hear later of individual Greek architects who worked on public projects at Rome, such as Hermodorus who constructed the Temple of Jupiter Stator from 146 B.C. onwards. Two decades earlier, however, a Roman citizen, Cossutius, perhaps from a Campanian family,[270] was employed by Antiochus IV to restart work on the prestigious Olympieion at Athens.[271] This innovative design employed the Corinthian order on a scale never seen before.[272] It was a project of the highest standing, reflecting the level of Cossutius' proficiency in the practice of Greek architecture. It is possible, therefore, that the dissemination of Greek architectural treatises was linked to the accumulation of this knowledge among Roman architects.

We will resume the theme of Greek influence in the chapter on housing. The next chapter, however, seeks to balance the picture by showing how some existing Roman traditions were incorporated into the Latin colonies and how there was some resistance from Roman town-builders to particular Greek concepts.

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261 Rendini and Firmati 2008, 379-81.

262 De Cazanove 2008, 172-210.

263 The particular form of the gate that developed on the peninsula is probably due to it having a double function as retaining walls for the *agger* (see p. 62): Brands 1988, 16-20.

264 Vitr. 7.*praef.* 12-14.

265 Vitr. 7.*praef.* 14-15, 17-18.

266 See the important discussion in Gros 1997, xlv-lxxii; see also Taylor 2003, 24-25; Shipley 2005, 377.

267 Vitr. 1.4-7.

268 Arist., *Pol.* 1330a34-1331b4.

269 Cf. Wallace-Hadrill 2008, 144-210.

270 Gruen 1992, 132-33.

271 Vitr. 7 *praef.* 15, 17; *IG* II-III^2 4099.

272 Lang 1991, 450

CHAPTER 3

Town planning and public architecture of the Latin colonies:
Roman traditions and rejected Greek concepts

Archaeology also reveals tangible differences between the Latin colonies and contemporary Greek cities. First I will establish the elements of Greek town planning and architecture that are not found in the Latin foundations. Then I highlight some elements found in the four colonies for which there is no clear Greek origin or equivalent from the period in question. The aim is to show that some Greek elements were deliberately rejected by Roman city-builders, who had their own traditions upon which to draw.

The sections concerned with public architecture focus on the area of the agora/forum. The stoa is examined at length because the reason for its absence in 4th- and 3rd-c. Roman contexts is central to the subsequent discussions (see chapt. 5). It is also necessary to understand something of the agora's sacred character since some exclusive features of Latin fora, such as stone-lined pits, are believed to be related to religious aspects. Such elements provide an opportunity to contrast the way in which Greek and Roman public squares were perceived from a religious point of view. The comitium is also revisited since, although its circular seating arrangement was arguably based on a Greek architectural model, the way in which it was adapted reveals some differences between Greek and Roman political systems. The final section comprises a re-analysis of the stone-lined pits that are found along the edges of each of the Latin colonial fora, and a re-assessment of the debate on the degree to which the colonies resembled their mother city.

The choice of site

The majority of the Greek sites discussed so far were founded on hilltops or hillsides, the chief exceptions being the archaic colonies of Poseidonia and Metapontum. Adequate defence was clearly a major issue in the decision of where to place a city during the 4th and 3rd c., but not all of the new foundations of this period were placed on high ground. The Arcadian city of Megalopolis was situated on level ground with a river running through it, while re-founded Mantineia had a diverted river flowing around the outer face of its urban defences.[1] From the 4th c. onwards, there was also a tendency to found Greek cities (e.g., Kassope and Priene) on south-facing hillsides rather than hilltops.[2] This was probably related to the perception of what a 'healthy' site was.[3] Aristotle recommends a sloping site that faces east or one that faces south, because it offers more protection from the weather in winter.[4] Such south-facing settlements also had their houses orientated towards the south, which Xenophon recommended, again on health grounds.[5] The typical courtyard houses of this period were ideally suited for catching the low winter sun, which penetrated the living areas to the north of the open courtyard. During the summer the same layout provided shaded areas when the sun was high.[6] Houses on elevated terrain would also have benefited from good drainage and increased security when under siege.[7]

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1 Winter 1971, 33; Roy 2007, 292.
2 Hoepfner and Schwandner 1994, 318-20; Hoepfner 1999, 339.
3 Cahill 2002, 75.
4 Arist., *Pol.* 1330a34-1330b7.
5 Xen., *Mem.* 3.8.9-10.
6 Hoepfner and Schwandner 1994, fig. 303.
7 Kenzler 1998, 133-34.

None of the four Latin colonies was placed on a S-facing hillside. Vitruvius takes the opposite position to Aristotle,[8] considering a N-facing aspect to be better because it was removed from the heat, which he believed to be a source of unhealthiness. Cosa was largely set on a hillside facing northwest. Thus there appears to have been a major difference in mentality regarding health-giving properties and the choice of site.

The hilltop sites chosen for new Latin colonies like Alba Fucens and Cosa reflect a desire for a site with natural defences. Colonies were often placed in areas that had been subdued by military conquest and the defensible positions chosen reflect the insecurity felt in new areas. It was not only the danger of local resistance that influenced the decision, for the seaward position of Cosa took the Carthaginian threat into account. Colonies were also founded on level ground during this period. In addition to Paestum, a coastal plain was selected for Ariminum in 268,[9] although it was so placed to be surrounded by waterways.

From a superficial point of view there appear to be some similarities in the placing of Greek cities and Latin colonies in this period, yet from a closer look at the historical background of Roman colonisation some fundamental differences in the Greek and Roman choices of site emerge. We should remember that the responsibility for the Roman foundations was that of one city — Rome — which undertook construction of the Latin colonies in her own best interests. Some of the Greek sites were also founded and embellished through external intervention, but what sets the Latin colonies apart is that they functioned together as a strategic system.[10] By the end of the 3rd c. the Latin colonies had proven themselves an effective shield for the mother city on multiple occasions.[11] In other words, the choice of site was dependent on much more than the defence of the colony's own territory. From 334 to 273 most of the Latin colonies were founded as measures against the Samnites and their allies,[12] while Cosa and Paestum were placed with the Carthaginian threat in mind. In the Roman context the strategic mentality behind the choice of site stands out as a difference. The only potential comparisons from our period might be with monarchies: Philip II consolidated his new borders with fortified towns that seem to have functioned as a strategic system,[13] while some Seleucid foundations formed a chain to defend trade routes.[14]

The logic behind the location chosen for the colonies often appears to have been to guard communications routes.[15] The installation of colonies in pre-existing settlements (e.g., Paestum) meant that not all could be near major roads, and the preference for easily defensible sites on hilltops often excluded the possibility of them being traversed directly by *viae publicae*.[16] Still, the areas targeted for Latin colonisation down to 283 correspond to the directions of subsequent roads:[17] Cales (334), Fregellae (328), and Interamna Lirenas (312) were placed near rivers on long plateaux which provided some natural defence.[18] But the walls of those towns had sections where there was so little topographical advantage that retracing their line today is very difficult. However, their relatively low-lying situations were to the advantage of traffic using the *via Latina*, which ran through them. Roads were an umbilical link to the mother city, and a statement of power in themselves.[19] The creation of the road system is also thought to be related to political competition amongst the

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8 Vitr. 1.4-11.
9 Torelli 2007, 178-79.
10 Sommella 1988, 227-30; Cornell 1995b, 126.
11 Coarelli 1992, 23-28; 1998a, 29-37.
12 Toynbee 1965, 158-60; Salmon 1969, 57; Gabba 1988, 20.
13 Hammond and Griffith 1979, 652-62; Lawrence 1979, 120.
14 Winter 1971, 38-39.
15 Ward-Perkins 1955-56, 147.
16 Cf. Radke 1973, 1665.
17 Lackner 2008, 217: *via Appia, via Latina, via Valeria, via Flaminia*.
18 Ward-Perkins 1955-56, 147; Johannowsky 1961, 258-59; Coarelli 1998a, 53.
19 Zanker 2000, 29.

Roman ruling classes. It also had economic consequences.[20] Earlier roads may have been based on pre-existing routes traversing the areas that came to be colonised,[21] so the construction of a communications network based on the mother city may have influenced the choice of site. The extent and scale of Roman road-building finds no comparison in Greek contexts, although Philip II is thought to have undertaken a programme of military road construction.[22]

From the 2nd c. onwards, the tendency to place new Roman cities on level ground increased. Many of the new towns from that period were founded in the north of Italy, large parts of which lacked natural defences.[23] Fewer new towns came to be founded on hilltops[24] as roads assumed an increasing economic importance over time.[25] Cosa was largely abandoned by the mid-1st c.; one of the reasons could have been its remoteness from the routes that were essential for the production and export businesses in its territory.[26] By contrast, a low-lying town made commuting from town to farmland easier.[27] With these changes favourable conditions were created for the economic growth of colonial towns.

The forum/agora and its relationship to the topography of the site

The agora was placed so as to be adjacent to the main streets of the town (see pp. 25-30). In Greek contexts, hilltop and hillside settlements tended to have agoras that were at relatively low points within the city.[28] This made communication between the gates and the agora less arduous and helped with water-supply to the agora.[29] This is the case at Kassope and Morgantina where the agora was placed on the southern limits of the city. The fountain house at the NE end of the piazza at Morgantina reflects its low-lying situation (fig. 11). This was also true for coastal towns whose agoras lay close to the harbour. From the limited information available, this rule seems not to have been applied by the planners of the Latin colonies. The hilltop settlements, Cosa and Alba Fucens, have their fora at relatively high points within the town. At Cosa the extant forum was finally placed on the most even terrain available, but at Alba Fucens there was level ground in a more central part of town, as the portico of the Hercules sanctuary demonstrates (fig. 17). The reason for these high-lying fora was partly to do with the location of the main streets, but another aspect of planning ideology may have played a part (see pp. 139-46). Some other fora where the locations are known or guessed at in colonies founded on hilltops also appear to have been set in relatively elevated positions,[30] although the highest points were more likely to be reserved for the acropolis and sanctuaries. Although Fregellae was founded on relatively level ground, the situation is similar: the forum was placed on a ridge running through the town.[31] An aqueduct ran beneath the length of the main *cardo*, which entered the forum on its N side[32] (the reason why it was interpreted as an aqueduct rather than a drainage canal is because the ground slopes down on either side of its axis).

Forum axiality

At Fregellae the *via Latina* enters the forum at the centre of each end (fig. 16). The axial centrality of this street in relation to Fregellae's forum sets it apart from the other three Latin colonies, which

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20 Laurence 1999; Lackner 2008, 234.
21 Coarelli 1988a; Patterson 2006a, 191-93.
22 Hammond and Griffith 1979, 673-74.
23 Brands 1988, 73.
24 Ibid. 70; Lackner 2008, 20 n.15, 234.
25 Curti 2001, 19.
26 Wilson 2004, 574; Sewell 2005, 109-14.
27 Lorenz 1987, 111.
28 Cf. Kenzler 1998, 130-35.
29 Ibid. 135-37.
30 Firmum (264 B.C.): Lackner 2008, 94 and 350. Narnia (299): ibid. 128-29 and 361. Spoletium (241): ibid. 189-92 and 380.
31 Ferraby *et al.* 2008, 127.
32 Coarelli 1998a, 55.

follow a pattern typical of Greek cities (see pp. 25-30). The concept of an axially central forum, common in later Roman towns, is generally viewed as Italic,[33] although it is not without precedents elsewhere.[34] Fregellae offers the earliest known example in a truly urban Roman settlement, although Lackner reconstructs a similar arrangement at Cales, the first post-338 Latin colony.[35] Given that the colonies played a rôle in protecting communications routes, this planning device may have been designed to emphasise the importance of the road that ran through the town. Alternatively, it may be due simply to topographical constraints. The intramural *via Latina* was laid out along a ridge that ran through Fregellae and flattened out in the area of the forum, hence the choice of its location.[36] Comparable physical limitations influenced Lackner's reconstruction of an axial forum at Narnia (299)[37] and she reconstructs a similar scheme at Ariminum (268).[38] Falerii Novi (post-241) had an axially planned forum, as confirmed from a magnetometry survey.[39] This scheme became popular in later Roman towns.

Forum axiality is also associated with later Roman colonies that evolved to become fully-fledged towns from the first quarter of the 2nd c. onwards.[40] This development led to a more standardised tripartite forum of the Imperial period: the forum was set with axial centrality at the crossroads of the main *cardo* and *decumanus*. To the north of the *decumanus* was the *capitolium*, and south of it the forum, flanked by porticoes, with the *basilica* beyond.[41] The excavated forum at Cosa represents an early reflection of this mentality with its singular axial entrance. Axiality is hardly seen in the area of any Greek agora and it has been argued that it was actively avoided.[42] In Asia Minor during the Hellenistic period, however, axiality can be seen in some compositions such as the agora at Assos and the North Market at Miletus.[43] Nevertheless, axial symmetry as a concept was present in Italy long before the Hellenistic period[44] and there appears to be no direct link with any Greek precedent.

Planning the flanks of Latin colonial fora

The sides of at least three of the four fora of the Latin colonies were furnished with *tabernae*, although some were built a considerable time after the date of foundation.[45] Despite this, the planning of the fora appears to have anticipated their construction from the start. There is no palpable sign of such foresightedness in contemporary Greek town-planning. There is little to explicate the character of these 'shops' during the 4th and 3rd c. *Tabernae* are known to have been present on either side of the Forum Romanum in this period,[46] and some are described as for butchers or bankers. These epithets are virtually all we know of the character of the commerce that took place within them. As evidence emerges from the 2nd c. onwards, the economic activities within *tabernae* seem to be driven by the initiative of the ruling classes.[47] The earliest commercial activities established for the *tabernae* around the Cosan forum were metalworking and the dispensing of wine and possibly cooked food.[48]

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33 Gjerstad 1944, 70; Boëthius 1953, 180; Martin 1972, 913.
34 Gjerstad ibid. 40-72.
35 Lackner 2008, 60-62 and 344.
36 Ferraby *et al.* 2008, 127. I am grateful to M. Millett for bringing this topographical aspect to my attention.
37 Lackner 2008, 128-29 and 361.
38 Ibid. 42-44 and 338. Her forum reconstruction here is based solely on archaeological data.
39 Keay *et al.* 2000.
40 See chapt. 1, n.71.
41 Gros 1996, 212-24.
42 Hoepfner and Schwandner 1994, 308-10.
43 Gjerstad 1944, 62; Martin 1951, 538.
44 Boëthius 1960, 41.
45 Lackner 2008, 271-72.
46 *LTUR* V, 12-15 (E. Papi).
47 Purcell 1994, 662-71.
48 Brown, Richardson and Richardson 1993, 70 and 92-93; Fentress *et al.* 2003, 14.

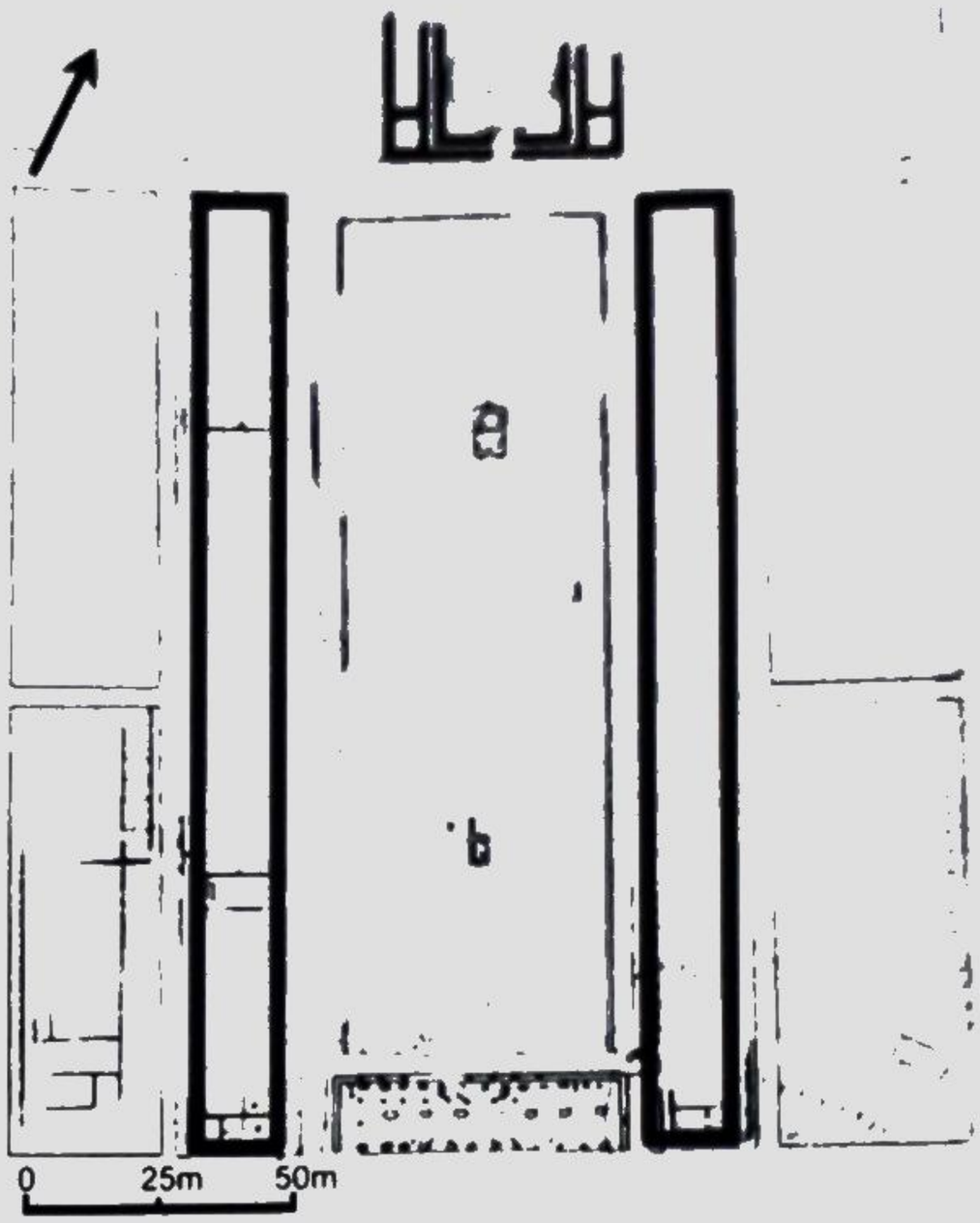


Fig. 21. Alba Fucens: planned areas for *tabernae* (after J. Mertens).

At Paestum the three excavated sides of the forum are lined with *tabernae* (fig. 18). They were constructed in ashlar masonry and are believed to be 3rd c.[49] E. Greco believes the comitium (1) and the *tabernae* on either side of it were conceived as a single project.[50] The areas at the NE and SW sides of the forum at Alba Fucens remain largely unexplored (fig. 17). It may be inferred that the street flanking the SW side of the space (*via del Miliario*) and the street on NE side (*via dei Pilastri*) were lined with *tabernae*. At the SE end of the forum, on either side of the so-called *diribitorium*, the first shops exposed from two contiguous rows of *tabernae* appear to extend northwest along both of the forum's flanks. One of the units within the SW row was excavated. During its final phase of occupation the structure seems not to have had a commercial function.[51] It was opulently decorated with marble and a columned platform stood towards the rear of its space, yet the layout of the interior walls was the same as in the structures found on the same axis further to the southeast, reinforcing the view that two rows of *tabernae* lined the forum. All of the excavated examples were built employing *opus incertum* and a 1st-c. date has been suggested (they would not be earlier than the 2nd c.).[52] The character of the immediate flanks of the Alba Fucens forum prior to the construction of these structures is unknown. At Cosa houses probably lined three sides of the excavated forum (fig. 58), but the situation is actually very similar because the front of each atrium house comprised two large rooms opening onto the forum and the excavated examples at least functioned as *tabernae*.[53] At Fregellae, no *tabernae* as such have been found (i.e., that compare to the architectural canon seen elsewhere), but there is a row of structures adjacent to the E side of the forum (fig. 16).[54]

From the above I would argue that there appears to have been a clear intent to preserve space on either side of colonial fora for *tabernae* and other structures. The clearest evidence is at Alba Fucens, the plan of which reveals that two narrow *insulae* were set adjacent to the long sides of the forum (fig. 21). Streets which ran along their outer sides defined them clearly.[55] It is possible to reconstruct a similar situation at Fregellae from the preliminary published results. Along the E side of the forum the rear of a row of structures is defined by a single wall (fig. 16). No trace of an abutting street appears in this case, but the back wall of the structures still seems to define the edge of an *insula* positioned to flank this side of the forum. It is likely that a similar *insula* was placed along

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49 Greco and Theodorescu 1987, 17-18; Torelli 1999a, 33.
50 Greco 1988, 83.
51 Mertens 1969a, 90-91.
52 Coarelli and La Regina 1984, 82.
53 Brown, Richardson and Richardson 1993, 57-97; Fentress *et al.* 2003, 14.
54 Ferraby *et al.* 2008, 129.
55 The street along the rear of the row of *tabernae* on the forum's NE flank has been inexplicably ignored in the latest reconstruction by Lackner (2008, 332-33), despite having been found archaeologically.

the W edge of the forum, as the magnetometry survey suggests[56] (see fig. 22 for suggested reconstruction). The only fully excavated structure in the E block mentioned in the preliminary report is a small temple at its N end, which may date from the founding years and probably housed a cult linked to the town's political institutions.[57]

At Paestum the excavation results indicate a similar arrangement (fig. 23). An *insula* along the S side of the forum can be confidently reconstructed due to the discovery of a street running along the rear of the S row of *tabernae* (later overbuilt).[58] It would be more accurate to describe this as two *insulae* since a gap was left in the centre of the S side, corresponding to the width of the comitium and its flanking lanes directly opposite. The westernmost of these two blocks has been correctly restored (despite how it looks in fig. 23): the *tabernae* originally extended this far east, but a portion of the row was later demolished to make way for the basilica.[59] A lane on the S side of forum on the same axis as the one on the comitium's E flank suggests that the streets on either side of the comitium were once mirrored on the forum's S side. Two considerably wider *insulae* were probably planned on the N side of the forum. It seems likely that a street was originally intended to run along the rear of the comitium and other structures there. This interpretation is based on the alignment of the sanctuary's main N wall to the northwest and on the rear limits of the comitium. The area behind the *tabernae* to the east of the comitium is dominated by an amphitheatre (1st c.) whose entrance matches exactly the axis of the hypothesized street. The original scheme can still be made out within the plan of the structures on the forum.

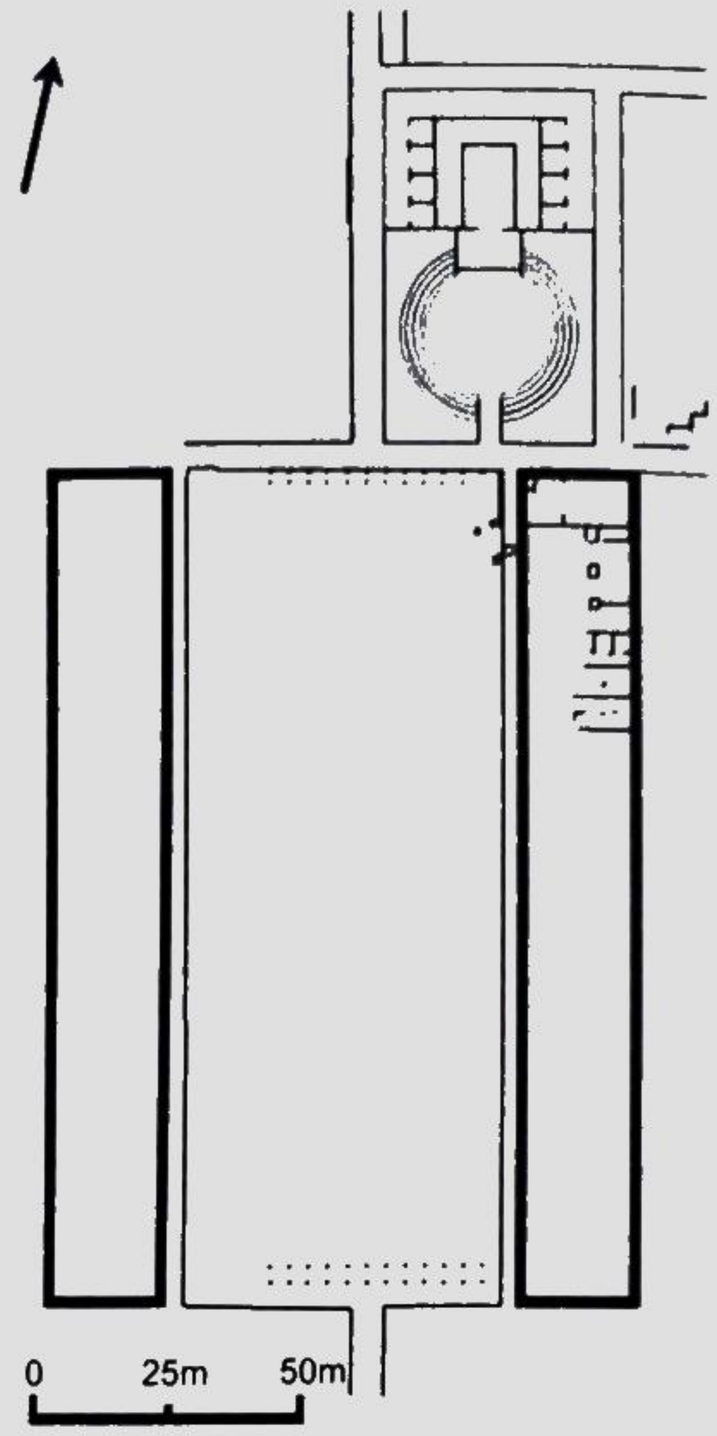


Fig. 22. Fregellae: hypothetical reconstruction of the original *insulae* for *tabernae* and other public buildings on the forum (after Coarelli and Monti 1998, Tav. III, fig. 4).

Based on the reconstructed 3rd-c. plan (fig. 24), a similar scheme probably existed at Cosa. A 100-ft-wide *insula* was situated along the N edge of the forum. As at Paestum, the length of the comitium appears to conform to the width of this *insula*. Because we find corresponding *insulae* flanking each side of the forum at Alba Fucens, Paestum and probably Fregellae, we would hypothesize that the S flank of the 3rd-c. Cosan forum was originally planned with *insulae* on Street 5 to either side of Street P. The reconstruction (fig. 24) places considerably narrower *insulae* along the S side of the forum by comparison with the more confidently restored 100-ft-wide block beside the forum's N edge. It is based on the known arrangement at Cosa's sister colony of Paestum, where the width of the southern *insulae* appears to have been tailored to the planned length of the *tabernae*. Based on the reconstructed 3rd-c. plan (fig. 10), Street 5 leading in from the gate to the port is important within the hierarchy of streets, making it a likely place for shops. This reconstruction remains theoretical. Given the paucity of evidence for urban construction at Cosa during the 3rd c. (discussed below), it is unlikely that shops were actually built in the town during this period. After the probable urban restructuring of the early 2nd c. these blocks would no longer have lined

56 Ferraby *et al.* 2008, 129.
57 Coarelli 1998a, 56-61.
58 Greco and Theodorescu 1980, 30-32; cf. Torelli 1999a, 28-30.
59 Greco and Theodorescu ibid. 18.

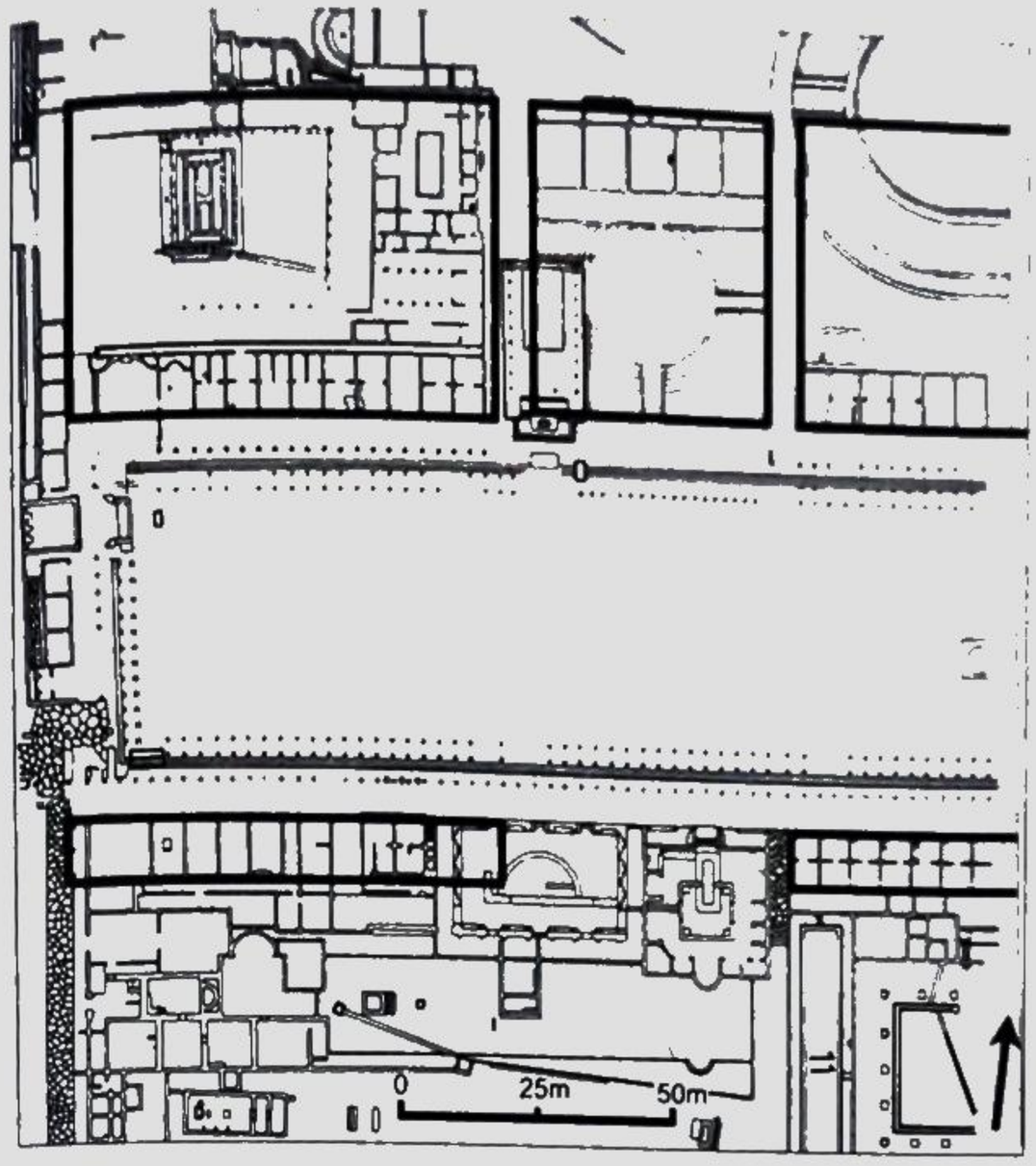


Fig. 23. Paestum: a reconstruction of the original *insulae* for *tabernae* and other public buildings on the forum (after Neutsch, *ArchAnz* 1956, fig. 115).

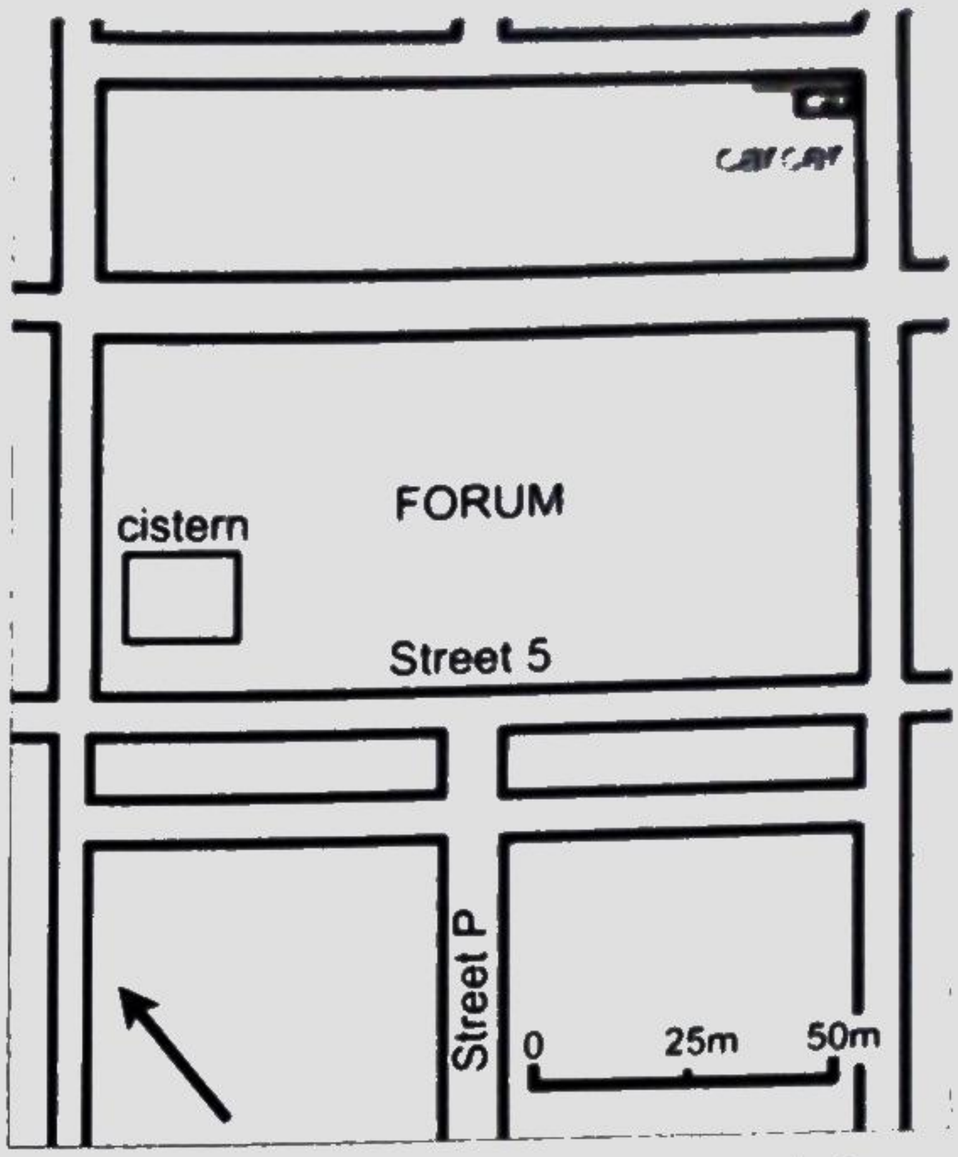


Fig. 24. Cosa: hypothetical reconstruction of original *insulae* for *tabernae* and other public buildings on the 3rd-c. forum (after Brown, Richardson and Richardson 1993, 6 fig. 1).

the forum, making it unlikely that *tabernae* were realised here. In fact, recent excavation in this area has revealed an atrium house where one of the blocks (between Streets O and P) would have been situated,[60] which the excavators believe could not have been constructed before 197,[61] meaning it post-dated the forum relocation.

Sanctuaries, *tabernae* and political architecture have been found on the excavated portions of flanking *insulae*. The creation adjacent to fora of uniquely sized *insulae* for future public architecture seems to have no equivalent in Greek town planning. This can best be seen at Priene,[62] where the construction phases of the agora have been well published. It began as an open square with areas corresponding to future stoas apparently reserved on the neighbouring *insulae*.[63] Normal, standard-sized blocks originally surrounded the agora, and parts of them were reserved for stoas that later came to be set there.[64] The difference from the Latin colonies is that uniquely-sized *insulae* were placed along the flanks of their fora. At Alba Fucens, Paestum and Cosa, these *insulae* were bounded by streets at each end and along their rear limits, creating a separation between them and the structures beyond. In other words, Roman planners designed the fora of Latin colonies with some kind of preconception of how they were going to develop in the future. This planning device seems to have been applied programmatically. Since the physical definition of these spaces is probably datable to the founding years of each colony, the tradition appears to have developed early

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60 Roca Roumens, Fernández Garcia and Ruiz Montes 2007; http://www.mcu.es/patrimonio/docs/MC/IPHE/Publicaciones/IT/N3/4_cosa.pdf (viewed 21.09.10); http://www.mcu.es/patrimonio/docs/MC/IPHE/Publicaciones/IT/N1/09Italia_Cosa_Informes_Trabajos.pdf (viewed 21.09.10).

61 Roca Roumens, Fernández Garcia and Ruiz Montes 2007, 485.

62 Raeck 2005, 147.

63 Koenigs 1993, 389; Raeck 2003, 326; 2005, 157-60.

64 Raeck (2009, 308-9) has recently stated that houses on the N side of the agora were partly demolished to make way for the agora's public architecture.

within post-338 Roman urbanism. The continuation of this practice into the 2nd c. is confirmed at the Roman colony of Luna (177) which had two forum-flanking *insulae* defined by streets upon which two rows of *tabernae* were constructed.[65] Such a scheme might also be tentatively reconstructed for Minturnae's 2nd-c. forum.[66] This suggests that the planning of the reconceived citizen colonies of this period was at least partly based on that of their Latin colonial predecessors.

The *agger* and pomerial road

Although the Romans were adopting contemporary Hellenistic elements in their fortifications, some traditional Italic features exist in the defences of Latin colonies. The *agger* is an earthen bank piled up against the inner faces of town walls and is Italic in origin.[67] This technique was used in the defences at Cosa and Alba Fucens.[68] It has been argued that the pomerial road, common to Roman foundations, was not a feature used by the Greeks.[69] Olbia possibly had one in its original design (see fig. 20), which, in turn, probably influenced the form of the early Roman colonies. However, it is likely that the pomerial street developed independently on the Italian peninsula. The *agger* created a building-free zone around a settlement's perimeter, providing defenders with a freedom of movement similar to that of the pomerial street.

The comitium and the absence of other Greek political architecture in Latin colonies

Except for the comitium, no other form of Greek political architecture seems to have been adapted for the fora of the Latin colonies, due to differences between the Greek and Roman political systems. The civic institutions of the Latin colonies are barely mentioned in the sources; only a handful of fragmentary statutes has survived.[70] Inscriptions record the titles of Latin magistracies, many of whom are known from Rome,[71] but the (incomplete) record demonstrates that the colonies did not have uniform political structures,[72] although it is reasonable to assume that their civic institutions were at least partly based on Rome's.[73] The archaeology of Latin comitia strengthens this view because they physically emulated Rome's Comitium/Curia complex to a significant degree (see pp. 41-47). There is no sign that the adaptation of a Greek assembly-place in the Latin colonies meant that a Greek form of assembly was adopted;[74] rather, the archaeology of the comitium suggests that it was used differently from the circular assembly-places in Magna Graecia and Sicily. There are three basic differences:

1. The width of the steps of the Roman assembly-places is considerably less than in Greek contexts.[75] This is generally understood in light of Cicero's statement that people stood at Roman assemblies and sat at Greek ones.[76]
2. All the Roman versions are placed within a square, or nearly square, structure. This is believed to be due to the requirement for Roman political activities to take place within an inaugurated *templum*.[77]

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65 Lackner 2008, 117 and 356-57.

66 The W flank of the forum was lined with *tabernae* at some stage, behind which Lackner (2008, 123 and 358-59) reconstructs a street. The broader E flank was occupied by a basilica and a putative curia. The excavation of the forum south of the transect of the *via Appia* was not published.

67 Guaitoli 1984, 367-70; Brands 1988, 19. Cf. Quilici 1994.

68 Brands ibid. 81-82 and 114.

69 Ward-Perkins 1955-56, 144; 1994, 9 and 34.

70 See Galsterer 2006. It is possible that the pre-Social War *lex Osca Bantia* (Crawford 1996, 13) was based on the constitution of the Latin colony of Venusia: Torelli 1999b, 114-15; Bispham 2007, 50 and 147-52.

71 Salmon 1969, 86-87; Sherwin-White 1973, 117-18.

72 Brown 1980, 102; cf. Lackner 2008, 219.

73 David 1996, 101. Mouritsen (2004, 39 n.9) refers to discussions on this theme. Lackner 2008, 218-23.

74 Taylor 1966, 28-31.

75 Krause 1976, 58-59.

76 Cic., *Flac.* 15-17.

77 Coarelli 1983a, 140; id. 1985, 18-19; *contra* Vaahtera 1993, 104-10; cf. Carafa 1998, 117-18.

3. The circular *caveae* of the comitia in the Latin colonies were visually dominated by adjacent curiae, which were raised above the stepped area.

The circular form was ideal for open, face-to-face debate, a feature of Greek assemblies but, according to Cicero,[78] not of Roman ones. Our understanding of the procedures involved in Roman assemblies is limited to those of Rome. The word comitia was also used to describe the assemblies themselves during which voting took place.[79] More informal *contiones* were controlled by a presiding magistrate who did not allow open debate.[80] The magistrate could ask others to come to the tribunal to speak. Although formally anyone could be asked, we only have notice of magistrates or members of the Senate having been.[81] Literary sources do not suggest that any form of open debate took place in assemblies, even though the circular form appears designed for face-to-face discussion.

The architecture of the Latin comitia is not incompatible with what we know of the procedures of assemblies at Rome. The presiding magistrate would presumably have stood on the podium in front of the curia. From that elevated position he would be able to address all those present. If any were invited to speak, they may have been called to the platform. The crowd would have stood on the circular steps beneath but the circular form naturally draws the gaze of the audience to its centre. The arrangement of a high podium attached to the exterior of the circle appears somewhat awkward. Thus a round assembly-place does not appear to be the ideal form when the focus of the audience is supposed to be outside and above the circle. Solutions to this problem appear to be attested archaeologically, for the structures at both Paestum and Fregellae underwent reconstruction that led to their podia being extended southwards at the expense of the section of circular steps nearest to the curia (figs. 16 and 18).[82] In both cases, after the truncation of the steps no audience member would have had his back entirely to the platform, even if he faced the centre.

From the above, it was not necessary for the seating in comitia in the Latin colonies to form a complete circle. The curiae at both Fregellae and Paestum had platforms in front of their buildings truncating the full circle of the steps below. The small forum temple at Paestum occupied nearly a quarter of the area of the circular steps. The walls of the comitium, which bordered the temple on two sides, were neatly worked, indicating that the intent was not to abandon the assembly-place after the temple was built. This suggests that activities associated with the comitium may well have continued, despite the temple's invasive presence. If a fully circular *cavea* was not an architectural prerequisite for the normal functions of the comitium, we might not necessarily expect the Comitium on the Forum Romanum to have comprised an uninterrupted circle. No such structural intrusions are known to have disrupted the circle of similar Greek assembly-places. The lack of open discussion in Roman political assemblies may be a reason why the comitium did not need to be fully circular.

The *aerarium* and the *carcer*

At Cosa and Paestum, similar small rectangular structures have been found close to the comitia (figs. 9 and 18). Both have been interpreted as a *carcer* (prison) or *aerarium* (treasury)[83] but the most likely interpretation is that both were small prisons. At Rome, the Carcer was in close proximity to

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78 Cic., *Flac.* 15-17.
79 Taylor 1966, 34-106.
80 Gargola 1995, 54; Coarelli 1998b, 134; Millar 1998, 153; Mouritsen 2001, 46; cf. Hölkeskamp 1995, 35.
81 Millar 1998, 46-47.
82 Fregellae: Coarelli 1998a, 59. Paestum: Torelli 1999a, 24.
83 Cosa: *carcer* or *aerarium* (Brown, Richardson and Richardson 1993, 38-41). Paestum: *aerarium* (Greco and Theodorescu 1987, 63-67); *carcer* or *aerarium* (Greco 1999b, 3); *carcer* (Torelli 1999a, 25; 1999b, 49). Lackner (2008, 272) favours *carcer* for both. Vitruvius 5.2.1 does not help by stating that both the *carcer* and the *aerarium* should adjoin the forum.

the Comitium.[84] At Cosa, the structure was placed over a vaulted chamber built within a natural fissure in the limestone, accessible through a hole in the floor. This arrangement bears great similarity to Sallust's description of the Carcer Tullianum at Rome, located 12 ft underground[85] and believed to be archaic in origin.[86] There are other reasons for supporting the prison hypothesis. At Cosa, the structure was accessible from the rear of the block beyond the N side of the forum. At Paestum, the small cell could be entered from the small street on the E side of the comitium. Both were deliberately placed so as to be close to the forum but without direct entry from it: access was from small side-streets. Imprisonment deliberately removed a person from society, and the structures at Paestum and Cosa were placed so that those inside would not have been able to see the public activities on the forum, reflecting the exclusion that the prisoner was supposed to suffer. The secluded position chosen for them makes it less likely that they functioned as treasuries. Because security was paramount, treasuries were often placed in highly visible and easily guarded places.[87] At Rome, the treasuries of the Aerarium were placed within the Temple of Saturn.[88]

The rejection of the stoa concept

The later 4th c. witnessed a growing fashion to line the borders of agoras with stoas. At this time stoas were constructed along the E limit of the agora at Metapontum,[89] while at Poseidonia at least two stoas were erected on the agora at the end of the 4th c. (fig. 13).[90] At Morgantina there was a programme of building stoas (or stoa-like structures) along the borders of the agora during the 3rd c. (fig. 11).[91] Kassope had stoas built on the edges of its market-place in the 3rd and 2nd c. (fig. 15),[92] and it appears that stoas on the agora at Priene were constructed between the 4th and 2nd c. (fig. 25).[93] The majority of all stoas were constructed between the 4th and 2nd c.[94] Coming to dominate the public squares of Greek cities, they have been described as "a hallmark of the Greek way of life".[95] Prior to the later Hellenistic period they were generally placed on the borders of public space, such as the edges of agoras, but they were also placed on the boundaries of sanctuaries, where the earliest examples have been found.[96] J. J. Coulton's survey of the scanty epigraphic and literary evidence for the functions of stoas[97] is summarised here:

Known functions of the stoa:

General

- To provide shelter and shade at large gatherings;
- Could house minor dedications and sanctuaries;
- Statues were often seen in them, or in front of them;

In sanctuaries (especially at religious festivals)

- A place to sleep overnight for visitors from far away, or for patients at healing sanctuaries.

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84 *LTUR* I, 236 (F. Coarelli).
85 Sall., *Cat.* 55.
86 Fest. 356; Livy 1.33.8; Varro, *LL* 5.151.
87 Brown, Richardson and Richardson 1993, 41.
88 Platner and Ashby 1929, 463-65.
89 Mertens 1998, 131; 2001, 69-70.
90 Greco and Theodorescu 1980, 21 and 27-30; 1983a, 55-60; 1983b, 97-101; Gennaro, De Longo and Rocco 2000, 131-52, especially 136.
91 Stillwell 1961, 278-79; Sjöqvist 1962, 136-37; 1964, 137-39; Bell 1984, 511; 1988, 332-36.
92 Hoepfner and Schwandner 1994, 133-39.
93 von Kienlin 1998-99; 2004; Raeck 2003, 343-49; 2005, 157-62.
94 Coulton 1976, 7 and 55.
95 Ibid. 1.
96 Ibid. 9.
97 Ibid. 9-12; cf. Millett 1998, 215-17. The list is augmented by suggestions from E. Curti (pers. comm.).

In agoras

- Offices for magistrates (archon basileus at Athens).
- A place for displaying laws (Stoa Basileus, Athens).
- A place for the display of a city's history (Stoa Poikile, Athens).
- A place for court sessions (Stoa Poikile);
- A façade for dining-rooms (South Stoa I, Athens);
- A place for public banquets;
- A place that could be let by the *polis*. Shops of a particular kind could occupy a single stoa (Myrrh sellers' Stoa at Megalopolis; Cobblers' Stoa at Syracuse).

The architectural development of the stoa in relation to the agora differed in the various regions of the Greek world. In the East, the so-called Ionic agora became dominant. The term is taken from Pausanias where he states that the agora of Elis was not like those of the Ionic cities,[98] but was fashioned in the old way with separate stoas and streets between them. This has been taken to mean that the Ionic stoa is typified by those at Priene (fig. 25) and Miletus, where a single stoa is combined with a Π-shaped stoa.[99] There is no example of this form in the western colonies. Coulton stated that there was a general absence of stoas in the West,[100] but that has more to do with the paucity of excavated agoras at the time he was writing. Wherever agoras have been securely identified and excavated, stoas have been found. The agoras at Metapontum, Poseidonia and Morgantina possessed stoas, but note that stoas were built on the agora at Poseidonia in the 4th c., after the city is thought to have come under Lucanian control.[101] Coulton provides literary references to the presence of stoas on the agoras of Syracuse[102] and Agrigento,[103] and the agora of Megara Hyblaea.

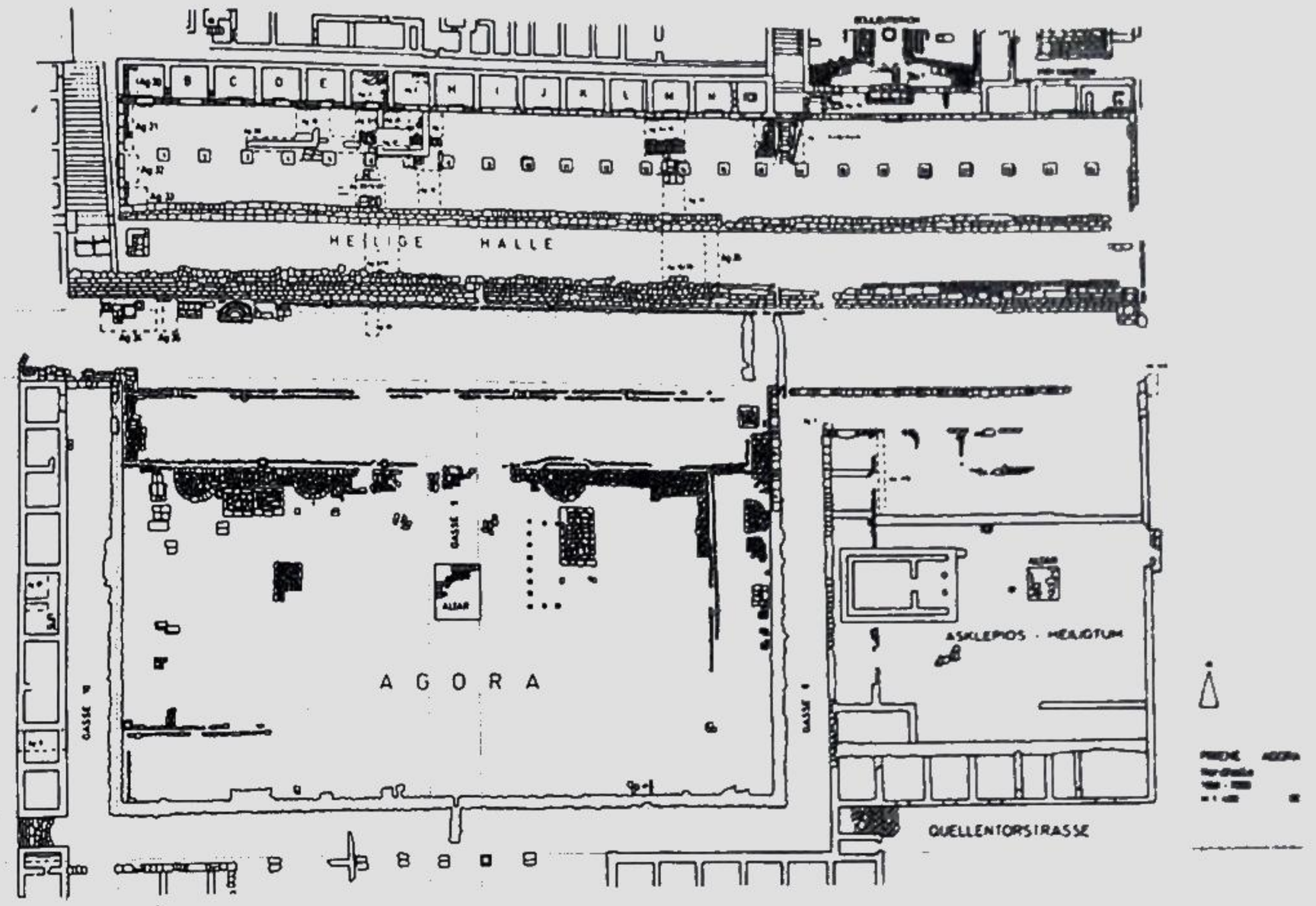


Fig. 25. Priene: the actual state of the agora (from Raeck 2005, 161 fig. 7).

98 Paus. 6.24.2.
99 Wycherley 1942; Martin 1951, 372-417.
100 Coulton 1976, 8.
101 Greco and Theodorescu 1980, 19-21 and 27; 1983a, 55-60; 1983b, 97-101; Gennaro, De Longo and Rocco 2000, 131-52, especially 136.
102 Polyb. 8.3.2.
103 Polyb. 9.27.9.

an archaic colony in Sicily, had two stoas, one dating from the archaic period, the other from the early Hellenistic.[104]

Coulton focussed on the history, architectural form, decoration and function of the stoa. For our purposes its position within the agora is important. Coulton suggests that the origin of its form may have been the structural embellishment of the boundary wall of a sanctuary or agora.[105] Placement of stoas on the boundaries of public spaces had an effect on the visual appearance of agoras. By the 2nd c., anyone standing in the centre of a Greek market-place would hardly have been able to see any structure beyond it due to the presence of stoas and other public buildings surrounding the space.

From the 4th c. onwards, a determining factor in the length of individual stoas appears to have been how big a gap there was to fill. Such a *Rahmenarchitektur* brought architectonic unity to the space, at the same time visually shutting out all that was beyond. At Metapontum, the boundary between the agora and the major sanctuary adjacent was emphasised in the 4th c. with a long row of *horoi*.[106] Although no stoas stood on the border between the agora and sanctuary, there was a need to demarcate the boundary. Similar *horoi* have been found on the edges of the Athenian agora.[107] The area within the limits of the agora was defined in some fashion as being different to that outside it. The agora was a not a space where everyone was welcome: it was a place from which some were excluded. The reasons are connected to religious and political practices and to law. As we know from Athens, the agora had a profoundly religious character,[108] one frequently associated with political activity. Of the deities represented on agoras, Zeus Agoraios is most often found.[109] He is seen as a protector of the community, but also a purifier of justice and the assembly. The link between activity on the agora and inner purity, or purification, plays a part. Water basins (*perirrhanteria*) were set at the entrances to the Athenian agora for the ritual cleansing of hands:[110] a symbolic act of purification was required before stepping into the agora.

Literary sources suggest that those who were regarded as being somehow impure should not be allowed on the agora.[111] Demosthenes states that traitors, those who have mistreated their parents and those with unclean hands should not enter the agora.[112] Convicted murderers were banned,[113] as were those who had been found guilty of prostituting themselves.[114] Aeschines advocates that those who avoided military service, cowards and deserters should be kept "outside the *perirrhanteria*" of the agora.[115] This last reference indicates that the basins themselves, as well as the *horoi*, were seen as representing the limits of the square. The *horoi* defined the border from a legal perspective, and the *perirrhanteria* defined a religious boundary of the Athenian agora.[116] The idea of purity extended to traders too; the *agoranomoi* were appointed to ensure sellers did not break the law by cheating their customers within the agora's defined space. This also helped to secure the neutrality of the market. It is reported that foreigners were not allowed to conduct business in the Athenian agora.[117] Thus there was some degree of exclusion of persons and practices with respect

104 Coulton 1976, 256.
105 Ibid. 22.
106 Mertens and Greco 1996, 254.
107 Camp 1992, 48-49.
108 Martin 1951, 164-201.
109 Ibid. 174-76; Hölscher 1998, 43.
110 Camp 1992, 51; Pimpl 1997, 119-22.
111 Cf. Millett 1998, 224-27.
112 Aeschin., *In Tim.* 60.
113 Dem., *In Arist.* 80.
114 Aeschin., *In Tim.* 21.
115 Aeschin., *In Ctes.* 176.
116 Pimpl 1997, 119-22.
117 Dem., *In Eubul.* 31.

to the commercial aspects. The architectural development of the agora, especially the increasing use of stoas, seems to reflect a desire physically to delineate its border. It was defined as a unit in legal and religious terms. The stoas enhanced the concept of the agora as an exclusive and privileged space, at least partially in religious terms. This can also be seen in the use of colonnades to monumentalise temenos walls.

The dominance of stoas on Greek agoras makes their absence from Latin colonies more notable. The Romans rejected the concept of the stoa for their new colonies during the 4th and 3rd c. No known archaeological example of the *porticus*, the Roman equivalent, pre-dates the 2nd c.[118] It is almost inconceivable that the stoa was unknown to Roman architects, for no Greek agora on the peninsula or in Sicily has been found to lack stoas by the 3rd c. The four Latin colonies were being built during the stoa's zenith. Rome's rejection of it can be best seen at Paestum. At the time of the founding of the Latin colony a stoa (4th c.) stood on a line that corresponded with the S boundary of the new forum (fig. 13),[119] but it was demolished as part of the new forum's preparation, creating an open area near the middle of its S side. Possibly a small section was left intact, blocking the view of the *naiskos* of an archaic temple behind.

The Romans started to construct porticoes on fora during the 2nd c.[120] If a colonnaded border was seen as fitting for the forum in the post-Hannibalic world, why was it rejected in the 4th and 3rd c.? The answer is vital for understanding the Roman concept of the forum during the Republic (see chapt. 5).

Forum post-pits and the model/replica debate

Excavation at the four better-known Latin colonies has revealed rows of stone-lined pits along the edges of their fora. I will consider how the phenomenon has been interpreted by scholars and review the evidence. Until recently there has been no evidence to suggest that this cultural practice was derived from a Greek source, but a recent re-appraisal of the evidence from the Athenian agora suggests that there may have been a link (see below).

The existing debate on the function of the pits on Latin colonial fora is entwined with the issue of to what degree the Latin colonies were replicas of the mother city, so the following discussion also attempts to define more closely how colonial towns resembled Rome, and how not. I also draw together the conclusions presented up to this point in a (preliminary) characterisation of the processes that shaped the design of early colonial towns.

In the forum at Fregellae, a double row of 12 stone-lined pits was excavated along both the N and S short sides that appear to be aligned with one another (fig. 16).[121] They are all fairly uniform in size, with a square hole of c.30 cm.[122] F. Coarelli sees them as 3rd c., or even older. He believes they held mechanical devices to keep ropes defining voting lanes taut across the length of the forum. Coarelli has recently mentioned the discovery of some larger rectangular pits on the E side,[123] and a magnetometry survey revealed anomalies along the forum's border which require further investigation.[124]

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118 Nünnerich-Asmus 1994, 26-47.

119 Greco and Theodorescu 1980, 21 and 30-32.

120 For discussions on the development of *porticus* architecture, see Nünnerich-Asmus 1994; Gros 1996, 95-120; Coarelli 1998, 74-80.

121 Coarelli 1998a, 56-61.

122 This measurement is given by Coarelli (1998a, 56), although earlier (1997, 163) he gave c.45 cm per side.

123 Coarelli 1998a, 57.

124 Patterson et al. 2008, 129.

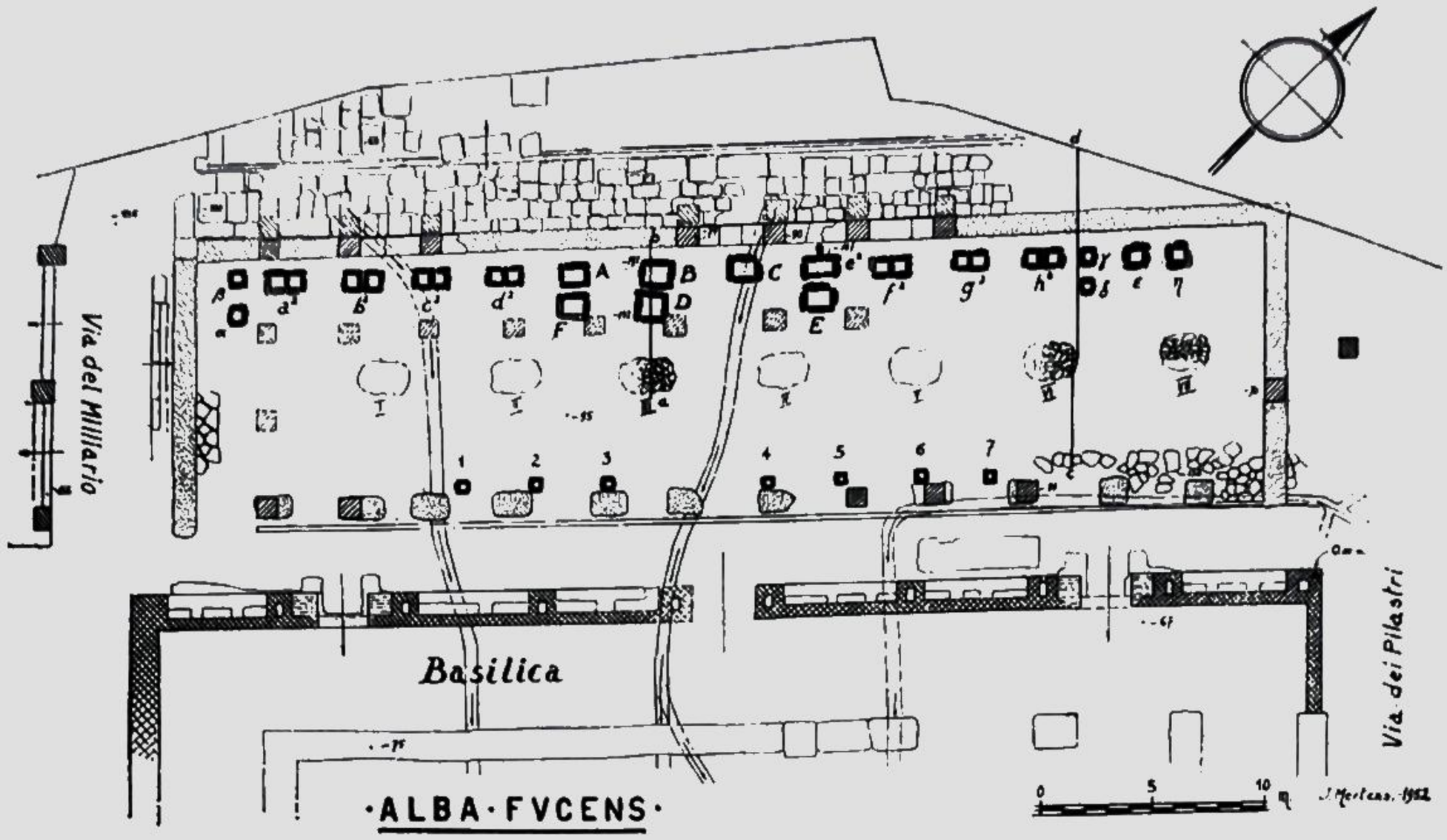


Fig. 26. Alba Fucens: stone-lined pits at the SW end of the forum (from J. Mertens 1969, 94 fig. 23. Reproduced by kind permission of the Institut Historique Belge de Rome).

At Alba Fucens, at the SE end of the forum, were several rows of stone-lined pits, some of which seem to have replaced others (fig. 26).[125] The first phase could be closed with roughly-hewn stone blocks with iron rings attached. The excavators arranged the pits into 6 different phases. Although each phase consisted of pits of differing sizes, none of the rows of each phase comprised more than 8 pits. They were dated from the mid-2nd to the early 1st c. The pits were then abandoned and a *porticus* was built over this area in the later 1st c. (fig. 17). The excavator, J. Mertens, linked the pits to the organisation of the comitia.[126] M. Torelli has interpreted the pits as somehow reflecting the number of voting units at Alba and sees the rectangular area within which they were found as a *diribitorium,*[127] a theory which has been refined by D. Liberatore.[128] The Diribitorium was a structure at the end of the Saepta in the Campus Martius where votes were noted and counted by election officials. The positioning of the structure in relation to the forum at Alba is similar to that of the Augustan Diribitorium to the Saepta at Rome. At the NW end of the Alban forum Mertens mentioned seeing a stone-lined pit which might have had some correspondence to those at the SE end.[129]

The forum of Paestum has a number of similar features, along with some unique characteristics (fig. 18). The overall plan shows a regular double row of pits on the three excavated sides of the space. Yet the situation is more complex than this plan suggests. Along the W end of the forum are two rows of stone blocks (some seem not to have survived) (fig. 27).[130] The inner row (closest to the forum) comprises rectangular blocks (*c.*0.6 x *c.*1 m) with two openings in each.[131] Most of these sockets are rectangular (max. dimensions *c.*0.15 x *c.*0.24 m), but some are square, others

125 De Visscher and Mertens 1951-52; Mertens 1969a, 92-96. For a more detailed description of these features, see Mouritsen 2004, 47-51.
126 Mertens 1969a, 92-96; 1988, 96-97.
127 Torelli 1991.
128 Liberatore 2004, 110-22 and 139-41.
129 Mertens 1968, 208.
130 Greco and Theodorescu 1999, fig. 3.
131 Krause 1976, 46, n.86.

nearly circular. The outer row of squarish blocks has similarly-sized sockets. The distances between the outer sockets and the nearest of the inner row vary by up to 0.5 m.

Rather than pits, the edge of the N side of the forum is equipped with two rows of stone slabs, although little of the outer row survives.[132] The inner row comprises limestone blocks (*c*.0.6 x 0.6 m) with recesses (*c*.0.18 m wide) cut into them; their surfaces are angled towards the outer row.[133] The outer row comprises rectangular blocks (*c*.0.82 x *c*.0.44 m) orientated E–W; C. Krause reported faint traces of two square recesses (0.2 m) on many. The N series is interrupted by the comitium in the centre, in front of which is a single row of blocks similar to those of the inner row, but more closely spaced. The S side of the forum has a near-identical double row of slabs along its length, except that none of the recesses within the inner row appears to be slanted towards the outer row.[134]

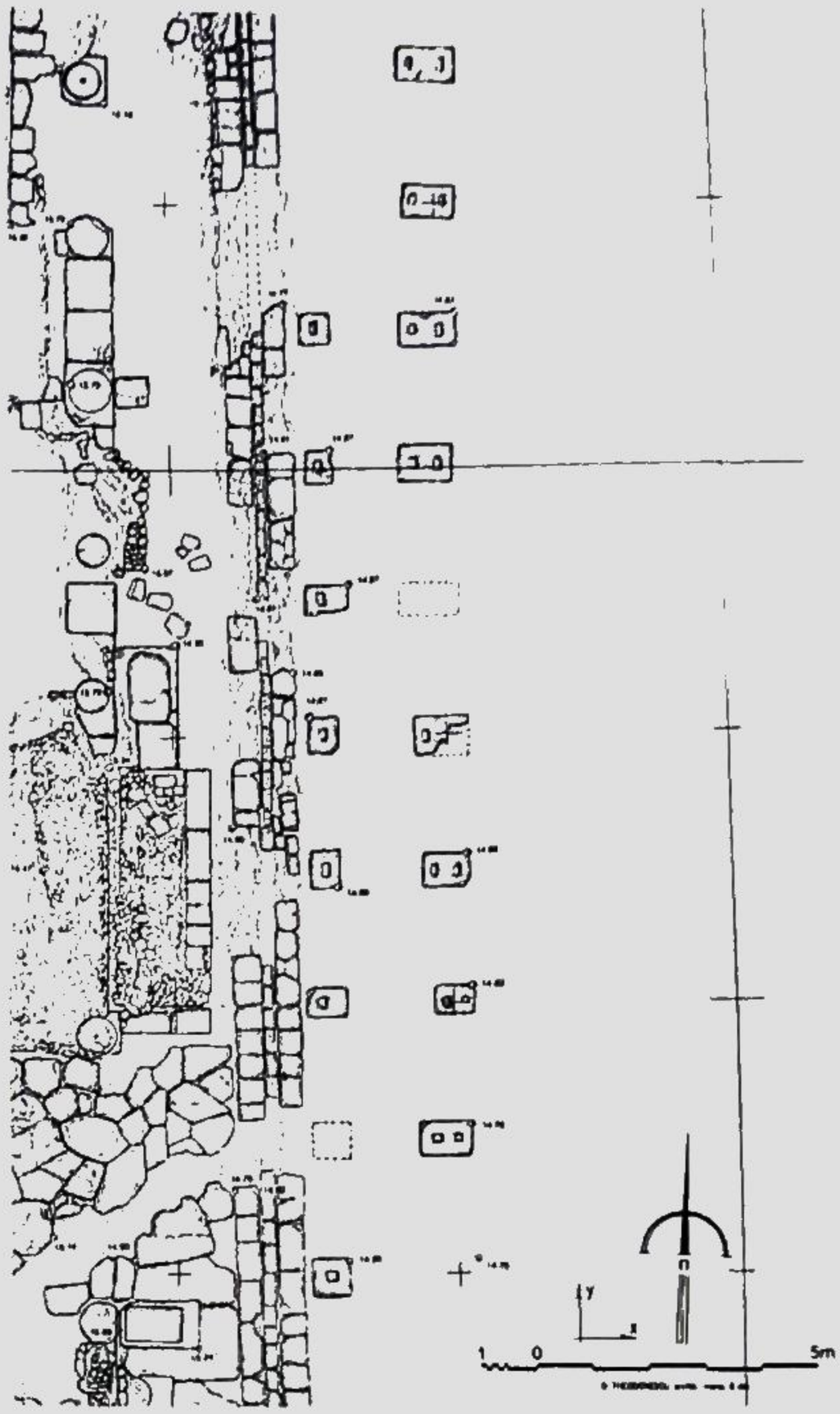


Fig. 27. Paestum: stone blocks along the W end of the forum (from Greco and Theodorescu 1999, fig. 3. Reproduced by kind permission of the École française de Rome).

The excavators proposed that the blocks may have supported posts belonging to a structure providing some kind of temporary cover while voting was taking place.[135] They are considered Augustan since they need to post-date a lowering of the forum's surface in the early Principate.[136] This event is connected with the construction of the forum *porticus*, the columns of which are aligned with the post-pads along the N and S sides. As H. Mouritsen points out, the blocks are also orientated on the axes of the 3rd-c. *tabernae* behind the portico,[137] which serves as a reminder that a similar arrangement might have existed in the Republican period. The blocks at the W end are not aligned with either the porticus or the *tabernae*. Torelli sees the double row as representing two phases, the second connected with the Augustan porticus.[138] He considers that the blocks supported posts to form a *templum*, a religious defined area (see below). Due to the form of the recesses in the N and S rows, it has been suggested that the inner row carried struts attached to the posts of the outer row.[139] Two pairs of larger (*c*.1 x 0.4 m) stone-lined pits were found on either side of the forum east of the comitium; Torelli considers them to be part of a *diribitorium* belonging to the early years of the colony.[140]

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132 Greco and Theodorescu 1987, figs. 13, 32 and 83.
133 Krause 1976, 46, n.86.
134 Greco and Theodorescu 1999, figs. 18 and 37.
135 Greco and Theodorescu 1987, 21-23.
136 Greco and Theodorescu 2000, 87.
137 Mouritsen 2004, 47.
138 Torelli 1999a, 22; 1999b, 48.
139 Krause 1976, 46-47, n.86; Torelli 1999a, 22; Lackner 2008, 278.
140 Torelli 1999b, 48.

The forum at Cosa was also equipped with stone-lined pits, grouped towards the SE end of the space (fig. 9). The excavators assign construction of the pits to three phases over the first hundred years of the colony. If my forum relocation theory is correct, however, the first of the pits would date from the 2nd c. onwards.[141] The initial phase consisted of two rows of 4 very large (*c*.1.8 x 0.9 m) pits on either side of the forum, irregularly spaced (8.14 to 9.47 m).[142] Subsequently, 12 smaller (0.6 x 0.6 m) pits were added, two between each of the first series.[143] Last came construction at the SE end of the forum of 24 new pits (0.5 x 0.5 m, 1.1 m deep), grouped in fours.[144] They could be closed by stone lids with iron rings attached to them (three were found *in situ*). To be complete, one must add an irregular row of pits directly opposite the comitium.[145] These were hewn into a row of travertine slabs (to a depth of between 0.15 and 0.3 m) set against the edge of the gutter on the SW side: 10 had rectangular openings (from 0.58 x 0.46 m to 0.1 x 0.05 m); 9 had circular sockets (diameter between 0.05 and 0.27 m); and 2 were semicircular pits (*c*.0.5 x *c*.0.3 m).

F. E. Brown suggested that the 4 large pits on either side of the forum at Cosa could have been planting boxes for trees.[146] He believed that trees could have divided this part of the forum into three, corresponding to the number of the colony's voting units, while the pairs of pits between them might have been for posts which supported awnings. The 6 groups of 4 pits along the SE end of the forum were also seen as linked with the number of voting units and voting procedures.[147] He suggested that at other times the later pits might have supported a temporary theatre stage. Due to the irregularity of their spacing, the row opposite the comitium was believed to have developed over time.[148] They were thought to have held inscribed pillars and posts with tablets attached to display statutes and other municipal information.

Similar pits are known from Latin colonies of the 2nd c. In the extreme SW corner of the forum at Aquileia (181) a single pit was discovered.[149] To this may be added the troubling evidence from Copia (193),[150] founded within the limits of the former Greek colony of Thurii. A number of pits were found across the N end of a partially-excavated open area situated to the south of the (W-E) Plateia B where it adjoins the (N-S) Plateia A. Both these major streets appear to lead to city gates, making their intersection, as Carando proposes, a likely location for the colony's forum.[151] Lackner supports the theory and reconstructs a rectangular plaza, orientated N-S; optimistically, she restores two rows of *tabernae* lining its W and E flanks based on structures found in the excavated area. Reference to two rows of four pits at the exposed N end of the hypothetical forum in excavation reports adds weight to the hypothesis.[152] They share the same E-W orientation but are not parallel. The N row comprises the familiar stone-lined pits, while the S row is described as "quattro basi rettangolari in pietra arenaria .... con alloggiamenti per pilastri verticali, a sezione rettangolari in tre casi, triangolare in uno (il secondo da Est), nel quale è conservato parte del pilastro."[153] Lamentably no dimensions or dating evidence are provided, but the *in situ* broken pillar suggests that they were in use well into the Principate. A poorly-preserved third row was later reported in the same area with a similar orientation.[154] The structures bordering the N limit of the hypothetical

141 Sewell 2005, 111.
142 Brown, Richardson and Richardson 1993, 13-14.
143 Ibid. 41-44.
144 Brown 1980, 41; Brown, Richardson and Richardson 1993, 119-20.
145 Brown, Richardson and Richardson 1993, 128-31.
146 Brown 1980, 24-25; Brown, Richardson and Richardson 1993, 13-14 and 41-44.
147 Brown 1980, 41; Brown, Richardson and Richardson 1993, 119-20.
148 Brown, Richardson and Richardson ibid. 128-31.
149 Tiussi 2006, 366.
150 Lackner 2008, 74-75 and 345.
151 Carando 1999, 175; cf. E. Carando in Greco and Luppino 1999, 126-31.
152 P. G. Guzzo in *Sibari* II, 432-33, fig. 388.
153 Ibid. 432.
154 P. G. Guzzo in *Sibari* IV, 192-94, fig. 150.

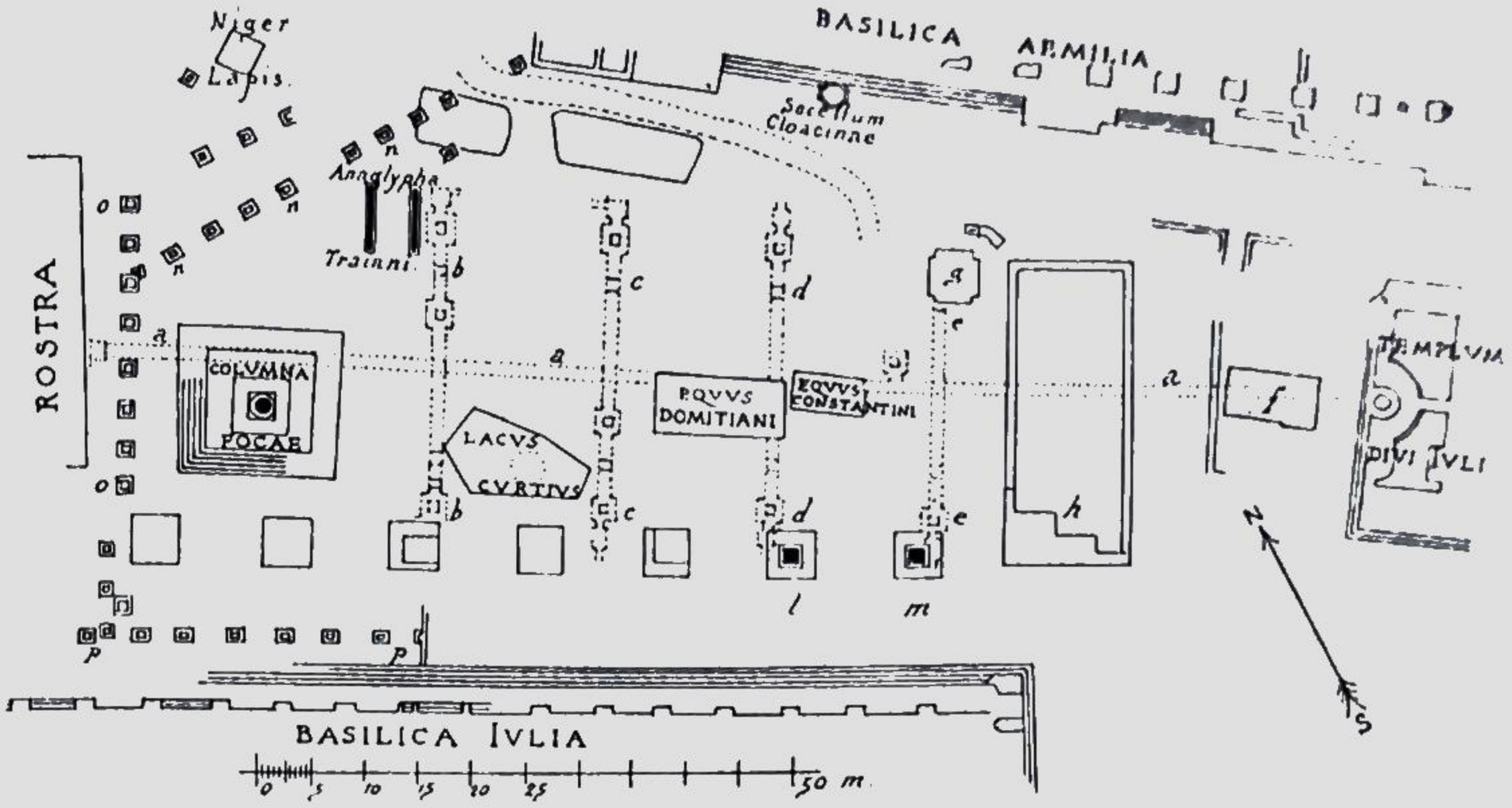


Fig. 28. Rome: stone-lined pits on the Forum (from Huelsen 1905, 129 fig. 66).

forum have been thoroughly investigated, providing the following sequence: the oldest feature is archaic, possibly a sanctuary belonging to the Greek colony of Sybaris, Thurii's predecessor.[155] From the Classical to Late Republican periods it was occupied by housing, to be followed in the mid-1st c. by a curious hemicircular structure, with a stage building in front, considered to be a theatre. The disturbing issue is that the excavated N edge of every other Latin colonial forum has revealed a comitium. At the same spot in the postulated Copian forum none was found, nor any sign that there had ever been one. The two possible conclusions are that either this was not the forum, or Copia had no comitium, the implications of the latter being more worrisome. From the dating, form and orientation of the theatre-like structure it is unimaginable that it functioned as a comitium — the moment of its construction is contemporary with the demolition of the comitium at Aquileia.[156] The area in which the pits were found seems to be public space, but only a small percentage of Lackner's putative forum has been investigated. This being the case, I am inclined to leave the evidence from Copia aside for the moment.

Several rows of stone-lined pits are known in the Forum Romanum (fig. 28).[157] Three pits are found in a row across the NW corner (0.78 x 0.52 m, 0.8 x 0.63 m, depth *c*.0.85 m; 0.75 x 0.55 m, depth 1.2 m).[158] It has been speculated that they once belonged to a larger series. Directly to the south of these three is a more intact row which could be closed with stone lids (row n–n, *c*.0.6 x 0.8 m, depth 1.5 m).[159] One of these pits was truncated by one belonging to a row running N–S across the W end of the Forum (row o–o). Another row was found in front of the Basilica Iulia on the S side (*c*.1.07 x 0.50-52 m), whilst others were uncovered at the E end of the Forum, both beside and beneath the Temple of the Divus Iulius.[160] Krause summarised the debate on the function of these pits, which was seen as being either 'ritual' or practical; in the latter category are drains and planting boxes, or

155 Greco 2003, 369-71.
156 Tiussi 2006, 362.
157 For a bibliography and discussions, see Krause 1976, 44-49; Coarelli 1983a, 145; 1985, 126-30; Mouritsen 2004, 60-62.
158 Krause 1976, 45, n.81.
159 Ibid. n.82.
160 Andreae 1957, col. 165; Cecchino 1983, 4-5.

post-holes connected with temporary tribunals, awnings, etc. Coarelli subsequently suggested that they were used physically to define *templa* required for political procedures.[161]

The discussion regarding the functions of these pits (or of what they once contained) has received new impetus from H. Mouritsen. Focussing on the fora of colonies, he has disputed the interpretations which relate to voting and its rituals.[162] The issues he raises are important. First, several scholars had suggested that the pits once contained structures related to voting procedures in the fora of colonies. Torelli likened the fora of the four colonies to the Saepta at Rome. Coarelli considers the forum at Fregellae to have functioned in the same way.[163] The pits are used as evidence, but so too is the shape of these fora, which appear particularly long (figs. 16-17),[164] sharing similar proportions with the Augustan Saepta in the Campus Martius and possibly with its Republican predecessor.[165] Mouritsen questions this interpretation, highlighting that the Saepta and Forum at Rome were two separate spaces with distinct functions: if Rome had provided the model for the Latin colonies, it is unlikely that fora in colonies combined the activities of both the Saepta and the Forum Romanum in a single space.[166] He further argues that, since there is no direct evidence for voting in the Forum before 145, the alleged practice of using the fora of colonies for voting could not have been based on an earlier precedent at Rome. If the urban model was replicated in the colonies, he maintains, it would have taken place in the comitium. In a response, Coarelli emphasises that elections which involved all the voting units of a colony would have required a large space for the task and therefore "they must have taken place in the forum".[167]

Mouritsen's argumentation was structured in terms of a major question about Roman urbanism during the Republic: to what degree did Rome's colonies resemble their mother city? When it comes to an archaeological comparison, Aulus Gellius' passage describing the colonies as *effigies parvae simulacraque* of Rome is often quoted.[168] This has been interpreted by scholars to mean that the colonies were to some degree replicas of their founding city. Gellius was writing in the 2nd c. A.D. and, while Coarelli highlights the breadth and precision of the text,[169] there are risks in assuming that the statement was applicable four centuries earlier.[170]

It remains essential to consider whether certain physical or institutional models were reproduced in the colonies, while keeping in mind the apparent application of Greek practices to Roman urban design (chapt. 2). The comitium/curia complexes of colonies are indeed evidence that Rome's political institutions were being reproduced to some degree along with their architecture.[171] Further, literary and epigraphic sources show that many of the titles of colonial magistracies were those known at Rome. At least from the 3rd c., some *vici* in colonies came to be named after the hills of the capital.[172] The presence of structures adjacent to Latin fora that appear to resemble the Carcer near Rome's Republican Forum seems to be linked to the juridical traditions of the mother

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161 Coarelli 1985, 126.

162 Mouritsen 2004. More recently, Lackner (2008, 274-78) has discussed them, drawing similar conclusions to Mouritsen on their function.

163 Coarelli 1997, 161-63; Torelli 1999a, 21-22.

164 Although not without exceptions, elongated fora continued to be feature of Roman towns into the early Principate: Conventi 2004, 197-200.

165 For a description of the structure, its functions and history, see Taylor 1966, 47-58.

166 Mouritsen 2004, 40-44.

167 Coarelli 2005a, 25-27.

168 Aul. Gell., *NA* 16.13. For the historiography of how this passage has been interpreted, see discussions in Bispham 2000, 157-58; 2006, especially 78-85. For examples of how it has been interpreted, see Richardson 1957, 49; Torelli 1988, 65; 2007, 164 and 179; Zaccaria Ruggiu 1995, 33-38; Coarelli 1998a, 57; 2005, 24-28; Fentress 2000a, 13; Mouritsen 2004, 38.

169 Coarelli 1998a, 57; 2005a, 25.

170 Cf. Fentress 2000a, 13; Zanker 2000, 40-41; Bispham 2006.

171 Mouritsen 2004, 39.

172 Toynbee 1965, 138; Coarelli 1998a, 57-58; Bispham 2006, 87; cf. Stek 2009, 133-37.

city. The proposal regarding *insulae* planned for *tabernae* on Latin fora seems to be derived from an aspect of the Republican Forum (see further chapt. 5). The following chapters will also propose that Rome's timocratic and patronage systems are tangible in the physical design of the colonies. In short, it seems that the model/replica theory has particular resonance when colony and mother city are compared on a political level, a view strengthened by the observation that, apart from the comitium's *cavea*, the design and architecture of fora in colonies of the 4th and 3rd c. do not appear to have been based on Greek models.

At the same time, I agree that there are limitations to the model/replica theory.[173] It is clear, for example, that Latin fora were intended to be architectural copies of the Republican Forum only in a restricted sense. In the early 5th c. the two dominating temples of the Dioscuri and Saturn are reported to have been constructed on the Forum Romanum,[174] but no temple of such a scale has been found on the forum of a Latin colony. Preliminary evidence from Fregellae indicates that a small temple at the NE corner of the forum may date from the founding years of the colony.[175] No substantial cult building was apparently constructed on the fora of Cosa and Paestum before the end of the 3rd c., and it is doubtful whether there was ever a temple on the forum at Alba Fucens.[176] As Torelli says, political architecture appears to have been the first priority on Latin fora.

Rome grew organically. Although some parts of the city were re-designed on occasion, the street system was not planned from the start. Thus the orthogonal planning of the *ex novo* colonies was not based on a system seen at Rome[177] but rather on the organisation of space witnessed in Greek cities. Foreign models were adapted while specific Roman traditions were integrated into the planning of the Latin colonies. There was purpose behind this selectivity. It conveys the sense that the Romans adopted a pragmatic approach to their design of their post-338 foundations.

This is relevant to the discussion on the function of Latin fora. The mother city had multiple fora: the Forum Romanum was the political centre, but the Forum Holitorium and the Forum Boarium were also ancient. The tradition of multiple fora continued into the Principate when emperors built their own fora close to the heart of the city. Up to the early mediaeval period there are references to at least 21 individual fora in Rome.[178] The only additional fora at Latin colonies for which we have information were seemingly related to commercial activity, namely the *forum pecuarium* known from Aquileia[179] and a similar market hypothesised for Alba Fucens.[180] Some of the political activities which took place in numerous open spaces of the capital may have been assigned to the single (but comparatively large) forum that each Latin colony originally possessed: colonial fora may therefore have been intended to be more multi-functional than the Forum Romanum.

There is no indication that Latin colonists voted in an extramural area equivalent to the Campus Martius. A *campus* could be a feature of Roman towns, especially during the later Republic and early Principate, but epigraphic sources imply that it was used for sport and paramilitary exercises.[181] An undated terrace (38.5 x *c.*48 m) supported by polygonal masonry on two sides was located directly outside the SE gate at Cosa (fig. 5).[182] It was considered either a market-place or an extension of the defences by Brown, and as a *campus* by Devijver and van Wonterghem.[183]

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173 Fentress 2000a; Zanker 2000; Mouritsen 2004; Coarelli 2005a, 27; Bispham 2006; Becker 2007, 30-31.
174 Zanker 2000, 34.
175 Coarelli 1998a, 60.
176 Torelli 1999b, 45.
177 Fentress 2000a, 13. Cf. Livy 5.55.5; Tac., *Ann.* 15.43.
178 *LTUR* II 1995, 287-360.
179 Cf. Tiussi 2004.
180 Torelli 2007, 170-71. Multiple fora are attested in Latin colonies during the Imperial period: Lackner 2008, 256 n.250.
181 Devijver and Wonterghem 1981, 1984 and 1985.
182 Brown 1951, 45, fig. 34.
183 Devijver and Wonterghem 1981, 60; an interpretation supported by Lackner (2008, 83-84 and 278-79).

Lackner suggests that an undated L-shaped wall c.120 m to the west of Cales might have defined a *campus*.[184] The best-known example is found directly outside the N limits of Alba Fucens (fig. 4). This gigantic terrace is dated to the mid-1st c. and interpreted as a *campus* with *heroon*.[185] Torelli also proposes that an open area immediately north of the forum at Paestum was a *campus* intended for military training.[186] It has been suggested that the tendency for the fora of the known Latin colonies to be long (e.g., at Alba Fucens and Fregellae) was due to them being based on the Saepta in the Campus Martius, a space with elongated proportions.[187] In the absence of a Greek model for this characteristic, we may reasonably turn to Rome in a search for the origin. For Latin fora to have been designed to incorporate the functionality of the Saepta would be consistent with the pragmatism seen in other aspects of early Roman town-planning.

Connected with the interpretation of fora in colonies functioning as *saepta* is the belief that the post-pits were connected with the concept of a *templum*.[188] A *templum* was a ritually-defined square or rectangular space, freed of spirits by augurs, in which, according to augural law, political procedures such as voting had to take place.[189] The Comitium at Rome is described in the sources as a *templum*, which is why assembly-places in the colonies are believed to have been placed within a square or rectangular structure.[190] In connection with the theory that the fora in colonies were used for voting, it has been proposed that they (or parts of them) were inaugurated *templa*.[191] The pits may have supported posts to which planks or linen bands were attached for the purpose of physically defining the *templum*. The ambiguous character of the sources, however, has made it difficult for scholars to agree on exactly which areas connected with political activity were designated as *templa*. Mouritsen has emphasised the difficulties in reconciling the technical descriptions of *templa* with the layouts of forum pits.[192]

The issue of the *templum* is also of interest here in relation to the stoa. The belief that the limits of the forum (or a portion of it) defined a religious space, if correct, creates a comparison with the Greek setting.[193] Yet the sacred character of the forum was quite different to that of the agora. The Greek citizen who entered the agora was possibly always aware that the space held a different religious significance to that outside its limits. In the Roman context, however, the sacral nature of the forum (or parts of it) seems only to have played a rôle during official procedures relating to the comitia and the voting process. As the design of fora in Latin colonies seems to owe little to that of the agora, could differences in the politico-religious perceptions of Greek and Roman market-places be reflected in a Roman rejection of the Greek model? This contrast is limited to a religious definition of the public *space* since there were, of course, individual cults found on both Greek and Roman market-places.

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184 Lackner ibid. 62 and 344. Originally published by Johannowsky (1961, 265).

185 Mertens 1969a, 113-14; Devijver and Wonterghem 1981, 57-60; Lackner (2008, 22-23) argues unwisely for a predecessor on the spot since the foundation of the colony, based solely on it being "die günstigste Position für eine solche Terrassenanlage an der Hügelkuppe".

186 Torelli 1999a, 35-38; 1999b, 65-71; *contra* Lackner 2008, 278 n.411, whose counter-argument rests on its intramural location. But not every *campus* was located outside the walls: Devijver and Wonterghem 1984, 201-2.

187 Coarelli 1997, 161-63; 2005, 27; Torelli 1999b, 48. Cf. Taylor 1966, 47-58.

188 Coarelli 1985, 127; Torelli 1991, 43-44.

189 For discussions on this theme, see Vaahtera 1993, 107-16; Coarelli 1997, 155-63; Torelli 1999a, 20-22; Mouritsen 2004, 57-62.

190 See above n.77.

191 That all four were: Torelli 1999a, 21-22. For Cosa: Coarelli 1985, 127; Torelli 1999b, 48. For Paestum: Greco and Theodorescu 1987, 22-23. For Alba Fucens: De Visscher and Mertens 1951-52, 13; Torelli 1991, 42. For Fregellae: "spazio inaugurato del foro" (Coarelli 1998a, 56).

192 Mouritsen 2004, 57-63.

193 Cf. Coarelli 1985, 11-21.

Because the physical characteristics of the pits are so different at each of the 4 sites, Mouritsen maintains that "the heterogeneous and unstable nature of the structures means that they cannot be direct copies of any Roman institution".[194] This reflects the influence of Aulus Gellius' text which has led scholars to seek replicas, or 'little Romes'. However, if we accept the idea that Roman city-designers were willing to adopt foreign ideas, and if we consider that colonial fora may have been more multi-functional than the Forum, the model/replica theory begins to appear simplistic. Since he was unable to detect any aspects of the pits which unified them on a functional level, Mouritsen placed his chief emphasis on their dissimilarities with one another, which invokes a sense of inevitability about his conclusion: "Given their differences in size, shape and layout, they are more likely to have served a variety of different practical or ritual purposes, whose exact nature cannot be reconstructed".[195]

Mouritsen has highlighted local differences in the arrangements and sizes of pits, but they possess certain characteristics which are repeated in a number of contexts. Aspects of the pits link them in certain ways to each other and also to those on the Forum Romanum. It may be helpful to review the existing interpretations as to their functions. The excavators of the 4 Latin colonies have independently linked the pits with voting in some way, although Mouritsen is correct in highlighting the discrepancies among their theories. The most specific interpretation is provided by Coarelli, who reconstructs mechanical winches slotted into the pits when voting took place on the forum at Fregellae; their function was to support and tighten the ropes which served to divide the voting lanes across the length of the forum.[196] At Cosa, each of the three phases of pits is interpreted differently due to the distinctions in their layouts, sizes and numbers. The earliest, the largest, were deemed to be planting boxes, while the 12 smaller pits later placed between them were to support posts with awnings attached, and the last series with the smallest openings was associated with somehow defining voting lanes and may also have supported a temporary stage. The greatest number of pits is found on the forum at Paestum, where, not unlike those at Cosa, they are interpreted as containing posts to which a temporary awning was attached to provide shade during the voting process. Mertens states only that the pits at Alba Fucens were related to the organisation of comitia but is not specific how. Torelli believes the pits at Alba were part of a *diribitorium* and that their number was related to that of the voting units, but does not explain exactly what was placed in the pits. Mouritsen offers two more interpretations, that the smaller pits in the colonies might have supported temporary seating for gladiatorial games or structures related to the commercial aspect of the forum.[197] Lackner, while tendering some of the same ideas, also proposes that they could have supported a barrier to seal off the space during gladiatorial or other spectacles.[198]

The problems begin when we consider what the pits contained because, apart from the "parte del pilastro" in a pit at Copia, no indisputable trace of their contents has been found. The pits possibly offer negative impressions of the section of objects that were placed into them, but there are no means to verify how such structures may have extended above ground. At Cosa, the "transitory traces of carbonized rootlets" of an unidentifiable tree species was found within one of the largest pits.[199] Although such planting boxes are not without parallel, the Cosan examples are rectangular, with proportions of 1 : 2, which seems inappropriate for the radial growth of tree roots. A tree may well have taken root above the pit at some point, but the 'rootlets' are insufficient evidence that they were *designed* to contain trees.[200] As we lack any archaeological means to determine what

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194 Mouritsen 2004, 57.
195 Ibid. 62.
196 Lackner (2008, 279 n.421) argues plausibly that, regardless of the strength of these winches, they were unlikely to prevent the ropes sagging over a distance of 145 m.
197 Mouritsen 2004, 63.
198 Lackner 2008, 278.
199 Brown, Richardson and Richardson 1993, 13.
200 Coarelli (2005a, 29) offers alternative evidence that questions the planting-box theory.

these features contained, it is also very difficult to discount interpretations. Further, the pits are extremely difficult to date.[201] Pits on Fregellae's forum must pre date its destruction in 125 and the 1st-c. date for the porticus at Alba Fucens would make the pits beneath it Republican, whereas the post-pads on the N and S sides of the forum at Paestum should be Augustan.

For the moment I will consider solely the physical evidence — what is there, rather than what is not. To complement Mouritsen's focus on the contrasts, it is also necessary to examine the *similarities* the pits share, however basic they may be. On a general level, there seems to be some agreement that the pits were "a characteristic feature of the mid- and late Republican Latin colony".[202] This may be corrected since they could also be an aspect of Caesar's veteran colonies. Some have been found on the forum at Todi (*Colonia Iulia Fida Tuder*) in Umbria.[203] They vary in size (0.38 x 0.46 m to 0.5 x 0.7 m), and so find analogy with those on Latin fora inasmuch as differing sizes of pits (with the sizes of their openings lying within the overall range of the other examples) are found together and in rows. Others were discovered on the forum at Concordia Sagittaria (*Colonia Iulia Concordia*) in the province of Venice, where they assume a unique form.[204] Cobbles form the base of the pits upon which a column of bricks was placed, each course consisting of a Π-shaped brick abutting a rectangular one, creating a quadrangular frame (0.45 m on a side) around a square void (0.16 m on a side). Stacked, the bricks formed a shaft that was capped at ground level by a stone with a square opening (0.16 m on a side). Three such pits were found in excavations of 1989-90, but they match the account of those found during a more extensive investigation in the last quarter of the 19th c. The earlier description reconstructed a single row of pits defining the entire perimeter of the forum (130 x 100 m). In addition, a slightly elevated, central rectangular area (90 x 40 m) of the forum had a double row along both of its long sides (3 m separating the double row, 1-1.5 m between pits in a row) and a single row along both the short sides.[205] With the excavations of 1989-90 having recovered only three of the pits *in situ*, the accuracy of the 19th-c. account could not be verified. Since the only other market-places in Italy where such pits have been found are at Rome or the Latin colonies, it seems possible that we are dealing with a related practice.[206]

At least some of the pits at both mother city and colonies (Rome, Alba Fucens, Cosa, Todi) had stone lids with metal rings attached, suggesting they were used intermittently. This practice has influenced modern interpretations, several of which are related to periodic activities, such as political procedures, gladiatorial games or the theatre, and commerce. Despite differences in the layout at each settlement, what remains consistent is that the pits are found in rows along the edge of fora (with the possible exception of Todi where the border of the forum has not been securely identified). At Fregellae, Paestum and Cosa, many (but not all) of the pits on one side (or end) have a symmetrically matching row on the other side (or end) of the space (due to the limited data from Alba Fucens, it is not possible to say if any of the pits at either end corresponded). This suggests that the pits having counterparts on the other side (or end) of the forum were functionally linked with one another in some manner. Achieving symmetry requires an effort that has its own significance.

The lack of uniformity in pit sizes probably means that they had different functions. The dimensions of some are suitable for holding posts, but others are simply too large. Mouritsen has highlighted this, but it is difficult to support his interpretation that the functions were probably

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201 Ibid. 28.

202 Mouritsen 2004, 64; cf. Coarelli 2005a, 23-24.

203 Bruschetti 1995, 495-96; Mouritsen 2004, 64.

204 Di Filippo Balestrazzi 2001, with further references. She believes the earliest pits might pre-date the colonial foundation.

205 Ibid. 127.

206 A recent interpretation regarding similar features on the Athenian agora is discussed below.

unrelated to one another, since pits of different sizes are found *together*. The best example is Alba: the first phase of pits in the S area is believed to be a row of double pits, each with a square opening (*c*.0.45 m on a side, depth 0.60 m), and set in two groups with a gap of *c*.13 m between them. These could have supported large posts. In the next phase, a group of 6 larger pits (up to *c*.1 x 0.7 m, up to 0.6 m deep) were placed in a contiguous row between the two groups of the first phase, and along the same axis. Their openings, however, are too large to suppose they accommodated posts. Pits with different-sized openings are also found close to one another on the same or a parallel axis at Rome, Alba Fucens, Cosa, Paestum and Todi. If the variety in pit sizes means that they had different, unconnected functions, as Mouritsen suggests,[207] why should they consistently be grouped? After all, fora in colonies provided ample space. It seems more likely that the functionality of the different-sized pits was linked in some manner. Some of the pits on the Forum Romanum and in fora of colonies share this aspect with one another.

A method of analysis not yet consistently applied to all the relevant settlements is to determine if the arrangements of pits respect any other physical features on the forum. It has been done for the Forum Romanum, where it is relatively easy to obtain a reading. The rows of pits at the northwest do not respect the alignment of the forum border but instead the orientation of the Republican Rostra and the Comitium to the north.[208] The pits lining the W end respect the forum edge as it was after the construction of the Rostra of Caesar. Krause therefore attributes them to the sixth forum pavement.[209] Although this does not exclude the possibility that they are earlier than Caesar's restructuring, the pits do seem to be later than those in front of the earlier Rostra on stratigraphic grounds. In both these phases of the Rostra, then, there was a row of pits in front of them. The S row is also in front of the Basilica Iulia (formerly the *tabernae* in front of the Basilica Sempronia). Some others were found at the E end,[210] and it may be that the positioning of those pits aligned with the forum edge was determined by the border, rather than by individual buildings. This cannot be said, however, of those in front of the Comitium.

The situation at Fregellae is difficult to read because, although there are more pits on the E half of the forum where the comitium is situated, that might have been influenced by some other as-yet-unidentified feature. The problem is the same at Alba Fucens where very little of the forum has been fully excavated. The pits at the S end are roughly opposite the comitium, but they were not placed in evident symmetry to it:[211] they are close to the basilica, but it is separated from them physically and symbolically by a street. A pit was identified in front of the comitium at Alba but not investigated further.

At Paestum, the comitium plainly influenced the arrangement of post-pads since there is a break in the row directly on either side of it. A separate line of blocks in front of it is more closely spaced than elsewhere. There is also a gap in front of the forum temple, which is explained by the presence of another small structure on this spot (fig. 18). Torelli calls it a "balustrade" upon which he sees displayed "the text of newly proposed laws".[212] This conforms to his argument that the temple was dedicated to a political cult (see p. 44). The general plan of the forum shows a gap in the row of pits at the SW entrance, and one at the extreme north of the W end in front of a small temple, of the late 2nd or early 3rd c. A.D.[213] The situation on the ground, however, is somewhat less coherent than the restored plan suggests, since haphazard survival of the pits has left a gap in this

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207 Mouritsen 2004, 62.
208 Gjerstad 1941, 98-129; Krause 1976, 44-47, especially 45; Coarelli 1985, 130.
209 Krause 1976, 45, n.82.
210 Cecchino 1983, 4-5.
211 Mouritsen 2004, 51.
212 Torelli 1999b, 48.
213 Greco 2008, 28, who identifies it as a Lararium. Torelli (1999b, 68-70) suspects it was dedicated to Mercury. Cf. Modugno 1999; Crawford 2006, 66-67.

area which is considerably greater than the width of the small temple. The only clear influence on the arrangement of the pits is the comitium and the structure directly in front of the small temple which probably housed a political cult.

At Cosa, the layout is very different as the pits are grouped towards the SE end of the forum and do not seem to lie in front of any particular building. The space they occupy does not coincide with any simple fraction of the forensic space, but the northwesternmost pits on either side of the forum create an axis which corresponds with the SW wall of the comitium. In other words, the SW edge of that building seems to have marked a limit beyond which no pits were set, except for the irregular row directly opposite the assembly-place.

At Todi, the presence of buildings around the area of the forum dating from the mediaeval period onwards means that no analysis is possible.[214] If there had been a comitium, it would be a first for a veteran colony — or indeed any Roman colony. Similar problems prevent a reading at Concordia Sagittaria, compounded by a lack of data to corroborate the 19th-c. observations.

In brief, at Rome, Cosa and Paestum the arrangements of pits are clearly influenced by the comitium. At Paestum, the small forum temple for a cult linked to the town's political institutions also influences their arrangement. Thus, when the layout of pits is visibly influenced by any forum buildings, it is by ones associated with political life. This in turn suggests that the pits were linked with political activity in one way or another. Although the results are not fully consistent for all contexts where pits appear, several characteristics suggest that the function of the pits was a cultural practice derived from Rome. The only contexts in which stone-lined pits are found in rows on the edge of market-places are Rome and her Republican colonies. In both colony and mother city the pits were situated along the edges of fora; at least some had stone lids (meaning that they were used periodically); and differently sized pits were placed on the same or related axes. It should be emphasised that their association with the political life of the colony, alongside the view that they were derived from a Roman model, was assumed, independently, by each of the excavators of the four Latin colonies.

Interpretations linking the pits to practical functions run into some difficulties on other grounds. For example, many of the pits are suitable for containing posts which may have supported structures. Periodic wooden constructions, such as stage buildings, seating-stands and commercial architecture, have been proposed. Possibly suited to the last two might be the double row of post-pads along either side of the forum at Paestum, since it seems as though the posts would have needed to be attached to one another laterally to stay upright. But this idea stumbles on the separate, single row of identical blocks in front of the comitium. Further, the activities represented by such structures were not limited to the fora of Rome and her Republican colonies. Thus, an answer needs to be found as to why similar pits have not been found in other market-place contexts. The wooden architecture theory also falls foul of Mouritsen's own observations because otherwise, unless we are to believe that there was no architectural canon for such utilitarian structures during the Republic, it is hard to explain why the layouts, numbers and sizes of pits vary so much.

One of the problems Mouritsen raises in associating the pits with *templa* and voting is that their arrangements do not correspond with the descriptions by the ancient sources.[215] One needs to question whether we should be looking for direct correlations. On the one hand, there are still large gaps in our understanding of the archaeology, while, on the other, disagreements about the relevant literary sources are common.[216] We should not expect coherence to arise from a comparison of

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214 See Tascio 1989.

215 Mouritsen 2004, 59-62.

216 On where electoral voting took place in Rome, see Mouritsen 2004, 41, *contra* Coarelli 2005a, 26. That political procedures should take place within a *templum*, Coarelli 1983a, 140; 1985, 18-19; *contra* Vaahtera 1993, 104-10; cf. Carafa 1998, 117-18. That the Saepta were not a *templum*, Vaahtera 1993, 107-12; *contra* Coarelli 1997, 156-57. On the temporary nature of some *templa*, Mouritsen 2004, 59-63; *contra* Coarelli

lacunose archaeological and debatable written sources. Further, there appear to be regional differences in the way augury was interpreted. Even the augural *templum* confidently identified as such at Bantia[217] possesses features that are hard to reconcile with the descriptions by Roman authors.[218] Augural law seems to have been interpreted differently over time.[219] These observations are important because the archaeological data provided by the pits in colonies come from multi-regional contexts not all of which are dated closely.

Despite the heterogeneity of the evidence, then, it seems most likely that the pits were employed somehow during voting procedures, but the results of the above analysis do not allow a more precise interpretation of their function. This conclusion would seem to corroborate the views of Coarelli, Torelli and others who link the pits with *templa* and voting, but it does not add weight to their individual interpretations (e.g., that the pits at Alba Fucens were a *diribitorium*, or that the pits at Fregellae supported winches).

The political association with the pits appears to have influenced a recent proposal by E. Lippolis concerning not dissimilar features on the Athenian agora.[220] A row of 5 stone blocks (0.47 m on a side, 0.38 m deep), with square (0.12 m) openings, 0.12 m deep in their centres, was found in the early 1970s. They were set transversally across the Panathenaic Way but without respecting its orientation, some 50 m from its NW entrance into the agora. T. L. Shear hypothesised that there were originally 11 such blocks stretching across the avenue;[221] they were dated to the 5th c. and associated with a starting line for horse races. Lippolis drew attention to a fragment of Philochorus which states that the agora was equipped with 10 wooden gates through which members of the 10 Athenian tribes would file during voting procedures for ostracism.[222] From a passage in Plutarch it seems that a part of this structure was next to the Altar of the Twelve Gods,[223] exactly where the blocks themselves have been found. While Lippolis is right to highlight the flimsiness of Shear's starting-line interpretation, the archaeological investigation revealed no sign of the hypothesised continuation of these blocks. In short, although the voting-lanes theory is attractive, it is insufficient to support a link with similar features found on Latin colonial fora.

Forging individual identities

Mouritsen also suggests that the discrepancies in the numbers, forms and layouts of the pits may relate to the local situation, observing that the dissimilarities make each colony appear unique.[224] His focus on the variety seen in the archaeological evidence is important, as is his belief that local circumstances determined the diversity.[225] We must not lose sight of the fact that each colony was indeed singular: the distinctive physical character of each was forged from the moment of foundation. The individuality each colony could possess is seen when one contrasts Cosa and Paestum. Sister colonies founded in 273,[226] historical circumstances cannot be used to explain their differences. The 96 ha defined by Paestum's walls completely dwarf Cosa's 13.25 ha.[227] Paestum lay on level ground within a pre-existing city that was more than two and a half centuries old at the time of the Latin foundation, whereas archaeology has revealed no previous settlement on the hilltop

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2005a, 29-30.

217 Torelli 1967.

218 Linderski 1986, 2285-86, whose extensive article has references to all the ancient sources that refer to *templa*.

219 Ibid. 2153.

220 Lippolis 2006, 44-50. I owe this reference to E. Curti.

221 Shear 1975, 362-63.

222 Philoch. fr. 30.

223 Plut., *X Orat.* 847a.

224 Mouritsen 2004, 64.

225 See also the discussions in Bispham 2006; 2007, 152.

226 See Curti, Dench and Patterson 1996, 173; Torelli 1999b, 43.

227 Cosa: Brown 1980, 10. Paestum: Pedley 1990, 32.

site chosen for Cosa. It is possible, then, to select aspects of the colonies which set them apart from one another. Yet the architectural and planning elements which colonies share give hints about Rome's strategies and even the ideology behind the design of her colonies.

Cultural differences are particularly apparent when one contrasts the urban religious landscapes of the Latin colonies. There appears to have been variety in the cults found in each town.[228] As Torelli says, "flexibility was and remained the determining factor of Roman colonial policy in terms of religion, at least until the 2nd c. B.C."[229] Pragmatism is at work again. New cults arrived in areas where colonies were founded, but pre-existing cults could survive and local traditions could have a strong influence.[230] In each settlement the particular constellation of cults appears to have been unique, a point that creates a difficulty for the model/replica theory. The blend of foreign and local deities created a cultural identity that was specific to the new town. On the one hand, cults familiar to the Roman colonists were reproduced in Latin colonies, maintaining the link with the mother city; on the other, the incorporation of local gods seems intended partly to legitimize the presence of the new town.[231]

Possibly even the basic design of a new town could be partly shaped by local tradition, as M. Millett has suggested for the Falerii Novi site.[232] Although the legal status of the Roman town remains unclear, its construction is related to the defeat of the Faliscans by the Romans, who destroyed their old settlement in 241. The general topography of Falerii Veteres has been generally established and a comparison of the old and new settlements reveals some striking topographical similarities. The course chosen for the new defensive circuit may have been influenced by a desire to define an urban area that incorporated physical features similar to those of Falerii Veteres. Cutting back the natural rock at the foot of the walls in places created artificial cliffs resembling the steep sides of the former settlement; it also permitted a continuation of the practice of cutting tombs into their faces.

As Rome allowed the Latin colonies to have the organs of self-government, each town had its own political identity. Their semi-independence is reflected in the fact that the Latin colonies did not have to accept all the demands Rome made of them.[233] The individuality of the group of cults in a colony perhaps complemented Rome's policy of establishing a unique political identity for each town. The individual politico-religious identity of many of the Latin colonies is expressed by the coins they minted, which often portrayed images of divinities specific to the town.[234]

Is, then, the individuality seen in the arrangements of the pits on fora in Latin colonies somehow connected to the particular identities that Rome allowed the colonies to shape for themselves?

Adapting Roman models

The degree to which Roman political institutions could potentially be adapted is perhaps reflected in the diversity of architectural solutions and extensions of the curia buildings adjoining the comitia at Cosa, Paestum and Fregellae. At Cosa, a single building (30 x 20 ft) was placed above the circular assembly to the northeast.[235] At a later point, two similarly-sized rooms were attached to either side of the central hall.[236] At Paestum, apparently three separate and equal-sized structures

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228 Torelli 1999b, 31-42 and 52-79; Bispham 2006, 92-127.
229 Torelli 1999b, 42.
230 Stek 2009, 17-33. On the potential survival of pre-Roman religious practices at Paestum, see recently Crawford 2006, 65-67.
231 For the case of Venusia, see Torelli 1999b, 93-94. Luceria: ibid. 94-97. Paestum: ibid. 49-65; Crawford 2006, 64-67. Copia: Torelli ibid. 128-29. Cf. Bispham 2007, 214-15.
232 Millett 2007, 73-81.
233 Toynbee 1965, 255; Bispham 2007, 133, but see also the important discussion ibid. 113-23.
234 Torelli 1999a, 96-97.
235 Brown 1980, 23; Brown, Richardson and Richardson 1993, 24.
236 Brown, Richardson and Richardson 1993, 139-42.

(40 x 30 ft) were set immediately north of the comitium from the beginning.[237] This arrangement was modified by the addition of a porticoed platform across the width of the comitium, adjoining the S façades of the three rooms. At Fregellae, there was only ever a single hall (40 x 30 ft) above the comitium, to the front of which a platform was added at some point.[238] The area of the curia underwent a radical transformation, with the construction of 4 rooms either side at ground level, surrounded by a portico.

Despite these differences, scholars assume that these structures were modelled on the Curia Hostilia in some way:[239] the sources attest a close physical relationship between Rome's Curia and Comitium,[240] and the colonial structures match it so well that no doubts have been raised. Yet how else are we to explain the architectural differences unless it is due to the colonies having been allowed to develop their own political systems to a certain degree? The debate has run aground on the question, 'Replication or not?' Instead, we should suppose that particular Roman institutions, along with their corresponding architectural forms, were *adapted* for the colonies.[241] By replacing the concept of replication with that of adaptation, we need not exclusively seek direct copies of Roman institutions, but rather ones influenced by Roman originals. The similarities the colonial pits share with those on the Forum Romanum seem due to them being at least partly based on this model, while the differences will serve as the signs of adaptation. Within certain limits, Latin colonies appear to have been able to develop their own political identities, so local circumstances may have influenced the particular solutions chosen. For the colonial context, voting procedures and voting units may well not have been standardised,[242] although there was a degree of derivation from the Roman model. The heterogeneity of the archaeological data cannot thus be used by itself to argue that particular colonial features were not influenced by Roman originals.

Political separation from Rome?

In discussing the uniqueness of each colony, Mouritsen emphasises that the colonies were politically separated from the mother-city.[243] Yet to what degree were they politically separated? Determining this might help us comprehend the reasons for both their individuality and their adaptation of Roman models.

For Fregellae there is some anecdotal evidence that there were limits as to how far a Latin colony could distance itself politically from Rome. The preliminary report states that the comitium was systematically demolished immediately prior to the destruction of the colony,[244] and practically all the excavated *domus* near the forum were radically re-organised and put to industrial use.[245] This suggests that Fregellae's political institutions and its ruling class were somehow in a state of crisis. It seems more than a coincidence that these events affecting the comitium and *domus* took place immediately prior to the obliteration of the settlement by Opimius and his army in 125. Rome's reaction to the perceived disloyalty of Fregellae emphasises the importance of this part of the relationship. The colonies' loyalty to Rome was an essential precondition for the functioning of a strategic system of fortified towns she created both to defend herself and to assist in the task of territorial augmentation. The Latin colonies counted many Roman citizens amongst their colonists, which helped in the maintenance of various forms of bond between colony and mother city, not the

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237 Ibid. 258-59.
238 Coarelli 1998a, 59.
239 Inscriptions that refer to curia buildings have been found at Cales (334) and Carsioli (298): Lackner 2008, 260.
240 Livy 1.36.5; 1.48; 45.24.12.
241 Instead of adaptation, Mouritsen (2004, 39) describes it as "a free interpretation of a common theme".
242 Cf. Terrenato 2008, 255.
243 Mouritsen 2004, 64; *contra* Coarelli 2005a, 24.
244 Coarelli 1998a, 59.
245 Ibid. 66.

least of which were familial ties.[246] For a colonist to be politically loyal both to his own town and its mother city was not a contradiction since the constitutional changes of 338 had institutionalised the concept of dual citizenship and thus dual loyalty.[247] The citizens of Roman colonies and enfranchised *municipia* were equally citizens of Rome.

Cicero provides an insight into what dual citizenship meant for him:

> ut ille Cato, quom esset Tusculi natus, in populi Romani ciuitatem susceptus est, ita, quom ortu Tusculanus esset, civitate Romanus, habuit alteram loci patriam, alteram iuris; ut vestri Attici, priusquam Theseus eos demigrare ex agris et in astu quod appellatur omnes conferre se iussit, et s<ui e>rant dem<i> et Attici, sic nos et eam patriam dicimus, ubi nati, et illam qua excepti sumus. Sed necesse est caritate eam praestare <e> qua rei publicae nomen universae civitatis est, pro qua mori et cui nos totos dedere et in qua nostra omnia ponere et quasi consecrare debemus. Dulcis autem non multo secus est ea quae genuit quam illa quae excepit. Itaque ego hanc meam esse patriam prorsus numquam negabo, dum illa sit maior, haec in ea contineatur.[248]
>
> By being born in Tusculum Cato was admitted to Roman citizenship. So he was a Tusculan by birth and a Roman by citizenship. One of his countries local, the other legal. Your Attic friends, before Theseus ordered them all to leave the countryside and move into the city (or the *astu*, as it is called), belonged both to their own towns and to Attica. In the same way we think of our country both as our place of birth and as the one which admitted us to citizenship. But the one which takes its name from the state as a whole should have first place in our affections. That is the country for which we should be willing to die, to which we should devote ourselves heart and soul, and on whose altar we should dedicate and consecrate all that is ours. Yet the one which gave us birth is dear to us in a way not very different from that which took us in. And so I shall always insist that this is my country, even though the other is greater and includes this within it.[249]

Cicero's sentiments echo the importance of loyalty to the mother city, for which one was expected to pay the ultimate price. Whether citizens of Latin colonies felt the same way during the 3rd c. is another matter; they did not have Roman citizenship — or, rather, only partly. They were allowed the rights of *conubium* and *commercium*, and could vote in the city if they happened to be there.[250] As Latin status thus included some essential rights which belonged to full Roman citizenship, they partially coincided.[251] In addition, there were means by which a Latin could become a Roman citizen by settling on the *ager Romanus* and registering for the census,[252] but whether these benefits alone were sufficient to invoke the sort of unquestioning devotion portrayed by Cicero is open to question. Other factors — the material profit gained from the distribution of war booty, or dutiful personal relationships created by the webs of patronage centred on the capital — may have contributed to the maintenance of allegiance.[253] As members of the strategic system, the colonists could feel secure in the knowledge that they could call for military assistance in times of crisis. On the other hand, the same war machinery could be used against them if they chose to revoke their membership.[254] This encourages the view that allegiance was at least partly determined by ensuring that the level of security and prosperity enjoyed by the colonies was 'index-linked' in some way to that of Rome.

The constitutional changes of 338 appear to have included mechanisms for securing the loyalty of subsequent colonial foundations.[255] Prior to that date there are frequent reports of colonies

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246 Toynbee 1965, 251-52.
247 Ibid. 183 and 209-10.
248 Cic., *Leg.* 2.5.
249 Transl. N. Rudd.
250 Toynbee 1965, 257; Sherwin-White 1973, 112-13; David 1996, 39.
251 Sherwin-White 1973, 101.
252 Ibid. 34 and 110-12; Toynbee 1965, 256-57.
253 For booty distribution, see Sherwin-White 1973, 106-7; Gabba 1988; Cornell 1995a, 367. For patronage, see chapt. 5.
254 Toynbee 1965, 252.
255 Cf. Bispham 2007, 35.

founded by Rome taking up arms against her.[256] The constitutional changes were a direct consequence of what has been termed the 'Latin Revolt'.[257] From 338 until the exceptional rebellion of Fregellae in 125, however, the colonies remained faithful to their founding city. The greatest expression of this is in their supply of troops. Before the 1st c. we hear of just one incident when 12 of the colonies put up some resistance to the levy — and that only at the peak of the Hannibalic crisis.[258] The conflicts the Latins engaged in were Rome's wars: they supported her aggression against other peoples and defended her interests. During the Middle Republic, then, Latin colonists fulfilled Cicero's ideal by demonstrating their willingness to put their lives at risk for the sake of Rome. In so doing, they turned themselves into instruments of Rome's foreign policy.

A. N. Sherwin-White stressed the "thin line" between Latin and Roman citizenship despite the legal distinction.[259] From this perspective it is interesting to note the choice of words Livy put into the mouths of the consuls as they chastised the leaders of the 12 Latin colonies which resisted the levy in 209:

> non Campanos neque Tarentinos esse eos sed Romanos, inde oriundos, inde in colonias atque in agrum bello captum stirpis augendae causa missos. quae liberi parentibus deberent, ea illos Romanis debere, si ulla pietas, si memoria antiquae patriae esset.[260]
>
> You are not Capuans or Tarentines, but Romans, from Rome you sprang, from Rome you have been planted in colonies on land taken from the enemy, in order that you may augment her dominion. Whatever duties children owe to their parents, you owe to Rome, if indeed you feel a spark of affection for her or cherish any memories of your mother country.[261]

The "thin line" between Latin and Roman citizenship seems to be closely linked to why the political systems of the Latin colonies owed so much to Rome. Because of the "duties children owe to their parents", however, it restricted the degree of replication of the Roman political model.

This can be placed in perspective by considering a point at which colonial Latin and Roman political systems diverged. Rome was fully autonomous and enjoyed political dominance over its foundations; the competition amongst its ruling classes fuelled, amongst other things, the conquest of new territory. The individual colonies, however, could hope neither to achieve the kind of political supremacy enjoyed by Rome[262] nor autonomously to conquer new land to augment their own territory.[263] The colonies' constitutions recognised their permanent subordination to another state (in particular ways). The source of this aspect of the colonial political model was clearly not Rome's *res publica*. This also highlights the redundancy of perceiving the relationship as being one of model and replica. This distinction between colony and mother city should be factored in to future research. For example, the title of 'consul' for the chief magistrates of a Latin colony is attested only at Ariminum and Beneventum, and by the early 2nd c. it was dropped at the former in favour of *duoviri*.[264] Could the reason why this title was avoided be that the colonial chief magistrates simply did not possess the corresponding power and privileges of consuls?

Finally, we need to discuss *how* derivations of the Roman model made their way into colonial contexts. For instance, to what extent did the construction of comitia in the Latin colonies result from pressure from Rome rather from their own initiatives? If the comitium at Cosa does date to the 2nd c., it would imply that the local situation could influence the decision in some way.

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256 Bradley 2006, 167. That they were founded by Rome: Cornell 1995a, 302-4.
257 Cornell 1995a, 347-52.
258 Livy 27.9.2-14; 29.15.2-15.
259 Sherwin-White 1973, 97-116.
260 Livy 27.9.10-12.
261 Transl. Canon Roberts; cf. Bispham 2006, 82-83
262 Cf. Coarelli 1998a, 34-37, who proposes that Fregellae had a hegemonic relationship over its neighbours.
263 Lackner 2008, 218, with n.25 for further references.
264 Bispham 2006, 88-91; 2007, 129. The title of 'praetor' was also used: David 1996, 101; Salmon 1969, 86; Lackner 2008, 218-19.

Opinions have been voiced regarding the source of Roman toponyms in the colonies. In reference to the existence of a *vicus Esquilinus* at Cales in the 3rd c., L. Sanesi's attribution of the phenomenon to "un ben preciso programma politico di Roma"[265] has been refuted by E. Bispham:

> Our colonial toponyms are *Romanizing*, not Roman, and are the product of an *autoromanizzione* [*sic*] (self-romanization), explained by the particular circumstances in which these colonies were founded, rather than a heavy-handed dirigiste approach on the part of the *triumviri*.[266]

We still need to attribute quite a lot to the *triumviri*, the three commissioners who founded a colony. Assigned for three years, they administrated the physical construction of the new town.[267] Many were high-ranking inasmuch as they counted former praetors and consuls in their number.[268] There is ample evidence for them being present at the site during the initial phases of the colony's establishment.[269] While there, it appears as though they acted according to specific policies, as well as on their own initiative. Roman planners had quickly developed their own tradition for the basic design of colonial market-places after 338, which suggests that the development of fora was foreseen to some extent. The forum of each of the four colonies comprises the same basic elements, and it would be difficult to explain why this was unless it was part of a programme. The adoption of Greek methods for the spatial organization of *ex novo* urban space was also programmatic. A timocratic system is also reflected in the design of colonies (see below). The surveyors and engineers working under the *triumviri* seem to have been carrying out their tasks according to guidelines determined by colonial policy, both for the design of the new town as well as for the *limitatio*.[270]

An inscription from the Latin colony of Aquileia (relevant to its re-foundation in 169) honouring the *triumvir* T. Annius is important in this context.[271] It records that the commissioner co-opted the colony's senate and composed (*composivit*) its laws.[272] Latin colonies are believed to have been autonomous states with obligations to the metropolis determined by treaty, suggesting that they could choose their own laws.[273] Yet this inscription, unearthed in 1995 and the first to list specific activities of a *triumvir*,[274] reveals that Annius was strongly interventionist in the establishment of Aquileia's political system.[275] This signifies that the *triumviri*, who almost certainly also oversaw the planning of the town, could be responsible for the creation of a new colony's political institutions *and* for configuring the physical environment in which they operated. How systematically this was undertaken is not altogether clear. Livy records that the colony of Antium, founded in 338, was still without laws and magistrates some 21 years after its foundation,[276] although the meaning of the passage is disputed.[277] It has also been proposed that the colonists of Brundisium had to wait a considerable period before their senate was initially constituted.[278] The possibility cannot be excluded that this part of the founding procedure did not always go smoothly, or could require a protracted period to acquire normalcy. Yet Rome seems consistently to have been responsible for the selection of those who set up the colonial political systems, and when one then considers that so many of the magistracies had Roman titles it encourages the belief that this arose from a programme. Certainly

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265 Sanesi 1978, 77; see also Coarelli 1998a, 58.

266 Bispham 2006, 92.

267 Gargola 1995, 71-87.

268 For the very few individuals known from the 4th c., see Càssola 1988a, 16. For the numerous names from the late 3rd and 2nd c.: Gargola 1995, 60. That not all were of such high rank: Patterson 2006a, 194.

269 Livy 21.25.3-4; App., *B.Civ.* 1.24; Polyb. 3.40.9-10.

270 Cf. Gargola 1995, 58-113.

271 Zaccaria 1996, cols.182-84; Galsterer 2006, 53; Bispham 2007, 37 and 152-56.

272 The full text of the inscription runs: *T. Annius T. f. tri(um)vir / is hance aedem / faciundam dedit / dedicavitque legesq(ue) / composivit deditque / senatum ter coptavit.*

273 Salmon 1969, 85-86.

274 www2.units.it/epilab/Aquileia96/InedAquileia/AqIn1.html (viewed 6.10.2010).

275 Bispham 2007, 155-56.

276 Livy 9.20.10.

277 Cf. Bradley 2006, 168; Bispham 2007, 80-82; also see the discussion and references in Oakley 1998, 565-66.

278 Galsterer 2006, 54; Bispham 2007, 152-56.

laws are found to be repeated in the few known municipal charters of the Late Republic and shortly after,[279] but we lack direct evidence from the Middle Republic for the Latin colonies.[280]

While the commissioners were evidently working within certain parameters, it is still likely that they were otherwise able to operate according to their discretion. By being on site at the initial development, the *triumviri* were better able to assess circumstances specific to the locality. They could better appreciate the attitude of neighbouring communities and the characteristics of the new territory where they had to supervise the foundation of the town and its holdings.[281] They could also witness how the colonists responded to their new surroundings, and indeed how they interacted. The *triumviri* must have been deeply involved in making local adaptations for each settlement, as is hinted at by the great contrast in their tasks at Cosa (*ex novo*) and Paestum (a re-organised colony). We can also imagine them being at least partly responsible for the differences in the numbers and titles of the magistrates.[282] The commissioners may well have been involved in the decisions to integrate pre-existing local cults.[283] After the commission had completed its work and the colony was self-sustaining,[284] however, the means by which Rome could directly stimulate civic building or instigate changes to political institutions becomes obscure;[285] the lack of uniformity (e.g., different titles for magistrates, or the different development of curia buildings and forum pits) suggests that such changes were at least partly the result of local initiative.[286] Of course, the question of who initiated the construction of civic architecture took on a new dynamic in the 2nd c. with the euergetic urge,[287] although the inscription from Aquileia recording the activity of one of its triumvirs records that he dedicated an *aedes* during the colony's refoundation.[288]

Preliminary conclusions

It is now possible to characterise early Roman urbanism with greater precision. The Romans sought foreign expertise to assist them with the challenge of building towns. Certain Greek concepts particularly associated with practical issues, such as defence and spatial organisation, were adopted. The physical aspects of colonies that demonstrate little or no Greek influence seem to correspond to those about which the Romans had their own distinct ideas. As well as to control territory, the choices of site for the Latin colonies were linked with Rome's strategic concerns of the moment; the towns also served to protect communications routes. Military matters played a different kind of rôle in Roman foundations from the individual circumstances behind Greek ones. Roman planners tended to place fora at relatively high points within hilltop towns, which generally contrasts with Greek practice. The pomerial road, the *agger*, and the *carcer* are features of Latin colonies which have not been identified in Greek foundations.

The most important forum building with Greek ancestry was the comitium, but it differed to such a degree from the circular assembly-places of Magna Graecia and Sicily that it could not have functioned in the same way. The proportions of Latin fora made them longer than contemporary

279 Galsterer ibid.
280 See n.70 above.
281 Cf. Gargola 1995, 71-72.
282 For how they could vary: Salmon 1969, 86. That Latin colonies could determine their own political systems: ibid. 85-86.
283 Later evidence demonstrates that local magistrates were involved in the establishment of local religious festivals once they had taken office for the first time: Bispham 2007, 215, n.48.
284 Bispham (ibid. 156) suggests that the involvement of the commissioners could extend considerably beyond the normal three-year tenure.
285 Bispham (ibid. 158-59) argues that from the 2nd c. the Latins could choose to adopt particular Roman statutes.
286 Cf. Salmon 1969, 85.
287 See, e.g., David 1996, 99-119.
288 Zaccaria 1996, cols. 182-84. For its location, see Tiussi 2006, 368-70. For the construction by censors and Roman patrons of public architecture in Roman colonies in the 2nd c., see Patterson 2006b, 145-46.

agoras. The reason may be that they were modelled on the Saepta, but this would mean that colonial market-places were designed to be more multifunctional than was the Republican Forum. The colonial fora were planned with *insulae* along their flanks, intended for public architecture. This shows that Roman planners had a distinct idea of how the forum of each town was going to develop – an idea which did not include the quintessentially Greek stoa. One of the reasons for the rejection of the stoa concept may be related to the contrasting ways in which the market-place was perceived by Greeks and Romans in political and religious terms (see further chapt. 5).

We can attribute the appearance of the post-338 Latin colonies to several dynamic processes which reveal a pragmatic *modus operandi* on the part of colonial policy. The archaeology of Latin colonial fora, along with the written sources, indicates that, while Rome provided the model for the colonies' political systems, they were adapted for the rôles the colonies were supposed to play, rather than being blindly replicated. The physical form of each Latin colony was the product of foreign and Roman concepts which came to be integrated and then applied programmatically, but which were also filtered by the individual circumstances specific to each new foundation. While the longstanding loyalty demonstrated by the colonies reveals the pivotal rôle Rome continued to play, the individuality of the subsequent urban development of each seems also to have been influenced by local initiative. Given the complex interplay of these various processes, the model/replica analogy seems inadequate as an aid to their comprehension.[289]

The above is not aimed at undermining the validity of Aulus Gellius's text. His statement should be understood within its context,[290] which was a contrast in the way colonies and *municipia* were linked to Rome on a political and legal level. It was on an institutional level that the colonies bore greatest resemblance to their mother city, without being direct copies. Given how Gellius' text is translated these days, he appears not to be implying they were exact replicas when he states that, in relation to Rome, the "colonies seem to be, in a manner of speaking, small representations and images of a sort".[291]

Next we turn the spotlight away from the public areas to the structures that occupied most of the urban area: houses.

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289 This conclusion was also drawn by Mouritsen (2004, 64), but he envisaged different processes.

290 As advocated by Bispham (2000 and 2006).

291 Aul. Gell., *NA* 16.13.9 (transl. E. Bispham). Cf. the much older translation by Salmon (1969, 18): "the *coloniae* have the appearance of miniatures, and are reproductions of Rome itself".

CHAPTER 4

The Roman adaptation of Greek house design and the introduction of the atrium house

Introduction

We return to examining similarities between Greek and Roman urban centres. This chapter is primarily devoted to introducing some relationships between the domestic architecture of the two cultures. I centre on the uses of a predetermined design in house construction, proposing that the Romans adapted a Greek design for houses belonging to the lower property classes, and that this probably occurred in conjunction with the crystallisation of the atrium house design. The Romans developed a system for constructing urban housing *en masse* that was adapted from the Greeks, and I will explore why and when this occurred. The traditional view, to be challenged here, is that the first Roman adaptation of Greek domestic architecture came with the peristyle in the 2nd c. This will require a re-interpretation of the uses of a predetermined house design in the mass construction of the housing of a new town. It is necessary first to identify and explain the development of this phenomenon in its original Greek contexts. The second half of the chapter examines the impact for our understanding of Roman domestic architecture during our period. Several other themes will be brought into the discussion, chiefly the economic, social and organisational problems faced by those involved in the foundation of a new town. Excluded from the discussion are interpretations which inform about domestic life. Instead, I focus upon what the house can reveal about the structure and development of the city.[1]

The greatest percentage of the surface area of most Greek and Roman towns was occupied by housing.[2] Research into the ancient city has focussed disproportionately on the public areas,[3] but the corpus of studies on Greek and Roman housing has recently grown, much of it being relevant to our period.

Urban Greek housing

L. Nevett has usefully characterised research into Greek housing. It may be summarized as of the following types:[4]

- Reports from individual sites, which generally tend to look at architectural features and place them within pre-existing typologies, with some additional interpretation based on literary sources and finds.[5]
- Studies focussing on urban society which use the physical organisation of the domestic environment as a basis; these are then compared against the literary sources to create societal models.[6]
- Studies on 'the Greek house', which evaluate the development of house architecture with a heavy reliance on literary sources to provide interpretation.[7]
- Broader studies which attempt to place the house within a context of the organisation of space within towns and their construction, again with a reliance on literary sources to provide an explanation for architectural development.[8]

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1 This is also a theme of chapt. 5.
2 The 3rd-c. housing lacuna in the Latin colonies will be discussed in chapt. 6.
3 Ault and Nevett 1999, 43; Nevett 2005, 1.
4 Nevett 1999, 23-29.
5 E.g., Wiegand and Schrader 1904; Robinson 1929, 53-76; 1930; 1946; Robinson and Graham 1938; Reinders 1983, 217-18.
6 E.g., Walker 1983.
7 E.g., Pesando 1987 and 1989.
8 Hoepfner and Schwandner 1994.

Some studies by British and American scholars have recently questioned the reliance on literary sources to elucidate archaeological remains, especially the use of such sources in the interpretation of the function of domestic space.[9] They have highlighted contradictions, irregularities and gaps within the extant sources. Access to ever greater quantities of archaeological data has highlighted these weaknesses because of the increase in the variety seen within the overall body of data. The same works have initiated a trend of using archaeological methods to elucidate the character of ancient society.[10]

The *Typenhaus* phenomenon

For mass house construction in new towns, the most thorough treatment is that by W. Hoepfner and E. L. Schwandner,[11] which has been called a "milestone" in the study of Greek housing.[12] Where it stands out is in its evaluation of housing from multiple sites and the contextualisation of house architecture within the development of the Greek city over time. It also treats the general organisation of urban space. Its main proposal is that during the 5th and 4th c. many new cities were founded with houses constructed to appear (more or less) identical.[13] These dwellings have received the term '*Typenhäuser*' from the authors, who propose that the grounds for the development were related to Athenian *isonomia* and democracy. They view the *Typenhaus* ultimately as a physical expression of political ideals in contemporary Athens; they also believe that Hippodamos was involved in its development. They mention the practical benefits that came with uniform housing, such as long continuous walls to protect against earthquakes, and how the regular surface areas of the roofs would have made drainage easier.[14]

The theories of Hoepfner and Schwandner have also been criticised.[15] It has been argued, for example, that under Athenian democracy political equality was not necessarily linked with equality in property. The notion that democracy could have had an influence on house design and construction has been rejected.[16] Further archaeological investigation of some of the supposedly identical houses has shown that they were not so, not even in their first phases.[17] Hoepfner and Schwandner were able to argue that these houses were identical because of the similarity seen amongst them, and proposed that such houses were constructed according to a design.[18] The implications of this suggestion have not been adequately discussed. It is of importance for the historical development of town planning, for if the design of structures was established before work on a new settlement commenced, it would indicate that cities were being planned in three dimensions. We will examine the architecture of the houses they believe were *Typenhäuser* and their evidence for the use of house designs.

The *prostas* house

The earliest settlement where the *Typenhaus* is identified is Piraeus in the 5th c.[19] The particular design of the house at Piraeus has received the term '*prostas* house' (see below). Its form was reconstructed from the accumulated evidence of rescue excavations undertaken from the late 19th c.

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9 Jameson 1990, 92-93; Nevett 1999, 10-20; Cahill 2002, 148-53.
10 E.g., Allison 1999; Nevett 1999; Cahill 2002.
11 Hoepfner and Schwandner 1994.
12 Nevett 1999, 27.
13 Hoepfner and Schwandner 1994, 312-21; Hoepfner 1999, 201-6.
14 Hoepfner and Schwandner 1994, 313.
15 Hennig 1989, 25-30; Lengauer 1989; Botermann 1994; Cahill 2002, 198.
16 Bleicken 1995, 639-40; cf. Schuller 1989.
17 Cahill 2002, 221-22; Raeck 2003, 322-25 and 349-75; 2005, 152-54.
18 Hoepfner and Schwandner 1994, 89.
19 Ibid. 22-50.



Fig. 29. Piraeus: partial plans established from excavations and the reconstructed original house design (top right) (from Hoepfner and L. Schwandner 1994, 30 fig. [illegible] © DAI Berlin; W. Jo[illegible]ner, W. Hoepfner, [illegible] L. Schwandner).

known to 1991.[20] The method of reconstruction receives a degree of transparency from the inclusion of plans from excavations (fig. 29). Because of the fragmentary data it has been doubted whether a particular house type can be recognised,[21] but a repetition in layout can be discerned from the sum of the excavated evidence.[22] The average dimensions of the Piraeus houses are *c.*11.87 x 20.31 m.[23] The layout comprises two rooms and a corridor on the S side, a courtyard in between, and a range of rooms at the back of the property (fig. 30). The rear living spaces, as in all *prostas* houses, are divided by a longitudinal wall which created two ranges of rooms. On one side was the *prostas*, a columned porch, and behind it the *oikos*, the main living room; on the other side was the *andron*. Although there are often difficulties in assigning functions to particular rooms, the *andron* is a space archaeologists believe is relatively easy to identify. This is because the room is nearly always the most highly decorated, with painted walls and mosaics. There is often a raised ledge around the walls for the placement of dining couches, and the room is frequently square, with doorway offset to accommodate the couches within.[24] The *andron* at Piraeus is proposed as one of the earliest cases in Greece of the widespread presence of such spaces in the houses of the non-élite,[25] but it would perhaps be best not to assume that every house had a formal *andron*, as Hoepfner and Schwandner seem to suggest. Like all the *prostas* types presented in their book, the Piraeus example has been given a second storey, although no archaeological evidence from the site is provided to support this allegation.

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20 For references, see Hoepfner and Schwandner 1994, 22, figs. 16-27.
21 Eickstadt 1991, 97-112.
22 Reber 1998, 158-59.
23 Hoepfner and Schwandner 1994, 38.
24 Börker 1983; Hoepfner and Schwandner 1994, 327-28; Nevett 1999, 26; Cahill 2002, 181-91.
25 Hoepfner and Schwandner 1994, 42.

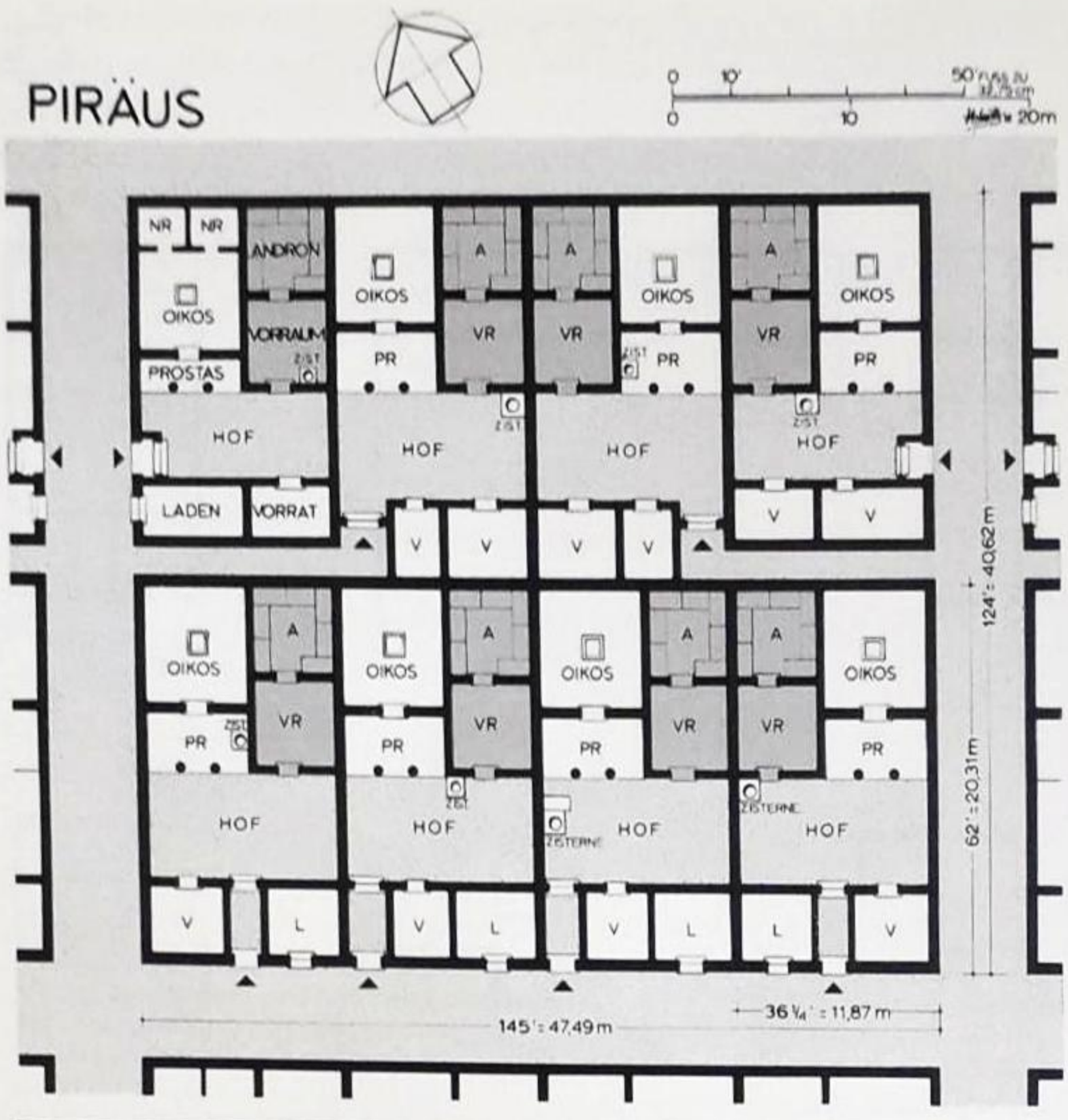


Fig. 30. Piraeus: reconstructed *insula* subdivision with *prostas* houses (from Hoepfner and Schwandner 1994, 39 fig. 31. © DAI Berlin; I. Arvanitis).

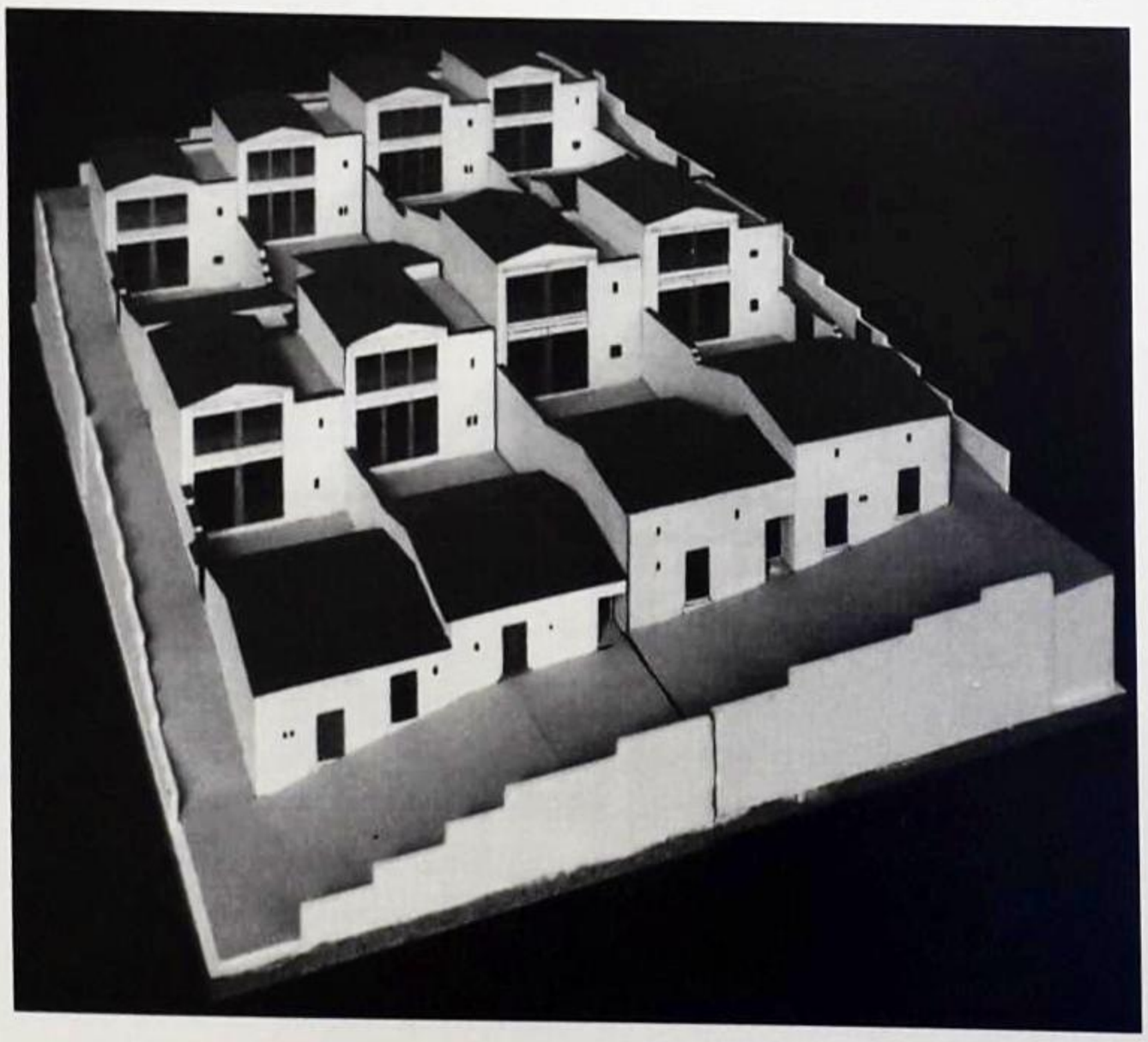


Fig. 31. Priene: model with reconstruction of the *prostas* houses (from Hoepfner and Schwandner 1994, 213 fig. 206. © DAI Berlin; P. Grunwald).

A similar *prostas*-type house is identified at Priene (figs. 31-32),[26] although it is proportionately narrower than the other *prostas* examples. The houses underwent considerable modifications over time and the original layout mostly survives only in fragmentary form. The original *Typenhaus* plan has been reconstructed from the sum of the architectural evidence. At Priene in at least some of the houses there is definite evidence for a second storey, such as high extant walls with sockets

26 Ibid. 188-225.

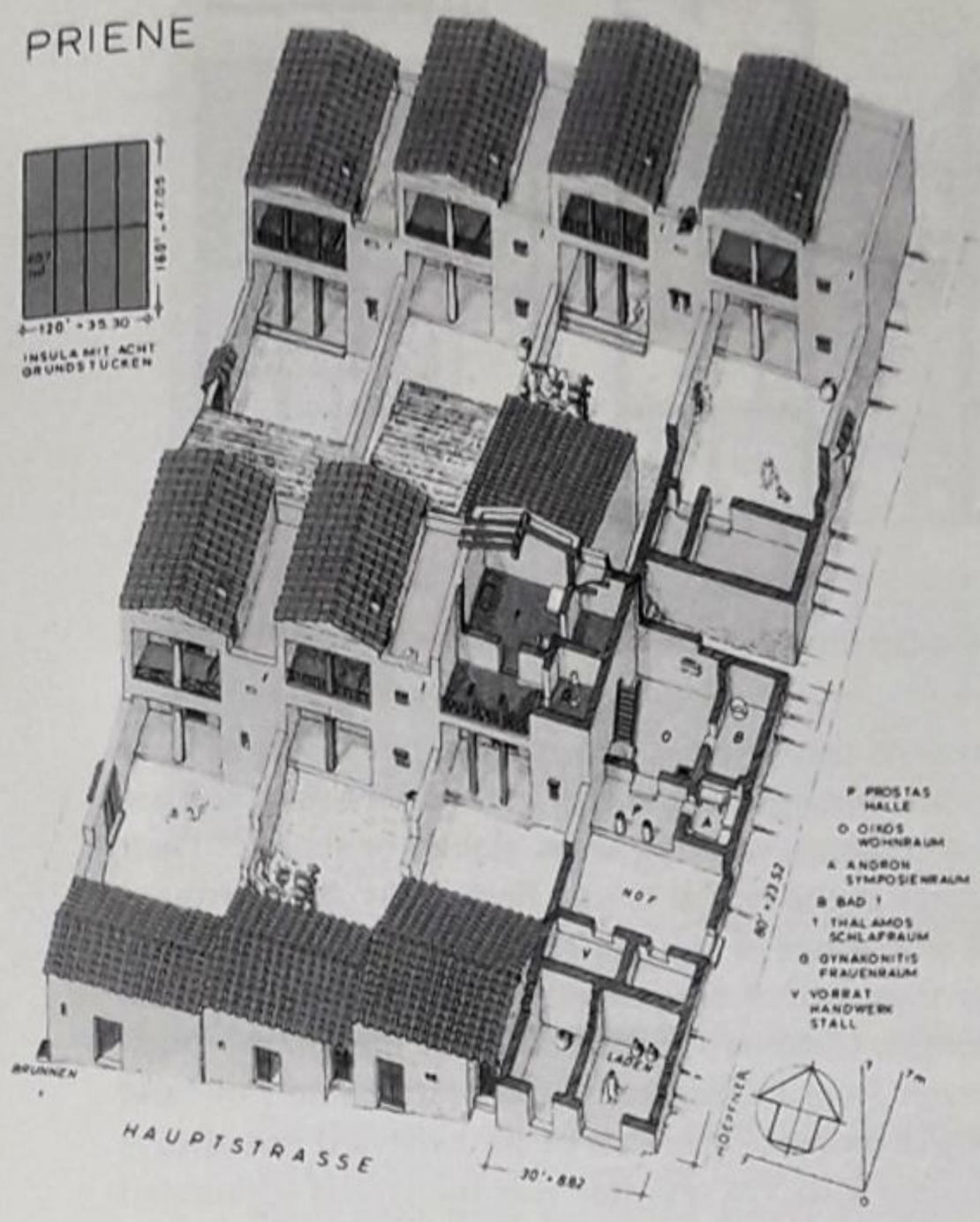


Fig. 32. Priene: reconstruction drawing of *prostas* houses (from Hoepfner and Schwandner 1994, 211 fig. 204. © DAI Berlin; W. Hoepfner, E.-L. Schwandner).



Fig. 33. Abdera: reconstruction plan drawing of a residential *insula* (from Hoepfner and Schwandner 1994, 186 fig. 176. © DAI Berlin; A. Tsingas).

for beams as well as stairs.[27] Many had a double range of rooms at the front. Another site with the *prostas* house is Abdera (Thrace) (fig. 33) where the ground-plan of a *prostas* arrangement has been reconstructed by Hoepfner and Schwandner.[28] Even though only a few houses were excavated, they appear to display a greater uniformity than those found at Priene or Piraeus. At Chyton, Klazomenai, it has been proposed that a near-identical *prostas* house design was employed from the early 4th c. for the mass construction of domestic architecture.[29] There seem to be two problems with this interpretation. The differences between the state of the excavated remains and the hypothetical plans of the houses' first phase are considerable, which casts doubt on the validity of the reconstruction. Suspicion is then strengthened by the fact that the surface areas of the Chyton house-plots are *c.*30% greater than the relatively uniform-sized plots for *prostas* houses in other towns.

The relative homogeneity of the plot sizes for the *prostas* house and of their internal layouts are striking (fig. 34). If one excludes the Priene example, which has an extra range of rooms, and the problematic reconstruction at Klazomenai, the short sides of the plots at Piraeus, Kolophon and Abdera are between 10.15 and 11.87 m, with the long sides being between 20.31 and 20.97 m, making their surface areas and proportions very similar. The ground-plot of the Abdera examples has proportions of exactly 1 : 2. The basic layout of the houses consists of a pair of rooms on the S side,

27 Ibid. 208.
28 Ibid. 180-87.
29 Özbay 2004.

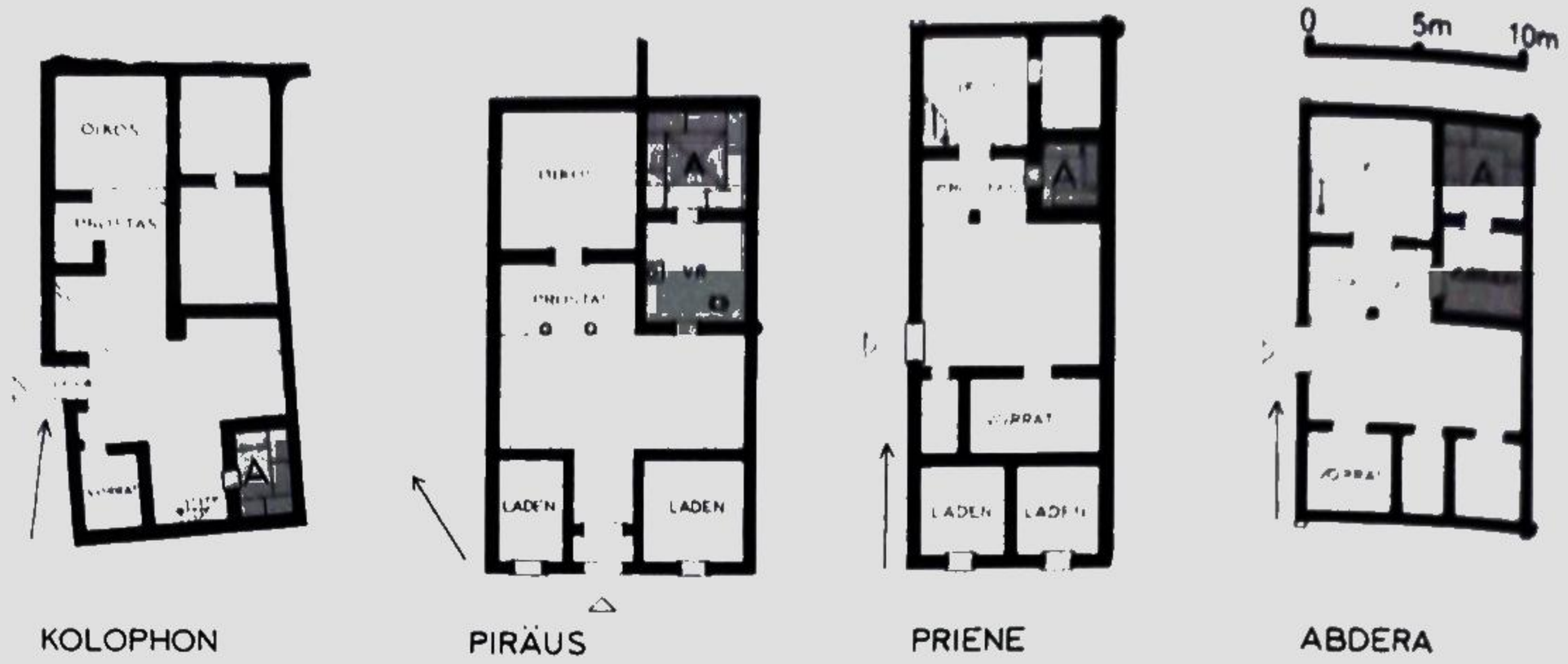


Fig. 34. *Prostas* houses presented by Hoepfner and Schwandner (from Hoepfner and Schwandner 1994, 321 fig. 306, © DAI Berlin; A. Tsingas).

often adjoining the street, with a corridor between them. These two rooms appear not to have had specific functions. They could vary in size and arrangement within individual towns and are interpreted by Hoepfner and Schwandner as storerooms, working areas, stables or shops.[30] Their presence is one of the most characteristic features of the *prostas* house. Behind lay the courtyard which provided a working/living area as well as a source of light for all the rooms. Generally the courtyard is set transversally and towards the front half of the property, except at Priene where it is set midway between the front and rear ranges. Cisterns are attested below the central courtyard, with an opening through which rain-water from the roofs and courtyard could flow and from which water could be extracted. The group of rooms to the north of the courtyard was always divided into two sections by a single longitudinal wall. On one side was the *prostas* (columned porch), with the *oikos* behind it as the largest room and the place of the hearth. There is clear, if not uniform, evidence for hearths in this room at Priene, Colophon and Piraeus.[31] This layout meant that access to the rooms at the back of the house was restricted. Thus they display a hierarchical relationship. All of the examples mentioned face a southerly direction, which meant that the *prostas* was shaded in the summer when the sun was high, while the low winter sun could penetrate the rooms at the back of the house, bringing light and heat.[32] Although very few Greek cities have yet revealed their house types, the success of the *prostas* type is clear from its distribution: Piraeus, Abdera, Colophon, Priene, and perhaps also Eretria.[33] The dwellings from the latter three are all dated to the 4th c., which appears to be when the *prostas* house enjoyed its greatest success.[34]

The *pastas* house

The term '*pastas* house' is used to describe and define the extensively excavated houses at Olynthus (fig. 35),[35] with the '*pastas*' being the columned hall directly north of the courtyard. The houses at Olynthus date after a large urban extension in *c.*432;[36] it was destroyed by Philip II in 348.[37] The similarity amongst the dwellings there provides Hoepfner and Schwandner with some

30 Hoepfner and Schwandner 1994, 39-40 and 323.
31 Ibid. 40 n.80, 216.
32 Ibid. 318-20.
33 Reber 1998, 158-62.
34 Greco and Torelli 1983, 296.
35 Robinson and Graham 1938, 147-51.
36 Cahill 2002, 24.
37 Dem., *Or.* 9.26.

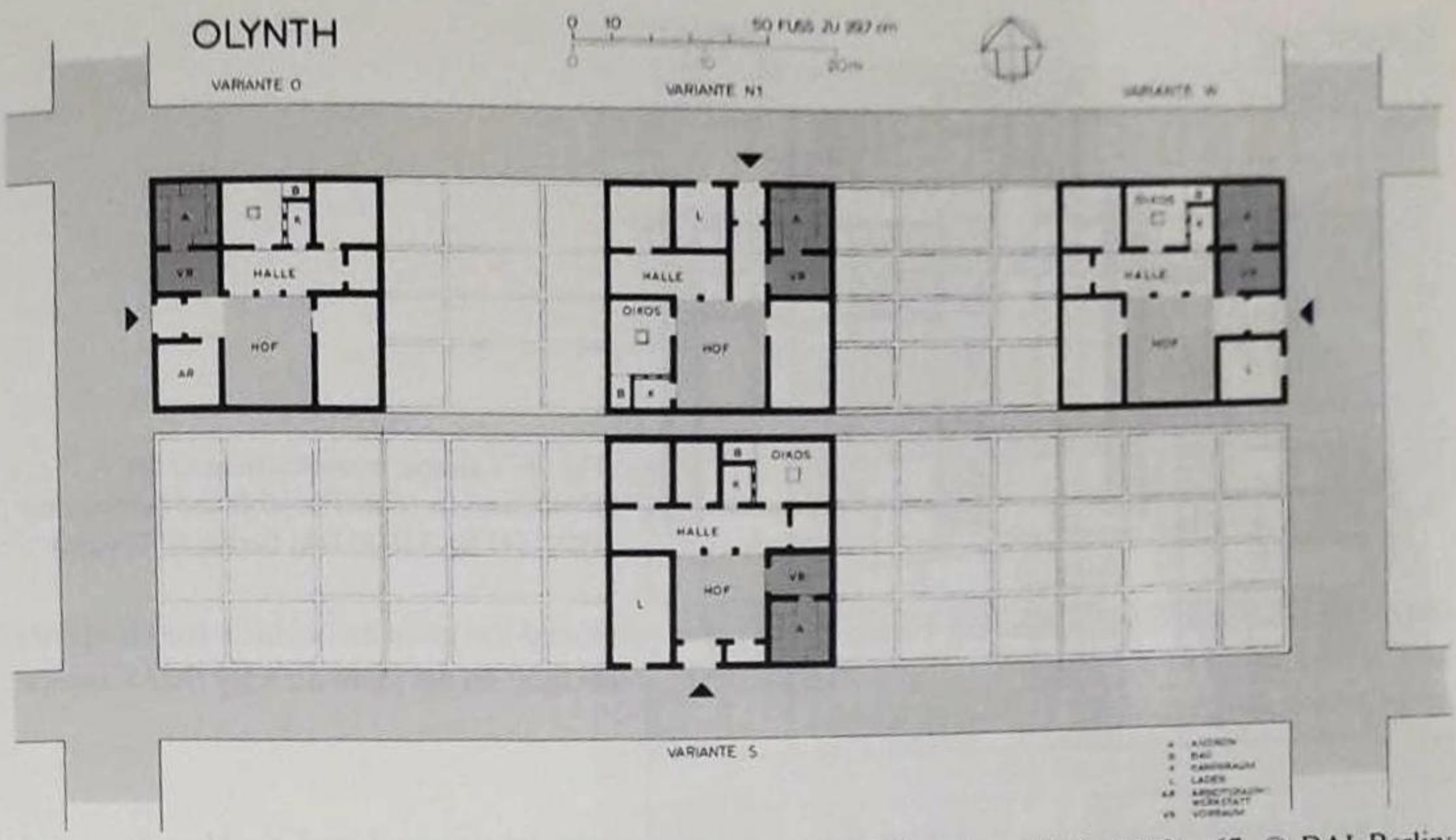


Fig. 35. Olynthus: reconstructed *pastas* houses (from Hoepfner and Schwandner 1994, 90 fig. 67. © DAI Berlin; A. Tsingas, W. Hoepfner, E.-L. Schwandner).

of their strongest evidence. N. Cahill's book[38] discusses the Olynthian house at some length, his description of which cannot be bettered:

> The standard house plot at Olynthus is roughly square, averaging about 17.2 m across. Two main axes cross the house from east to west. One axis near the midpoint of the house divides it into two nearly equal parts, the second divides the northern half into two portions. These axes govern the placement of most east-west walls and pillars, which had to be aligned to support the common roof which ran over the northern half of the entire row of houses. A number of principles govern the disposition of rooms. As so commonly in the ancient Mediterranean, most houses at Olynthus are centered about an open courtyard. The court was nearly always located in the southern half of the house, with the pastas and main suites of rooms to its north.[39]

At Agrigento fragmentary remains are known of a possible 4th-c. *pastas*,[40] while rural examples include the Dema house in Attica, believed to have been constructed a few decades before the founding of Olynthus.[41] Possibly the most analogous design to Olynthus is the house near Vari (Attica) dating from the second half of the 4th c., just after Olynthus had been destroyed.[42]

The *Herdraumhaus*

Another form identified by Hoepfner and Schwandner is the *Herdraumhaus* ('hearth-room-house'), which they identify at Kassope (fig. 36) and Orraon.[43] In this type the courtyard seems to be subordinate to the *oikos* in size. The form is found exclusively in NW Greece. The same authors associate its design with the social and economic traditions of that area, as well as the harsher climatic conditions compared to S Greece and Asia Minor. They think that these factors led to subordination of the courtyard for the creation of a larger main living room. Although these houses

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38 Cahill 2002.
39 Ibid. 75; cf. Krause 1977.
40 De Miro 1980, 714, pl. VI; Nevett 1999, 135.
41 Jones, Sackett and Graham 1962; Nevett 1999, 83.
42 Jones, Sackett and Graham 1973; Nevett 1999, 95-96.
43 Hoepfner and Schwandner 1994, 146-58 and 323; Hoepfner 1999, 374-83 and 395-411.

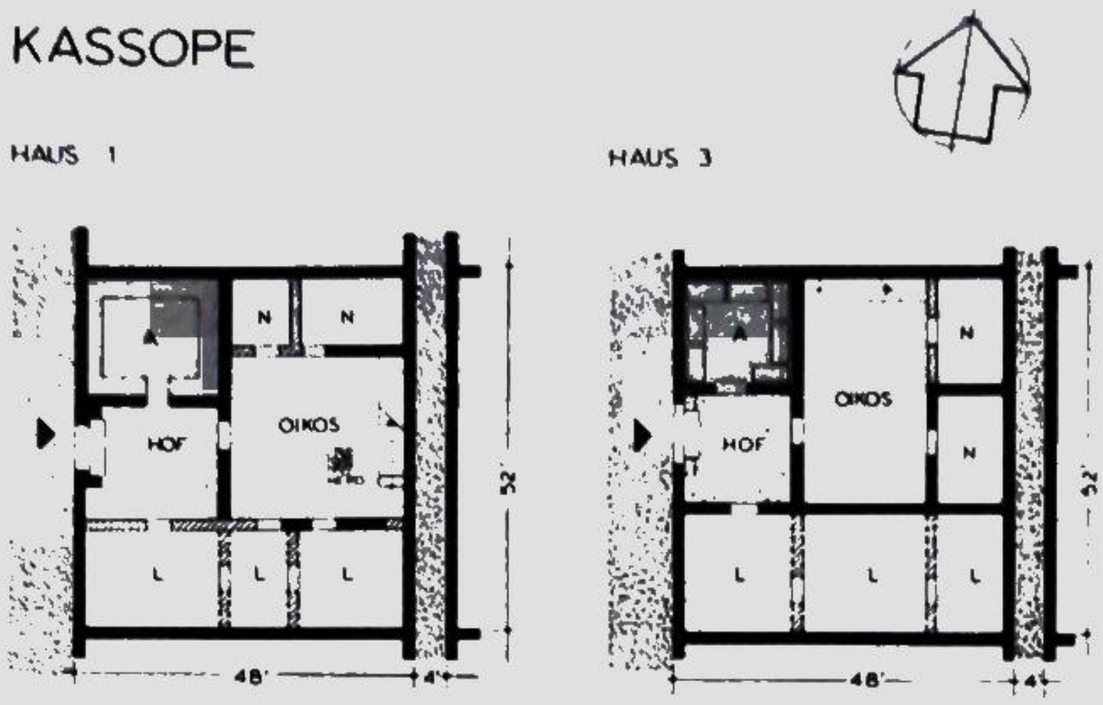


Fig. 36. Kassope: reconstructions of the *Herdraumhaus* (from Hoepfner and Schwandner 1994, 147 fig. 136. © DAI Berlin; A. Tsingas).

share considerable similarities, the variations in plans produced too great an obstacle for Hoepfner and Schwandner to reconstruct a single original design, and they do not state directly that Kassope and Orraon employed the *Typenhaus* model.

* * *

Before proceeding, let us consider the usefulness of the labels employed by Hoepfner and Schwandner for their *Typenhäuser*. The term '*pastas* house' is modern in origin and was created to describe and define the extensively excavated houses at Olynthus.[44] The term '*prostas* house' was coined by the German excavators of Priene.[45] They saw the *prostas* house as a further development of the 'Megaron house' dating back to the Mycenean Bronze Age. This interpretation has persisted without significant challenge,[46] even though archaeological evidence to support this evolutionary model is largely absent. The term '*prostas*' literally means 'standing in front', but has been taken to mean "a columned porch or ante-room".[47] The terms '*prostas*' and '*pastas*' are found in Vitruvius,[48] but their modern application is incorrect since he made no differentiation between '*prostas*' and '*pastas*'.[49] He also stated that rooms opened off both sides of the *prostas*, but none of the houses mentioned in this chapter that have been labelled '*prostas* house' has this characteristic.

Labels convey implicit typological classification and should be applied with caution. They can be useful but only within an explicit research framework. A good example is the term 'single-entrance courtyard house' devised by L. Nevett to explain a phenomenon of domestic Greek architecture during the Classical and Hellenistic periods.[50] This label is relevant to her research context, the developing relationship between the household and the outside world. Despite their unique characteristics, the three house-types presented up to this point are all single-entrance courtyard houses, which illustrates how labels can mask variations within a data-set. The main objective here is to comprehend why houses of similar design were built *en masse* (the reasons for variations among them will also be discussed). My aims thus coincide with those of Hoepfner and Schwandner and I will continue to use their terminology, despite its artificiality, because it serves in this specific context and highlights the interrelations between my research and theirs.

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44 Robinson and Graham 1938, 147-51.
45 Wiegand and Schrader 1904, 285-300; cf. Hoepfner and Schwandner 1994, 323.
46 Cf. Graham 1966, 6; Drerup 1967, 6-10; Hoepfner and Schwandner 1994, 6.
47 Graham 1966, 5.
48 Vitr. 6.7.1-2.
49 Tsakirgis 1989, 279; Ault and Nevett 2005b, 161.
50 Nevett 1999, esp. 158-66.

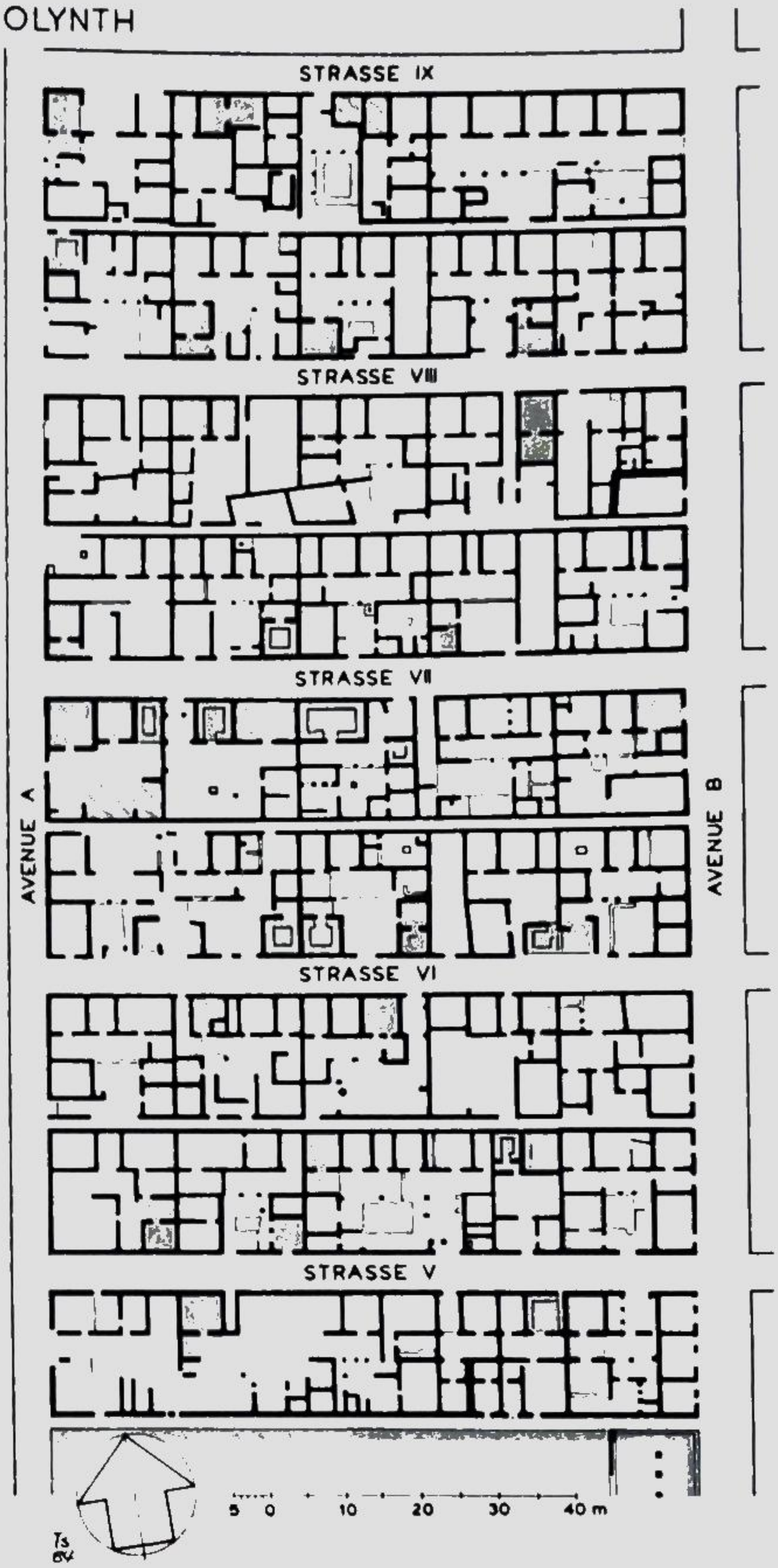


Fig. 37. Olynthus: actual state of excavated houses (from Hoepfner and Schwandner 1994, 83 fig. 60. © DAI Berlin; A. Tsingas).

Who designed and built the houses?

From the above survey of Greek houses it is apparent that distinctive types are identifiable in different cities. Perhaps at the time of each foundation a decision was made about what type of house was to be utilised. The repetition of a particular form within a city is evidence that some form of design was followed. This can best be seen at well-excavated Olynthus and Priene. There is a general acceptance that these houses were designed to some degree, but no agreement on who was responsible. Cahill distances himself from the view of Hoepfner and Schwandner that planners and architects were involved in the design of the Olynthian houses.

As can be seen from fig. 37, certain wall axes are repeated from house to house. The two main E–W walls to the north of the courtyard frequently follow the same line across the *insula*. Cahill

explains this repetition as being there for the sake of a "common roof line", which would have eased drainage problems.[51] This could not be achieved in all parts of the city due to height differences between adjoining properties created by terracing, and to the fact that not all houses in a row had the same number of storeys.[52] There is, however, some evidence that efforts were made to solve drainage problems between houses.[53]

Cahill fails to mention the other consequence of the two walls being the same distance from each other, which is that the rooms between them all have the same width. This design decision created some uniformity in the interior space of each house. He attributes the similarities in Olynthian houses to agreements made amongst households during the construction process.[54] Their architectural coherence he attributes to a "master plan" devised by groups of households working together. The similarity between Olynthian houses clearly cannot be the result of individual households coincidentally making the same decision concerning internal layouts; there was a plan, based on something that was pre-agreed, but Cahill remains vague as to how this came about:

> Second, the design and construction of the houses can be attributed, I believe, to the owner-builders of the houses rather than to city edict or the design of contractors. While a number of factors, such as the basic plot of land allotted the owner and requirements of the common roof and of drainage, constrained the way houses were planned, the varying solutions in different blocks suggest that issues of common concern were worked out by more or less informal arrangement among householders. Within that general framework, an owner was free to build in whatever way suited his needs and wants. Similarities among houses reflect similar social and economic concerns among the households which built the houses.[55]

Cahill seems to conclude that the decision to adopt the *pastas* house at Olynthus, and the similarity of the wall axes across properties, can be explained by a "more or less informal arrangement" among householders. He introduces no *pastas* houses from other cities, although no city with that type has been excavated to the same extent as Olynthus. This may be fortunate for his argument: from the evidence provided by cities that utilized the *prostas* type, it would be difficult to see the form of these houses as purely the creation of their inhabitants. In these cities the proportions and absolute dimensions of the ground-plots, their orientation, and the way in which the houses were internally divided are all very similar. This is not just the case in individual cities but in multiple cities across great distances in the E Mediterranean. If we take Cahill's owner-builder design model and apply it to cities with the *prostas* house, it would lead to the conclusion that the *prostas* house was re-invented in each new city where it appeared, but the unlikelihood of this is obvious. Equally unlikely is that a "master plan" for the construction of a city had been arranged on an informal, non-city-wide basis by "groups of households cooperating with one another". His rejection of a house type at Olynthus also puts him at odds with earlier excavators who believed in an original type upon which the others were based.[56] He wishes to bring out the variety seen in houses at Olynthus and succeeds in doing so. The single, repeatable design model of Hoepfner and Schwandner is anathema to him:

> The houses at Olynthus are not, and never were identical type houses. To approach them in a purely normative manner, describing *the* Olynthian house as if one could encapsulate an entire society's habits in a single dwelling, misses not only much of the interesting variety among dwellings, but important patterns which reveal much about the city's structure.[57]

However, Cahill is in agreement with Hoepfner and Schwandter as to who built the houses. The visible differences in construction techniques from house to house lead them to conclude that each

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51 Cahill 2002, 75, 81, 199, 202-4 and 216.
52 Ibid. 82.
53 Ibid. 204, n.18.
54 Ibid. 204.
55 Ibid. 216.
56 Robinson and Graham 1938, 118-21.
57 Cahill 2002, 221-22.

was built by a different set of workmen.[58] These visible differences permit the stratigraphic relationships of adjoining dwellings to be established, showing that the houses on a single block were probably built in a distinct order. This stems from the fact that all the houses had party walls. If one owned a house in the middle of a block, potentially up to 5 others would rely on its structural support, so for the construction of each house some agreement with neighbours was required.

This system has been identified at a number of Greek cities, including Priene, Kassope and Colophon.[59] Hoepfner and Schwandner as well as Cahill discuss the evidence for professional builders during this period, concluding that the discernible differences in construction techniques and building materials from house to house probably mean that house-owners were responsible for their construction.[60] Cahill adds some literary evidence in the form of a letter from Antigonus to the Teans.[61] After he ordered the synoecism of Teos and Lebidos, the king stated that those who did not build their houses on the plots given to them would have their land made public. In this case, the onus was on the Lebidians themselves to build their houses. Likewise, an inscription from Smyrna of the mid-3rd c., dealing with the absorption of the population of Magnesia-by-Sipylos into Smyrna, refers to the fact that the Magnesians themselves were building new homes at Smyrna.[62]

There is agreement, then, on who constructed the houses, but opposing views on how the design came about. Hoepfner and Schwandner take the similarities seen amongst houses at Olynthus to conclude that there was a single original design. From the same evidence Cahill uses the visible dissimilarities amongst the dwellings to argue that they were not identical. All believe that the houses were designed, but they disagree as to who was responsible. The *Typenhaus* has rooms designed with specific functions, but Cahill shows that at Olynthus great differences existed in how houses were used, and there is little evidence to indicate that particular functions were attached to architecturally distinct rooms over time. It appears as though households were not only free to use their domestic space as they wished, but that they chose to exercise that freedom. Such flexibility does not necessarily mean, however, that houses were not designed initially to have rooms with specific functions. There is a model that can explain these contradictory conclusions, but first it is necessary to evaluate the circumstances under which cities were founded.

A new model for the development of mass constructed, pre-designed housing

In some ways the planning of a house could be seen as an extension of the developments which brought about the ordered partition of the city as a whole. The distribution of cultivatable land in the *chora* and the division of the city into an orthogonal grid of streets belong to an ideology dating back to the Archaic period.[63] The system of city planning used by the Greeks brought about the subdivision of the city into *insulae*, and in turn the blocks were subdivided into building-plots. From this perspective, the standardisation of the interior arrangement of houses on these lots could perhaps be considered the next logical step in the process. But what were the reasons for such an evolution? In his *Politics* Aristotle provides the most extensive description of the practical sides of the construction of a new city,[64] although in comparison to his treatment of more theoretical issues it takes up a tiny proportion of the work. Briefly, he describes the physical organisation of some public spaces and buildings within the city, ending with the following:

> ἀλλὰ τὸ διατρίβειν νῦν ἀκριβολογουμένους καὶ λέγοντας περὶ τῶν τοιούτων ἀργόν ἐστιν· οὐ γὰρ χαλεπόν ἐστι τὰ τοιαῦτα νοῆσαι, ἀλλὰ ποιῆσαι μᾶλλον· τὸ μὲν γὰρ λέγειν εὐχῆς ἔργον ἐστι, τὸ δὲ συμβῆναι τύχης. διὸ περὶ μὲν τῶν τοιούτων τό γε ἐπὶ πλεῖον ἀφείσθω τὰ νῦν.

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58 Hoepfner and Schwandner 1994, 314; Cahill 2002, 202.
59 Cf. Cahill 2002, 202, n.10.
60 Hoepfner and Schwandner 1994, 314-16; Cahill 2002, 202-4.
61 Welles 1934, nos. 3-4; Cahill 2002, 203; Bagnall and Derow 2004, no. 7 = *Syll.*^{3} 344.
62 Schmitt 1969, no. 492; Bagnall and Derow 2004, no. 29 = *OGIS* 229.
63 Mertens and Greco 1996, 243-62.
64 Arist., *Pol.* 1330a34-1331b23.

> But to linger at this point over the detailed statement and discussion of questions of this kind is a waste of time. The difficulty with such things is not so much in the matter of theory but in that of practice; to lay down principles is a work of aspiration, but their realisation is the task of fortune. Hence we will relinquish for the present the further consideration of matters of this sort.[65]

After bringing the subject to a quick close, he follows with a discussion of how the constitution affects the well-being of the citizen. Most of the debates about the Greek city by Plato and Aristotle are theoretical: they rarely broach the practical aspects of city construction. The theorists appear to be dismissive of the process of a city's physical realisation. This comes across as a kind of high-mindedness: the physical city was valuable only in relation to its benefit to the citizen body. Archaeology, on the other hand, provides physical remains resulting from the *practice* of city construction. This is not to say that political theory did not affect it, but other factors were involved.[66] Literary sources will provide little understanding of the practical challenges that the construction of a city presented. Until recently, most studies on Greek housing have looked to ancient authors as a basis for interpreting the remains of houses. In so doing, they have a tendency to adopt the same high-mindedness towards the practical aspects. Hoepfner's and Schwandner's insistence on finding in Greek political ideology an explanation for the introduction of the *Typenhaus* may be symptomatic of an unwitting adoption of the same bias found within the sources.[67]

Economy and organisation: the management of resources

It is difficult to imagine a more challenging, costly or stressful project than the foundation and construction of a new city. The elements of the foundation process which tend to receive most attention today are the planning of streets and the construction techniques and decoration of buildings. However, additional factors about which archaeology and ancient authors provide little information had great influence on the process of constructing a city. These are well-documented in inscriptions, as the following excerpt from Colophon (late 4th c.), where the *prostas* house has been found, demonstrates.[68] It relates to the creation of a new extension to the city and its defences. In regard to the practical aspects of city construction, it provides insight into the problems involved.

> ὅπως ὁ δῆμος φαίνηται, ἐπειδὴ παρέδωκεν αὐτῶι Ἀλέξανδρος ὁ βασιλεὺς τὴν ἐλευθερίαν καὶ Ἀντίγονος, κατὰ πάντα τρόπον φιλοτιμούμενος διαφυλάττειν τὴν τῶμ προγόνων δόξαν, ἀγαθῆι τύχηι καὶ ἐπὶ σωτηρίαι παντὸς τοῦ δήμου τοῦ Κολοφωνίων ἐψηφίσθαι τῶι δήμωι τὴμ παλαιὰμ πόλιν ἣν τῶν θεῶν παραδόντων τοῖς προγόνοις ἡμῶν κτίσαντες ἐκεῖνοι καὶ ναοὺς καὶ βωμοὺς ἱδρυσάμενοι παρὰ πᾶσι τοῖς Ἕλλησιν ἦσαν ἔνδοξοι ϙ[υ]ντειχίσαι πρὸς τὴν ὑπάρχουσαν· ἵνα δὲ συντελῆται κατὰ τάχος τὸμ μὲν ἱερέα τοῦ Ἀπόλλωνος καὶ τοὺς ἄλλους ἱερεῖς καὶ τὰς ἱερέας καὶ τὸμ πρύτανιν [με]τὰ τῆς βουλῆς καὶ τῶν ἀποδειχθέντων ἐν τῶιδε τῶι ψηφίσματι καταβάντας εἰς τὴμ παλαιὰν ἀγορὰν τῆι τετράδι ἱσταμένου τοῦ εἰσιόντος μηνὸς [ἐπὶ] τοὺς βωμοὺς τῶν θεῶν οὓς ἡμῖν οἱ πρόγονοι κατέλιπον εὐξασθαι τῶι Διὶ τῶι Σωτῆρι καὶ τῶι Ποσειδῶνι τῶι Ἀσφαλείωι καὶ τῶι Ἀπόλλωνι τῶι Κλαρίωι καὶ τῆι Μητρὶ τῆι Ἀνταίηι καὶ τῆι Ἀθηνᾶι τῆι Πολιάδι καὶ τοῖς ἄλλοις θεοῖς πᾶσι καὶ πάσαις καὶ τοῖς ἥρωσιν οἳ κατέχουσιν ἡμῶν τήν τε πόλιν καὶ τὴν χώραν ἐπιτελῶγ γενομένων τῶν ἀγαθῶν πρόσοδον ποιήσεσθαι καὶ θυσίαν καθότι ἂν τῶι δήμωι δόξηι· ἀποδεῖξαι δὲ ἄνδρας δέκα καὶ δὴ οἵτινες σκέψονται τά τε τείχη κατὰ ποῖον ἀχθέντα καὶ προσβληθέντα πρὸς τὰ ὑπάρχοντα εἰη ἐχυρώτατα καὶ ἀρχιτέκτονα σκεψάμενοι ἐξετῶσιν ὃς ἂν αὐτοῖς δοκῆι ἱκανώτατος εἶναι ἐπιμελεῖσθαι τῶν ἔργων τῶν τειχῶν καὶ περὶ μισθοῦ τῶι ἀρχιτέκτονι καὶ ὅπως χρήματα ξενικὰ πορισθῆι καὶ ὅπως αἵ τε ὁδοὶ καὶ τὰ οἰκόπεδα κατατμηθήσεταί τε καὶ πραθήσεται συμφερόντως καὶ ὅπως ἀγορὰ καὶ ἐργαστήρια καὶ τὰ ἄλλα ὅσα δημόσια δεῖηι ἐξαιρεθῆι· ἐπιτε[λ]εῖν δὲ ταῦτα τοὺς ἀποδειχθέντας ὡς ἂν δύνωνται τάχιστα·
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> (col. 1, 6-28)

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65 Arist., *Pol.* 1331b18-1331b23 (transl. N. Cahill).

66 See discussion in Shipley 2005, 378-80.

67 Cf. Snodgrass 1991, 1-2.

68 Merritt 1935, 359, no.1; cf. Maier 1959, 221; Holland 1944.

> In order that the people of Colophon, since King Alexander and Antigonos bestowed freedom upon them, may show themselves in every way zealous of preserving the glory of their ancestors, be it resolved by the people in the name of Good Fortune and for the safety of the entire people of the Colophonians that the ancient city, which brought glory (in the eyes of all Greeks) to our forefathers when they received it from the gods and established it and when they founded its temples and altars, be enclosed within a common system of walls together with the present city. In order that this may be effected with all speed, the priest of Apollo, the other priests and priestesses, and the *prytanis* together with the council and those appointed in this decree shall on the fourth day of the ensuing month go down into the ancient market place to the altars of the gods which our ancestors bequeathed us and shall vow to Zeus Soter, to Poseidon Asphaleios, to Apollo Klarios, to the Mother Antaia, to Athena Polias, and to all other gods and goddesses as well as to the heroes who occupy our city and country, that, when our blessings have been consummated, they will hold a sacred procession and perform a sacrifice in whatever manner the people may decide. Ten men are to be appointed who shall plan the walls: how they are to be drawn and how they are to be joined to the existing ones so as to obtain the maximum of strength. After due consideration they shall approve of an architect, whoever seems to them best qualified to take charge of the work on the walls. They shall also consider and approve of the salary for the architect, plan for the raising of foreign money, study the manner in which the roads and building lots shall be laid out and advantageously sold [or leased], and plan for setting aside a market place, workshops, and all other necessary public buildings. The men designated are to complete these tasks as soon as possible.[69]

As well as referring to the planning of space within the city, the text emphasizes two other major elements of the process: *finance* and *time*. Inscriptions related to construction within Greek cities are not rare,[70] although the extant examples are mostly concerned with public building projects.[71] By the end of the 4th c., the processes involved in the undertaking of building projects had become highly sophisticated. From epigraphic evidence scholars have synthesized the procedures concerning the construction of public buildings.[72] The source material ranges from the 5th to the 2nd c., but much of it comes from the 4th and early 3rd c.[73] The following is a synopsis of F. G. Maier's reconstruction of the processes which could be involved in the construction of a city wall:

- A commission was appointed by the *polis* to oversee the work, which could include members with either financial or technical expertise.[74] Their responsibility could include: obtaining finances; the hiring of architects; supervision of the work; the provision of building material; the securing of contracts; the paying of staff; and checking the work upon completion to ensure that it conformed to the legal prescription.
- The building commission worked together with architects to come up with a design and an estimate of costs. These proposals were then put before the council of the *polis* for approval.
- The architects could be chosen through competitive tendering: a competition was created for applicants to create a design and simultaneously an estimate of the costs involved. The most favourable one was chosen, and the same design and cost estimate became the basis for the contracts required for the project.
- In relation to city wall construction, the undertaking was nearly always carried out by private contractors, meaning that there is not a single reference to a workforce of the *polis* itself being responsible for the work.
- The contracts were numerous, and both the *polis* and the contractor were bound by them. There were also individual contracts for workers' wages and even delivery contracts for the material. Legally binding deadlines and technical instructions were often included in the text.
- Mentioned are site managers who had to ensure completion dates were adhered to.

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69 Transl. L. B. Holland.
70 Scranton 1960.
71 Maier 1959 and 1961; Scranton 1960; Burford 1969.
72 Davis 1937, 110-20; Maier 1961, 2 and 40-61; Burford 1969, 88-191.
73 Maier 1961, 38.
74 Cf. Burford 1969, 127-35.

Failure to keep to the conditions set by the contracts could, and did, lead to court cases. In an example from Olbia (Pontic) a magistrate from the building commission had to pay compensation when one of the contractors broke the contract and disappeared.[75] Vitruvius mentions an 'ancient' law from Ephesus[76] which states that architects were obliged to provide a cost estimate when they received a commission; that their property was held as security against this estimate; and that an equivalent portion of it would be forfeit if the actual costs were more than a quarter above those agreed.[77] Maier highlights that in nearly all of the wall-construction inscriptions financing was the main problem.[78] Details of finance take up more space in the inscriptions than technical or organisational matters. The solutions were varied: loans were raised, as in the Colophon example, which could come from foreign *poleis* or from wealthy citizens.

The importance of finance is emphasised by some inscriptions relating to the construction of the Long Walls. Many of them are bills or invoices which list building materials that were supplied, even down to the individual brick, each quantity having a corresponding price. Competitive tendering, cost estimates, the organisation of labour, the supply of material, deadlines, contracts and special measures for the provision of funds all fall under the heading of 'resource management'. The epigraphic record and other written sources relating to resource management have made possible research on specific building programmes and their economies,[79] but what has not been debated by ancient or modern theorists is how resource management could have affected the physical structure and development of new Greek foundations. We will make a start here by looking at large-scale house construction.

If finance was of the utmost concern for large-scale public works, and since the greatest percentage of a new city's surface area was occupied by housing, then efficient resource management must have been a key planning tool in the construction of a city's housing. A glimpse into this process may come from considering how a preconceived design was employed in the planning and construction process. The archaeological remains of houses have led some to believe that they were constructed based on a predetermined design. There is evidence from wall construction inscriptions that such a design also served as a basis for cost estimation since it provided a means for those involved to conceptualise aspects of the project before it began. The creator of the design, the architect, was in the best position to say what quantity of materials would be required; how long the work would take; and the number of workers needed. Thus he could calculate how much money should be raised.[80] These estimates then became the basis for the contracts and the prices and deadlines contained within them. The cost estimate connected to the design would have allowed effective financial planning before the project started. This cost assessment would dictate the size of the loans required; it would have been the basis for knowing how much public revenue needed to be set aside and indeed for deciding if the project could be afforded at all. When mentioned in inscriptions, the estimate of a project's cost was the responsibility of those who had to conceptualise the project beforehand. In the Colophon inscription, in addition to the planning of streets and public places, the building commission was required to hire an architect, set his salary, raise foreign loans, and sell building-plots to raise extra funds, and they were legally obliged to do this as quickly as possible.

Viewed in this light, the design played several key rôles beyond that of a set of building instructions. What form such a design would take it is now impossible to say with certainty. J. J. Coulton's analysis of the transmission of architectural design concluded that, although there is some evidence

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75 Maier 1959, 264-72.
76 Vitr. 10.*praef.* 1.
77 See also Burford 1969, 91; Anderson 1997, 12.
78 Maier 1961, 55; cf. Coulton 1977, 17-23; Anderson 1997, 11-14.
79 E.g., Burford 1969; DeLaine 1997; Davies 2001.
80 Cf. Burford 1969, 138-45.

for the use of drawings and models in this period, the abstract representation of the structure to be built was most likely to assume written form as a detailed technical description: the *syngraphe* or *syngraphai*.[81] Others have argued that models and drawings of buildings were employed by Greek architects,[82] but Coulton emphasises that there is direct evidence only that these forms of representation were used for individual structural elements.[83] One difficulty is that the relevant technical terms confound clear definition.

A few extant inscriptions relate to house construction at Epidauros,[84] and one at Delos,[85] but they are not related to the present context of a new foundation. One of the Epidaurian texts, dating from the early 3rd c., concerns the construction of several houses on a mountain to the northeast of the sanctuary.[86] It was clearly for a group, since 40 lintels were required for the work. It contains a detailed specification of the work to be carried out; for example, it refers to a contract for the excavation of drains, and one for a certain Kallipos who was paid 11 obols for each 10-ft section of wall he plastered.

At a new foundation, however, it would be more reasonable to suppose that many home-owners undertook this work themselves. Although owners appear to have had the ability to construct their own homes, many of the constituent elements were unlikely to have been produced by the household: they would have been obtained through exchange of some kind. The most obvious examples are roof-tiles and wooden structural elements such as doors and beams, which would have required carpentry and metal parts (nails, rivets, locks). Wall-plaster and most of the decorative elements would probably have had to be obtained from a commercial producer. Sun-dried bricks, though made of little more than mud and straw, also appear from the wall inscriptions to have been paid for, and this may have been true for similar bricks used in house construction, at least from the 4th c. onwards.[87] No accounts related to such transactions have survived, but an inscription from Delos suggests that the recording of building accounts on perishable materials was a widespread convention during this period.[88]

Since houses made up the majority of a town's structures, the quantity of structural elements required for the city's housing could have been enormous, depending on the size of the settlement. Here too a predetermined design could have been useful as a planning tool. If a house design was established beforehand, with the length and height of the walls, size of roof (and thus number of roof-tiles) and number of doors all known, it would be possible to estimate the building materials required for each house. The house design, then, would also have represented a record of the quantity of materials and structural elements required to build it. The building accounts related to the group of houses constructed in Epidaurus refers to the procurement of timber,[89] which was delivered by the supplier in 6 predetermined lengths.

Archaeological evidence generally indicates that cities at this period were mostly made up of equal-sized building-plots,[90] placed, when possible, on equal-sized *insulae*. In theory, planners could establish how many blocks the new settlement was going to have before the construction

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81 Coulton 1983, 453-68. For examples related to public architecture, see Heisel 1993, 162-64.

82 Benndorf 1902; Gros 1976, 59-60; Hoepfner and Schwandner 1994, 89. See also the important discussion on the problems with the surviving evidence by Heisel (1993, 154-83); cf. Haselberger 1997. Plato (*Leg.* 643b-c) advocates that a future builder (*oikodomounta*) should practise with 'toy houses' (*paideia oikodomêmata*), as observed by Taylor (2003, 32).

83 Coulton 1983, 458; evidenced by Heisel 1993, 159 and 169-75.

84 *IG* IV² I, 110; *SEG* XV 207; *IG* IV² I, 109; Burford 1969, 77-79.

85 *IG* XI,2 287, A143 ff.

86 *IG* IV² I, 109.

87 Kluwe 1989, 37.

88 *IDelos* 509, 29; Burford 1971, 71-72.

89 *IG* IV² I, 109 B 135 ff.; Burford 1969, 177.

90 Cf. Cahill 2002, 29-30.

work began, and thus work out the number of ground-plots. From this figure, the number of houses could be estimated before construction began. This calculation would appear essential in order to know, prior to the start of construction work, how many settlers the town would accommodate. If the quantity of building materials required for a single house was known, and the number of houses to be built, simple multiplication would give a basic estimate of all the required building materials for the residential areas. Only then could a cost estimate be established for the project. To judge by the wall inscriptions, cost estimation prior to construction was essential. The city's housing would have consumed a very large proportion of the total sum required to build the city. A predetermined house design would have been an indispensable aid for resource management because it represented a *unit* of the total quantity of building materials required for the residential quarters.

Thus far the model has been kept simple for the sake of explanation, but the situation will have been complicated by a number of factors for which we have some evidence. The provenance of the building materials is a complex issue. Because some elements, such as doors and roof-tiles, could be costly, in some cases the settlers brought these materials with them. Literary sources, inscriptions and archaeological evidence indicate that doors might be removed when houses were sold or rented: they were probably taken by their owners to be fitted in new houses.[91] There is also evidence that houses were sold without roof-tiles, probably because they were removed by the vendors for use in their new houses.[92] Antigonus' letter states that the roofs of the Lebidians' old houses should be used for their new houses at Teos.[93] At Priene, it seems likely that the majority of the roof-tiles were provided under private contract during the foundation process; the excavators considered that, due to the ubiquity of his stamped tiles, a certain Hermaios had practically monopolised the supply for the housing.[94] A stamp of the coat-of-arms of Priene also appeared on these tiles, suggesting that they were produced locally. Hoepfner and Schwandner state that new building materials would usually come from within the *chora* of the new city.[95] It seems reasonable to assume that the boundaries of the territories were fixed so that they encompassed not only good agricultural land but also forests and potential quarry sites. It would make sense for a city to be as independent as possible in terms of raw materials. The 4th-c. contracts for the construction of the Asklepeion at Epidaurus, however, reveal a more complex situation:[96] a variety of different woods were required because of their particular structural and decorative qualities, and the only sources of timber mentioned were Crete and Corinth (the accounts indicate that the timber was not cheap).

At first, many new sites were without established commercial infrastructure. Piraeus and Colophon were unusual in having established urban centres on site or nearby. While many of the materials needed were close at hand, it is unlikely that each household produced all of the structural elements needed for its house. Specialists will often have provided roof-tiles, nails and doors, and they would have been paid for their services: either men with relevant skills would have been included amongst the colonists or such individuals would have been brought in from the outside on a short-term basis. Some inscriptions from Epidaurus refer to payments made to heralds (*karykes*) for announcing at 7 different *poleis* that building contracts were up for sale.[97]

The development of methods for mass house construction seems to be related to craft specialisation. Piraeus was constructed at a time of diversification in craft specialisation at Athens, with new professions being created and when Athens represented the benchmark for quality in handicrafts.[98] In carpentry, for example, joiners, shipwrights and cartwrights start to be differentiated and more

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91 Kent 1948, 293; Osborne 1985, 121; Hoepfner and Schwandner 1994, 314-15; Nevett 1999, 37.
92 Hoepfner and Schwandner 1994, 314.
93 Welles 1934, nos. 3, 4 and 7; Bagnall and Derow 2004, 11-15.
94 Wiegand and Schrader 1904, 306-7.
95 Hoepfner and Schwandner 1994, 317.
96 Burford 1969, 175-82.
97 Ibid. 160-61.
98 Heichelheim 1970, 97-102; Musiolek 1972, 79; Kluwe 1989, 36-38; Bleicken 1995, 121-23.

specialist workers such as chair- and bed-makers.[99] This period also saw an increase in the number of minted silver coins at Athens, which indicates a rising level of sophistication in the organisation of labour and in the economy that supported it.

If a house design increased the accuracy of financial planning in connection with the construction project, one must ask 'Who paid?' The wall inscriptions mention a variety of sources for these very public projects, including treasury funds, special taxes, public revenue and benefactions, from both the citizens as well as wealthy outsiders, such as Hellenistic kings. Antigonus' letter gives details of how the Lebidians were to receive finance for the construction of their new houses: the 600 richest Teans were requested to give loans, which were to be used to buy the Lebidians' old homes from them so that they had liquid assets for new house construction. The wealthy Teans were to be repaid from the proceeds of public revenue over one year, meaning that ultimately the *polis* would have footed the bill.

Financial solutions were necessary before construction began. The Colophon inscription mentions that building-plots were to be sold, which is unusual. If old centres were given up, then any money they had in their treasury may have been transferred to the new centre and might have been available for the new construction. Here it is not so important, however, to establish who paid, because the benefit of the system would apply to whomever this burden was placed upon. If we take a hypothetical situation of a new city with the costs of house building placed on the settlers themselves, it would be advantageous to both the founders and the settlers if they had an estimate of costs beforehand — initially, to ascertain if they could afford it. The construction of a new city was potentially a risky project, and it would be doomed to failure if those who had to pay underestimated the costs. As the wall inscriptions explicitly tell, financial solutions needed to be decided beforehand, and a design was employed to assist in the task. As the structural elements of the city's buildings became more standardised, the effectiveness of the planning and control over the resources to be used in new construction would have increased; it would also have allowed a more effective organisation of labour and possibly have increased the speed of the work.

Social stress during the foundation process and the need for equality in property distribution

The equality seen in the way the city was organised physically could have been a reflection of other aspects of the foundation process. The sources convey the sense that treating people equally was essential. The foundation of archaic Sybaris is said to have been disrupted due to some kind of civil unrest as a result of some citizens receiving preferential treatment.[100] Aristotle deals with the same theme in his *Politics*.[101] He refers to the constitution of Phaleas of Chalcedon, who was the first to advocate equality of property for all, especially at the founding of a city state. The reason was to avoid civil unrest and crime. Aristotle recognised that economic inequality led to 'party strife', but he was perhaps more concerned with it leading to stasis in the development of the *polis*.[102] Plato too recognised that perceived inequality in property distribution could lead to strife during the foundation process:

> οἷς δέ, ὡς ἡμῖν νῦν, θεὸς ἔδωκε καινήν τε πόλιν οἰκίζειν καὶ μὴ τινας ἔχθρας εἶναί πω πρὸς ἀλλήλους, τούτους ἔχθρας αὐτοῖς αἰτίους γενέσθαι διὰ τὴν διανομὴν τῆς γῆς τε καὶ οἰκήσεων οὐκ ἀνθρώπινος ἄν εἴη μετὰ κάκης πάσης ἀμαθία.
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> But as for those to whom — as to us now — God has given a new state to found, and one free as yet from internal feuds, that those founders should excite enmity against themselves because of the distribution of land and houses would be a piece of folly combined with depravity of which no man could be capable.[103]

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99 Kluwe 1989, 37.
100 Diod. Sic. 12.11; Thuc. 7.33.
101 Arist., *Pol.* 1266a-b.
102 Ibid. 1301b.
103 Pl., *Leg.* 737B (transl. N. Cahill).

The sources show that equality in the distribution of property was crucial during the foundation process. It was the perceived equal *treatment* of people that was important because it was impossible to distribute property with absolute parity. Despite equal distributions of agricultural land in the *chora* and of building-plots in the city, there were still unavoidable inequalities. The fertility of the soil would vary across the territory, meaning that some would derive more yield from their acre than others. Inside the city certain building-plots appear to have been more sought after. From the inscriptions from Olynthus relating to house sales, Cahill notes that houses near the agora were consistently more expensive than those farther away, indicating that they more sought after.[104] It is more likely that it was the appearance of treating everyone equally in property distribution that was the issue, rather than a precisely equal division. This was to avoid public disorder.

To understand why unrest was a risk in the early days, it is necessary to comprehend something of the social pressures created by the foundation process. The construction of a new city meant that the citizens who came to live there had to give up their old homes. They had to give up one way of life and start a new one. In a case of *anoikismos*, as at Olynthus, populations from other cities started to arrive in 432 B.C. and settled in a newly planned part of the town. With *synoikismos*, this often involved the incorporation of new citizens who came from non-urban centres. Due to the move, the political, religious, social, ancestral and economic ties with the former settlement would have suffered something between disruption and total destruction. The old way of life would have been consigned to memory. The first tasks that most citizens were given upon arrival were probably manual: the city needed to be constructed, and the citizen body will have provided the greatest number of hands. This would have taken them away from their normal subsistence/economic activities. The countryside too would need to be worked. For *ex novo* cities, new allotments would have to be cleared and tilled prior to the first sowing of crops. Supplies on hand will have decreased in the period between the allotment of land and the first harvest. Until the city was finished, temporary solutions would have to be found for food, water and shelter. Provisions would have to be made for the very young and infirm. At the outset many of the newcomers would be foreign to one another, perhaps with different religious and social customs. The period of construction was probably also one when vulnerability against attack was perceived more intensely: a sense of security comes more easily when the walls are high and gates and doors can be shut at night. The construction phase of the new city will thus have been one of increased social stress.

In this way unrest was a potential risk. Phaleas' desire for an equal distribution of property at the time of foundation, if accurate historically, was perhaps born from experiences of this kind. How long the construction process lasted for any given city is impossible to estimate, but the sooner it was over, the better for all involved. There is some evidence to suggest that pressure was applied to settlers to take up their new possession quickly. In Antigonus' correspondence with the Teans he states that private building-plots which remained unoccupied would be made public land if they were not built on within three years.[105] The settlers who arrived early seem to have been given more favourable agricultural allotments. An inscription from Korkyra Melaina states that new settlers who arrived quickly would be given land of better quality.[106] The 'first-come, first-served' system can be viewed as a catalyst for the quick establishment of the population: those who were slow would forfeit something. At the same time, it was a means for the founders to treat everyone equally in relation to property distribution. Under this system all were given an equal chance to acquire land of higher quality.

A predetermined house design probably played a similar rôle. The founders could utilize the building instructions to ensure that everyone received, or had access to, the same amount of

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104 Cahill 2002, 278-81.
105 Hennig 1989, 25-35.
106 *Syll*^{3} 141; Cahill 2002, 219-22, n.27; cf. Asheri 1966, 9-16; Hennig 1989, 25-35.

The importance of flexibility in the design

By seeing the predetermined design as a facilitator of goals which have nothing to do with a desire to make all houses look the same, it becomes easier to understand why there was so much variation in the end product. The original provision of a house plan and sufficient materials to build it are grounds enough to understand why it is possible to reconstruct the original design from the archaeological remains alone. With the evidence presented here, however, there is no reason why the design had to be rigidly adhered to. Perhaps it was open to interpretation, or the materials may have been used as each household felt appropriate. It might have been more convenient for some (e.g., those who had no previous experience of living in a city or little knowledge about a house suited to an urban environment) to follow the design exactly. Others may have had explicit and/or personal requirements. Wealthier citizens may have had the opportunity to acquire additional building materials at their own expense, and may have wished, for example, to add a storey or decorate the house in a more elaborate manner.

It is reasonable to think, however, that there were some restrictions. It is probably no coincidence that at Olynthus (fig. 37) the walls which appear in the same position from house to house are load-bearing walls which supported roofs. Besides increasing the strength of the walls and helping to solve drainage problems, two other consequences arise from this arrangement: firstly, the roof area would have been roughly the same from house to house, so each had a similar number of roof-tiles; secondly, the houses would have had a comparable number of similar roof-timber elements. The other interior walls of houses at Olynthus vary immensely, but under the model presented here there is no reason why they should not. It was probably important to maintain flexibility within the overall design. If we imagine the design as a technical description, it would be reasonable to assume that it prescribed *only* the most important elements of the house, such as the load-bearing walls and roof size. This is supported by surviving *syngraphai* for public buildings which could also be incomplete,[110] as well as by the archaeology of the Olynthus houses and others presented below. The basic design could then be elaborated by each owner according to his particular needs and desires. By seeing the design as being flexible as to the way construction was carried out, it is easier to understand why there was so much variation in the end result. This hypothesis goes some way to explain why Cahill has difficulty believing in the existence of an original type at Olynthus.

Cahill is right to say that one cannot encapsulate an entire city's habits into a single dwelling; but if we are to believe in the existence of a predetermined house design, this was effectively the task of the architect responsible for it. The only solution would be for the design to have considerable inherent flexibility. What both *prostas* and *pastas* houses share in their design is the presence of rooms adjoining the street front. These spaces are generally interpreted as storerooms, workshops, shops or stables; they appear in most cases to be related to the household economy. In cities such as Priene and Olynthus where an extensive area has been excavated, the differences in the uses of these spaces are more clearly defined from house to house. At Olynthus, for example, the dwellings on the wide Avenue B have many more of these rooms opening onto the street than do houses on more minor streets.[111] The situation is the same at Priene, where street-front rooms are more likely to have a street access if the house is on a main avenue.[112] This leaves the impression that they were so designed for public interaction of some kind. The contrast with houses on minor roads is important, because there the same rooms were more likely to be accessed from the interior of the dwelling. This suggests that the same spaces could be used for different purposes depending on where the house lay within the city and on the profession of the owner/tenant. With minor architectural changes, these rooms could be used for diverse functions. Cahill cites a passage from Aeschines where he appears to confirm this view about workshops in general.[113]

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110 Heisel 1993, 163-64.
111 Cahill 2002, 274.
112 Jameson 1990, 102; Hoepfner and Schwandner 1994, 219.
113 Aeschin., *In Tim.* 1.123-24; Cahill 2002, 274.

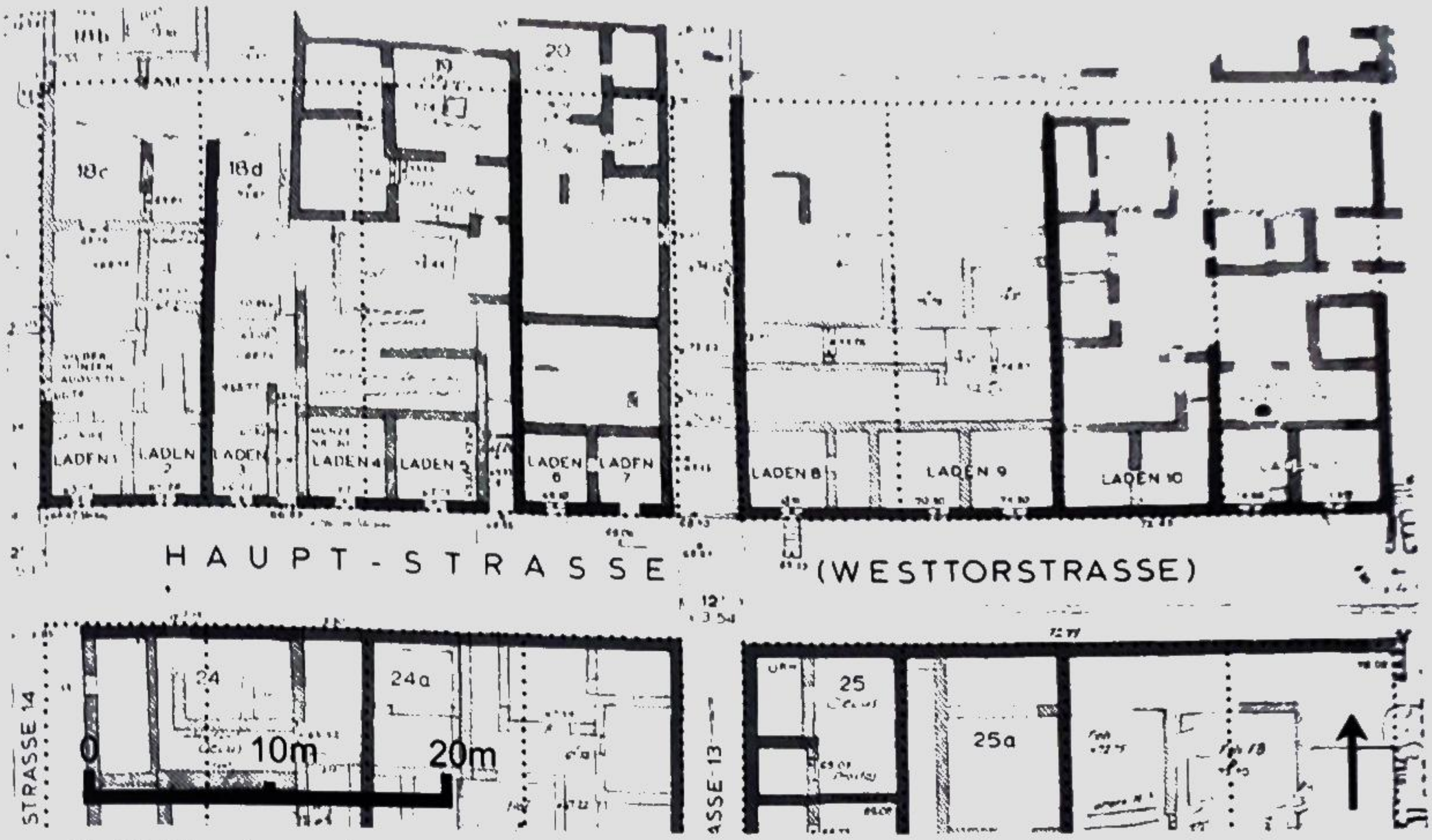


Fig. 38. Priene: houses with shops (*Läden*) opening onto the main street (*Westtorstrasse*) (from Hoepfner and Schwandner 1994, fig. 186. © DAI Berlin; W. Jo Brunner, A. Tsingas).

This flexibility is perhaps seen more clearly in the *prostas* house, which had a tripartite system of street-front rooms, courtyard, and living quarters at the back. The front and back ranges of rooms were made independent of one another through the space of the courtyard in between. This meant that changes could be made to either range without disturbing the architectural integrity of the other. The extensive changes made to the Priene houses (fig. 38) indicate that this flexibility was exploited.[114] The intervening courtyard also allowed space for the enlargement of either range of rooms, or for the construction of side-rooms. The separation of these units also possibly allowed them to be rented out singly.[115] The Priene plan indicates that owners had few restrictions on making architectural changes to newly constructed houses, although the line of the back wall of the street-front rooms remained generally consistent (fig. 38) even though some properties appear to have been enlarged (this was, of course, a load-bearing wall). The original creation of the *prostas* type, then, may have come about through the recognition that urban housing needed to be adaptable to the owners' needs, whilst still maintaining the advantages brought about by the application of a house design during the initial construction phase.

This model would fit with the perceived increase in urban craft specialisation from the 5th c. onwards. With an augmentation in the number of professions, it would have increased the range of activities taking place within houses.[116] The finds from the Olynthos houses give evidence for agricultural processing, weaving, baking, coroplasty, fishing, masonry, sculpting, weapons manufacture, and coin counterfeiting.[117] These activities were visible because they led to the deposition of durable artifacts of stone, metal and ceramic, and presumably they do not represent the full spectrum of professions.

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114 Cf. Hoepfner and Schwandner 1994, 38-39.
115 Cf. Hennig 1999, 596-600.
116 For a general discussion on the household economy, see Ault 2007.
117 Cahill 2002, 274-77.

The choice of design

Based on the limited archaeological evidence, the two dominant house-designs during the period were the *prostas* and *pastas* types. But why was one particular type chosen above another? One reason may be related to the surface area the structure occupied. The mean average surface area of the *prostas* examples mentioned above is 227.25 m², whilst the *pastas* house at Olynthus has an average area of 295 m².[118] It would thus be possible to fit many more houses of the *prostas* type within a fixed area than of the Olynthos *pastas* type. This model fails, however, when we look at other examples of the *pastas*. The surface area of the possible *pastas* house at Agrigento was 230 m².[119] Rural examples of the *pastas* show greater differences in size: the Dema house in Attica has a surface area of 334 m²,[120] but the Vari house had only 234 m².[121] Although the excavated examples of the *prostas* house reveal relatively little variation in their surface areas, the known *pastas* houses show considerably more.

The Dema and Vari houses are possibly the two extant examples that bear the greatest resemblance to the Olynthos houses. They were found in non-urban settings. The existence of the *pastas* type in rural contexts, dating from before and after the occupation of Olynthus, is an indication of its success in both town and country. As a type, it may have evolved in rural contexts and subsequently came to be adapted for urban settings. Hoepfner and Schwandner see the *Herdraumhaus* also as having rural origins, in an area that had predominantly a pastoral economy. They describe it as "a farmhouse form squeezed into an urban corset".[122] The *prostas* house stands out because it has not yet been found in anything approaching a rural context; this implies that it was designed specifically for an urban society or (perhaps more accurately) an urban way of life.

There is a tendency to try and associate particular types with particular geographic areas: the *prostas* house is dominant in W Asia Minor but is also found in mainland Greece;[123] the *pastas* house is not found in Asia Minor. We may note that the so-called *Normalhaus* of Hellenistic Delos bears a passing resemblance to the *prostas* house[124] but that is probably as far as the relationship goes; there are marked similarities in the articulation of space, but they are insufficient to place these dwellings on the *prostas* 'family tree', in view of the absence of the two street-front rooms and an intervening corridor. The areas associated with the household economy are actually found at the rear of the *Normalhaus*, as opposed to the front of the *prostas* house. Further, they were not standardised, their dimensions and surface areas varying enormously, but this was largely due to the ancient and irregular street system which excluded the possibility of regular sizes of house plots.

It is difficult to explain choices of house form in individual settlements, but it is likely that our understanding of them will eventually be enlightened by those who study the house as a reflection of society. The organisation of domestic space was a manifestation of societal needs. Here I have simply tried to demonstrate that other factors also played a rôle in shaping the architectural forms of Greek houses.

Conclusion: the Greek evidence

The inscriptions related to public building works indicate that the use of an architectural design had become an essential tool for the financial planning and resource management of building projects. Because houses probably consumed the greatest proportion of the building materials needed to build a new city, it is reasonable to assume that the same principles were applied in the

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118 Ibid. 75.
119 De Miro 1980, 714, pl. VI; Nevett 1999, 135.
120 Jones, Sackett and Graham 1962; Nevett 1999, 83.
121 Jones, Sackett and Graham 1973; Nevett 1999, 95-96.
122 Hoepfner and Schwandner 1994, 323.
123 Nevett 1999, 170-71.
124 Trümper 1998, especially 107-25. I owe this reference to R. Westgate.

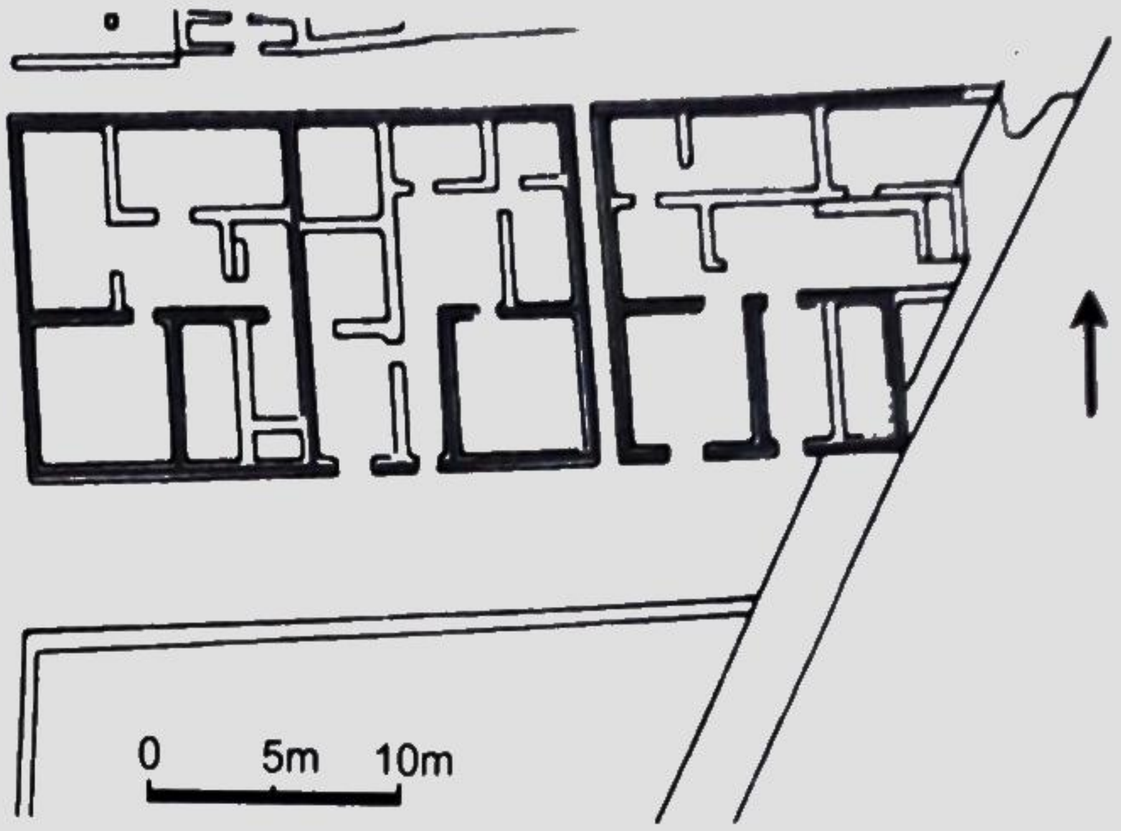


Fig. 39. Herakleia Minoa: excavated houses. Wider load-bearing walls are shaded (after Campagna 1996, 112 fig.).

construction of domestic architecture. This appears to be confirmed by the archaeological remains of houses, which reveal that they were built with the aid of an architectural design. It can be seen clearly only in orthogonally planned and extensively excavated settlements of the 5th c. onwards. The benefits the design brought to public works were felt in the mass construction of private houses as it allowed many aspects of the project to be conceptualised before work began, the most important being an estimate of cost. During actual construction, the design probably contributed to an increased efficiency in the management of resources (building materials, labour and time).

The relocation of communities led to increased social stress, and the requirement for founders to treat settlers equally in terms of property was a pragmatic response to avoid civil unrest. The house design, representing a unit by which equal quantities of building materials could be distributed to settlers, may have helped. Houses built to a similar design also increased the structural integrity of residential *insulae*. It does not appear as though these house designs came with comprehensive instructions, but were limited to where load-bearing walls were to be placed, which regulated roof size and determined the most basic organisation of space inside. This allowed flexibility in the way households could construct their homes, probably necessary at a time when professions were diversifying: the house could still be shaped individually to correspond to the owner's needs, as the evidence at Olynthus demonstrates. The diverse needs of an urban society were reflected in the design, especially in the *prostas* house. While Hoepfner and Schwandner usefully emphasized that houses were built according to a design, the *Typenhaus* theory now seems to be untenable. Cahill's belief that households were responsible for house design still partly holds, but their freedom of choice was probably restricted to the elaboration of a basic design provided by the commissioners and architects working for the *polis*.

It should be relatively easy for archaeologists to identify this system in the future. Take, for example, some late 4th-c. houses (fig. 39) excavated at Herakleia Minoa.[125] Each has an individual layout, but the load-bearing walls (shaded) have an identical articulation in each house. This should help establish the temporal and geographical extents of the phenomenon. The evidence from Herakleia Minoa indicates that the system was being used in the W Mediterranean, an important observation as we turn to the Roman evidence.

The traditions of research into Roman urban housing

Scholars researching the Roman house have available a text which deals directly with Roman domestic architecture: Vitruvius' *De Architectura*. Although written in the Augustan period, it is the

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125 De Miro 1966 and 1980; Campagna 1996.

earliest surviving treatise on Roman housing. While the 10 books are a valuable resource, they have no counterpart: the discussions of many scholars have thus been circumscribed by Vitruvian terminology, which too often has shaped studies of Roman housing.[126] Vitruvius was writing for an élite audience, being mostly concerned with aristocratic housing. Further, at Pompeii and Herculaneum, the prime sites for the study of Roman housing, there are many houses which appear to have had wealthy owners. These factors have led studies on 'the Roman house', even the most recent ones, to focus, at best disproportionately and often exclusively, on the homes of the wealthy.[127] There is a strong tendency, as B. Tamm remarked, for the houses of Pompeii and Vitruvius' work to be used to explain each other.[128] Most of the other Roman literary references also emanate from the pens of the privileged classes who owned dwellings of the same kind.[129] Excavation reports and surveys of Republican lower-class housing in urban contexts are few.[130] The atrium of the aristocratic residence was an arena for the rituals of the *clientela* system, but few scholars have shown any concern for where the clients themselves lived: visitors come into view when they enter the atrium house, and fade into obscurity as soon as they depart.

Resource management and the development of Roman architecture

The introduction of Vitruvius' Book 10 has particular relevance here. He starts by describing the 'ancient law' from Ephesus which made architects financially responsible for their own cost estimates.[131] He goes on to lament that many architects of his day did not adhere to this principle and allowed costs to soar during the construction process.[132] He was writing, however, after the public contract system under the censors had suffered a collapse, a collapse which appears to have been linked to the political upheavals of the 1st c. B.C.[133] Vitruvius sets himself in direct contrast to those guilty of financial mismanagement.

J. C. Anderson has analysed Vitruvius' text to establish what sort of responsibilities were expected from the Roman architect.[134] They included: design and planning; cost estimation and control; publication; general supervision and organisation of the building process. He may have had the duties to provide building materials and supplies, hire labour, subcontract, and look after the day-to-day operations on site. He was responsible for the revisions and adaptations of plans as construction took place and for fulfilling the legal requirements of the contract. This has great similarities to the tasks of Greek architects as gleaned by F. G. Maier from the wall inscriptions. Vitruvius indicates that resource management was an important factor in building projects, possibly an inheritance from the Greek tradition (see pp. 51-53). He gives it a name, *distributio*, which he says is the management of resources, finances and the building site.[135]

There is almost no direct literary or epigraphic evidence, however, that architects were working in this way during the 3rd c. Livy states that Rome's first public building contract was in 378 B.C. for the construction of the fortifications (see p. 51). Some have considered Livy's use at that date of terminology related to public contracts to be possibly anachronistic,[136] while others see it fitting.[137] In light of the contemporary Greek evidence (see pp. 98-100), it seems unfeasible that such a project

126 Hales 2003, 3.
127 E.g., De Albentiis 1990; Pesando 1997; Hales 2003.
128 Tamm 1973, 53; cf. Laurence 1995, 63-65.
129 Nevett 1997, 289-90.
130 Packer 1975; Evans 1978; von Hesberg 1985; Bruno and Scott 1993; Brothers 1996, 49-57.
131 See n.76 in this chapter.
132 Vitr. 10.*praef.* 1-2.
133 Anderson 1997, 85-87.
134 Ibid. 3-67, especially 13.
135 Vitr. 1.2.1 and 1.2.8. See also Taylor 2003, 26.
136 Frank 1933, 102; Cornell 1995a, 331.
137 Badian 1972, 15-16; Anderson 1997, 80.

was undertaken without a public contract, especially as Greeks were involved (see p. 51). Livy also refers to the appointment of special commissioners (*duumviri aedi locandae*) responsible for contracting the construction of temples, the first being that of Juno Moneta in 344 B.C.[138] The sources also refer to public building projects undertaken by aediles during the 4th and 3rd c.[139] The use of public contracts presupposes the existence of private contractors, and therefore also architects.

By the early 2nd c., the level of detail contained within Roman building contracts equalled that demonstrated by the Greek evidence, not only in connection with public works, but also with private construction. Cato's *De Agricultura* includes an ideal contract for the construction of a farmhouse, and the level of detail within it is remarkable:[140] the contract not only stipulates all the structural elements of the house, but also states that the contractor should be responsible for providing individual furniture items. The price of roof-tiles was to be agreed beforehand. It even lists the number and type of tools that the contractor himself had to provide. The contractor was responsible for the provision of a great variety of products presumably from a similar variety of specialist craftsmen.[141]

Cato's interest in efficient resource management was made clear during his controversial censorship in 184 B.C., when he attempted to curb the enormous profits being made by public contractors.[142] There is no direct reference to what status the contractors — the *publicani* and *redemptores* — had until 169 B.C., when Livy states that they belonged to the equestrian class. The same may be inferred from earlier references.[143] The *publicani* could also be responsible for supplying building materials. In this period the wealth of Rome was growing rapidly. In the mid-2nd c. Polybius wrote that public expenditure by the censors was the largest drain on the treasury,[144] that censorial contracts were too numerous to count, and that the contractors were working throughout Italy.[145] All of this serves to indicate that by this stage the building industry played a major, if not a central, rôle in the redistribution of Rome's wealth.

The development of construction techniques also received a major boost at the beginning of the 2nd c., with the introduction of *opus caementicium* and *opus incertum* which, in addition to providing extra stability, are believed to have required smaller workforces than cut stone techniques and increased the speed of construction. Economic factors were thus involved in these developments.[146] The earliest surviving public building contract (the so-called *Lex Puteolana*, dated to 105 B.C.[147]), related to the construction of a wall around a sanctuary at Puteoli, contains a level of detail at least on a par with anything seen in the Greek wall inscriptions.[148] While direct confirmation is lacking from the Middle Republican period that the Romans were focussed on efficient resource management, indications of a developed system do emerge by the 2nd c. By then the building industry was a massive concern and the accompanying system of cost control and legal safeguards had become sophisticated.

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138 Livy 7.28.5; Anderson 1997, 81.
139 Anderson 1997, 81, n.52.
140 Cato, *Agr.* 14.1-5.
141 Anderson 1997, 72-74.
142 Livy 39.44.8; Plut., *Cat. Mai.* 19; Badian 1972, 36-37; Anderson 1997, 82.
143 Livy 43.16.1-16, especially 1-4; Anderson 1997, 95-113.
144 Polyb. 6.13.3.
145 Ibid. 6.17.2-5.
146 Martin 1989, 56-57; Anderson 1997, 107-8; DeLaine 2001.
147 *CIL* I² 698 = *ILLRP* 518; Wiegand 1894; Anderson 1997, 74-75.
148 Bispham (2007, 101-3) mistakenly sees the level of detail concerning finance as a potential response to previous financial mismanagement by the senate of Puteoli. He fails to take into account the comparisons provided by Greek building inscriptions, or indeed Cato's ideal contract (see n.140). We can safely take these minutiae as being a safeguard against financial mismanagement by the contractors, but it actually protected both parties; see Anderson 1997, 74-75.

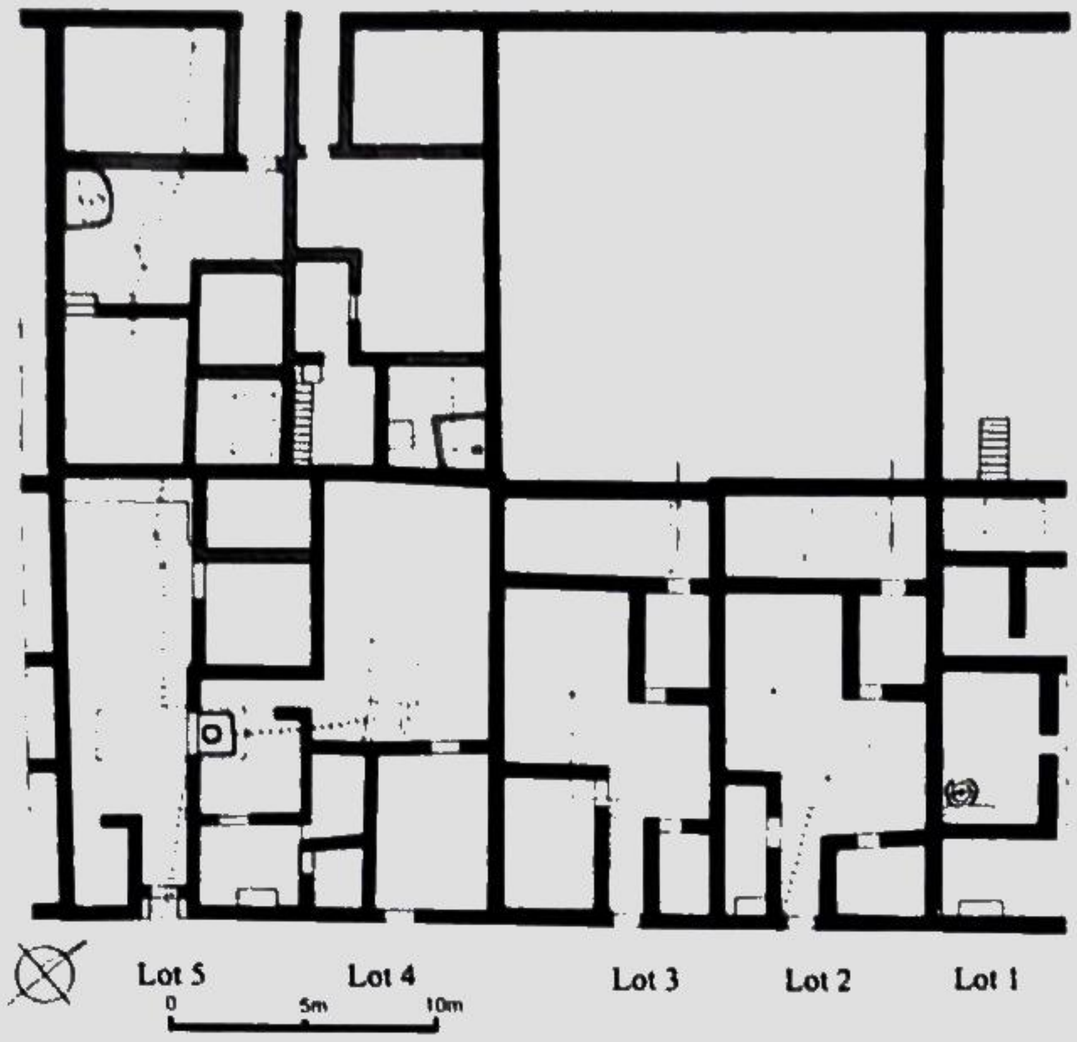


Fig. 40. Cosa: West Block, period 1.3: restored house plans (after Bruno and Scott 1993, 80 fig. 22).

A similarity between the Roman and Greek evidence is that no literary or epigraphic evidence exists in relation to the mass construction of houses in newly founded cities. Also similar is that plenty of references indicate that efficient resource management was essential for, and applied to, large-scale construction projects undertaken by the Romans. An expression of the confidence that must have accompanied such a well-organised system is perhaps reflected in the foundation of 9 Roman colonies in the single year of 194 B.C.[149] But if we go further back into the Middle Republic, can less confidence have accompanied Rome's decision to found 6 Latin colonies from 314 to 312?[150]

Roman lower-class housing

We turn first to 'lower-class housing', a term which should be taken to mean houses belonging to the lower property-classes, and be left devoid of modern semantics. At Cosa one is struck by F. E. Brown's interpretation of the type of structures the excavators found:

> The basic plan, so neatly and uniformly articulated, so simply and unconventionally roofed and so unlike the Roman atrium — or the Hellenistic peristyle house — has no counterpart, to my knowledge, in contemporary Italy or elsewhere. Since the room open on the court resembles a *tablinum*, one might surmise that the plan had been derived from a Roman or Latin prototype, of which no other examples have come to light. Even so the unified design and its application to the town plan smacks of economical housing, for an egalitarian community, in short, colonial housing.[151]

To the west of the forum between Streets L, N, 4 and 5, under what is now the site museum (fig. 5), six houses were fully excavated and another four partially between 1966 and 1972 by V. J. Bruno and R. T. Scott, who published the results only in 1993 (fig. 40).[152] While some of the houses had been remodelled at some stage, the original ground-plots were still clearly identifiable, and in at least two cases the plans of the earliest houses appear to have survived without any discernible modification. The preservation of some original house plans could well be due to the mediocre success of the town as an urban centre, but it provides a valuable opportunity for us to see what Rome's view of 'colonial housing' amounted to.

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149 Volturnum, Liternum, Puteoli, Salernum, Pyrgi, Sipontum, Tempsa, Croton and Buxentum.
150 Luceria, Suessa, Aurunca, Pontia, Saticula and Interamna.
151 Brown 1980, 65-66.
152 Bruno and Scott 1993.

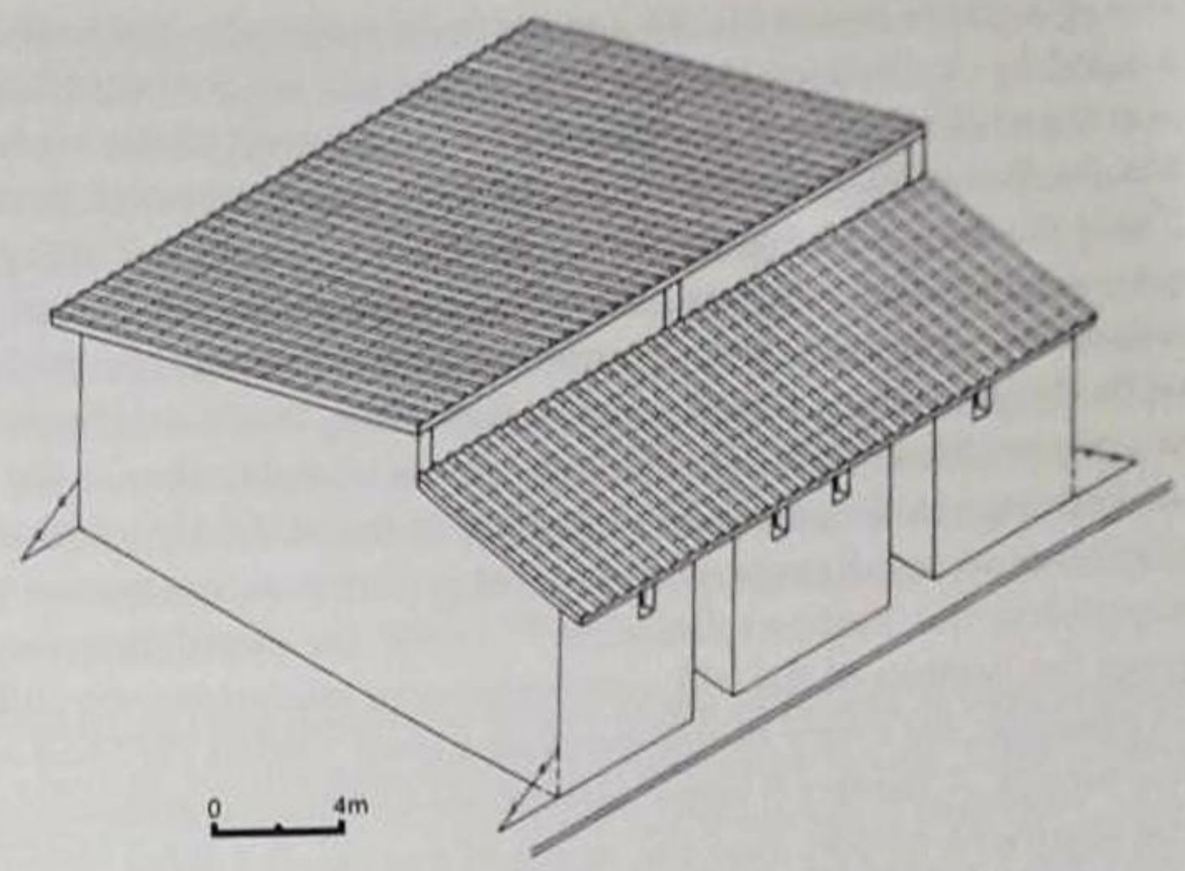


Fig. 41. Cosa: testitudinate roof reconstruction on Lots 2 and 3 of the West Block (from Bruno and Scott 1993, 26 fig. 6, reproduced by kind permission of the American Academy in Rome).

We will concentrate on what Bruno and Scott consider to be the earliest phase of construction. Clear results come from the West Block, to the west of Street M, where they excavated two houses with their original plans intact (fig. 40, Lots 3 and 2). The original plots are believed to have stretched across the entire width of the *insula*, the house taking up the SE half with a garden behind. The entire building-plot has the proportions of 1 : 4, with the houses measuring 28-30 x 56-58 ft.[153] The excavators calculated that the roof would have overhung the pavement in front of the houses, increasing the length of the building by almost exactly 3 ft.[154] This additional length would bring the overall dimensions to 28-30 x 59-61 ft. It appears as though the houses were intended to have the proportions of 1 : 2. It implies that the width of the pavement in front was also part of the allotment and belonged to the owner of the house behind.

The dating of the houses is somewhat problematic. The excavators insist that the earliest were constructed at the end of the 3rd or beginning of the 2nd, some considerable time after the town's foundation date of 273.[155] Scott suggests that there would have been predecessors to the houses he excavated, but he found no structural evidence for their existence. The houses are orientated with the short side against the street. Against the frontage are two rooms with a corridor running between them. Behind this is an open area with a cistern beneath, then another series of rooms, the last of which is placed transversely. This back room contained a soakaway, cut into the bedrock (it is indicated in fig. 40 by a square or rhomboid defined by dashed lines). The excavators believe that these houses had a testudinate roof, meaning that the structure was roofed in its entirety, as their reconstruction makes clear (fig. 41).[156]

The reason why they were prompted to this conclusion is related to how they interpreted the drainage which fed the cistern in the centre of the house. Of the houses excavated, all have feeder channels leading in from the street, while some have feeds coming in from the back of the property. Bruno and Scott supposed these drains brought water collected from the roof via the eaves. They reconstructed the pitch of the roofs so as to fit this model. They believed that pipes took the water from the roofs to the cistern feeds, even though they admitted that they found no traces of these pipes.[157] The sum total of their evidence for guttering was a single fragment of a *sima* tile which they think could have taken water from the roof at the front of the house to street level, yet

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153 Ibid. 13.
154 Ibid. 38.
155 Ibid. 27-30 and 59-60. See also the discussion in chapt. 6.
156 Brown 1980, 65; Bruno and Scott 1993, 18-19.
157 Bruno and Scott 1993, 91.

this spout is in fact evidence against the use of pipes. The testudinate reconstruction has been challenged by A. Wallace-Hadrill, who prefers to see the central part of the Cosan houses as an open courtyard.[158] He bases his views on a comparison of the evidence from Pompeii (see pp. 118-19), but he also highlights problems with the way Bruno and Scott interpret drainage to the cisterns. Their reading of the architecture is an example of how interpretations have been limited by the text of Vitruvius, who has only three roof types for his houses:[159] the testudinate and displuviate, which take the water to the exterior; and the compluviate, which draws some water to the interior of the house, where it falls into the *impluvium*. Bruno and Scott did not take into account the water-supply problems at Cosa. The hilltop was waterless due to the porous limestone;[160] the only wells and springs in the immediate area are found at the base of the hill. One was clearly used in antiquity since at some stage a mechanical system was constructed to take water from it to an aqueduct supplying the harbour facilities.[161] While the population may have laboriously collected water from the bottom of the hill, comprehensive measures were still taken to collect as much rainwater as possible, for every house excavated from 1966 to 1972 had a cistern, as do those houses around the forum. A further 8 large cisterns are distributed around the town, while the largest temple, on the southern height, had the unusual feature of a large cistern beneath its foundations to collect rainwater from the roof.

If we accept that each household collected all rainwater that fell on its property, the question remains as to how the municipal cisterns were supplied. As F. E. Brown suggested, the answer has to be from rainwater which ran off the streets.[162] The cisterns around the forum area were situated so as to take the run-off from Streets O and P and the forum itself. The presence of two large cisterns near the NW and NE gates is probably related to the fact that those gates were built at low points on the circuit and so perfectly situated to catch water running off the slopes of the roads. The cistern next to the NW gate is situated at the lowest point within the city walls. All the municipal cisterns which were not placed beneath public buildings were probably supplied solely by rainwater running off the streets: the inhabitants needed to collect all available water.

In this light, one can offer an alternative interpretation of the collection system of the houses. The opening of the feed entering from the front of the house was likely to have been at ground level and to have collected rainwater which fell from the front of the roof onto the street, in addition to rainwater which ran directly off the street. Nearly all of the feeds running from the street to the cistern are angled slightly (between 10° and 17°) away from the axis of the houses (fig. 40). The feed channels, rectangular in section (0.2 m wide, 0.15 m deep), were constructed of stone blocks lined with *opus signinum*.[163] Most houses have these angled channels on the street side. The reason for the angle seems to be related to the lie of the land. Water along the street would flow from southwest to northeast. By angling the channels towards the direction in which the water was flowing, more was likely to enter the drain than if the channel were set at 90° to the street.

Across the excavated area the situation is the same: the feeder channels are always angled towards the natural slope. Even though there were larger cisterns to collect run-off from the streets, the more water collected by the individual household, the less reliant it would be on the municipal ones. Bruno and Scott note that there were settling basins in these channels resembling those at the municipal cisterns.[164] In the houses these settling basins were present only in channels coming from the street side, not from the rear, indicating that water coming from the street side was

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158 Wallace-Hadrill 1997, 228.
159 Vitr. 6.3.1-2.
160 Brown 1951, 86-87. Cf. Wilson 2004.
161 Brown 1980, 59-60.
162 Brown 1951, 86.
163 Bruno and Scott 1993, 18-19.
164 Ibid. 18.

more likely to be dirty than that coming from the back. This does not fit with Bruno's and Scott's model of water coming from front and back being solely from the roof. The presence of a soakaway in all but one excavated property could be seen as part of this system: by ensuring that there was a separate place where waste liquid could be disposed of, it would have helped ensure that none ended up on the street, in which case all liquid thrown onto the street would have ended up in a cistern. Although *signinum* seems to have been used as a surface in many of the houses' rooms, the central areas when mentioned all appear to have had a *signinum* pavement at some stage.[165] This is the area where Wallace-Hadrill believes he sees an open courtyard. Another argument against the testudinate roof hypothesis is that the two houses which appear relatively close to their original layout, Lots 2 and 3, have no feeds leading from the back of the house, only from the front: if these houses had roofs similar to that reconstructed by Bruno and Scott, they would have lost all the water running off the back half of the house.

If one sees the Cosan houses as having an open courtyard with a range of rooms at both ends of the property, then, they appear to have close similarities with the Greek *prostas* house. Upon closer inspection, the number of resemblances only increases. My preliminary proposal is that the Cosan houses actually were based on the Greek *prostas* house. We must return to fig. 40, where Lots 2 and 3 were interpreted to be the oldest and least altered of the houses. The house-plots at Cosa have proportions of 1 : 2, which is very close to the proportions of all *prostas* houses and exactly that of the Abdera example. Like all examples of the *prostas* type, at Cosa the short side of the house is against the street. The entry to the house is formed by a corridor between two rooms which adjoin the street front, possibly the most characteristic element of the *prostas* house. The central area of the property is likely to have been an open courtyard, with a cistern below. On the N side the range of rooms is divided in two halves by a longitudinal wall. All of these are specific characteristics of the *prostas* house.

In the rear range of rooms an open space lies to the left of the longitudinal wall. This is the same in all *prostas* examples because this was where the columned *prostas* itself was situated. In fig. 40, Bruno and Scott marked crosses on Lots 2 and 3 where they believed there must have been some kind of posts or columns to support their testudinate roof. In the open room to the left of the longitudinal wall, on both lots, a cross was marked at the front of this open space. This is exactly the place where the column of a *prostas* would have been situated. A large portion of a small Doric capital (fig. 42) was found in a cistern of one house, which Bruno and Scott associate with such a support. There is evidence for stone columns being part of the *prostas* of the Priene dwellings.[166]

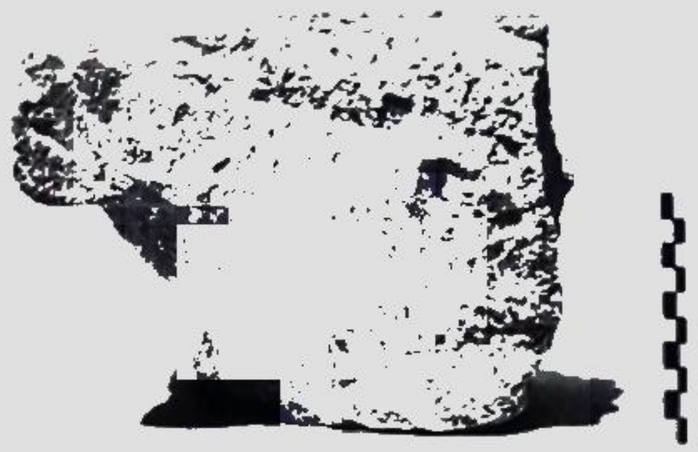


Fig. 42. Cosa: Doric capital found in the cistern of a house (from Bruno and Scott 1993, 25 pl. 11, reproduced by kind permission of the American Academy in Rome).

If this was a *prostas*, then it had a much deeper porch than any of Greek examples. In fact, Bruno and Scott interpret the space as a *tablinum*.[167] This difference might represent a Roman adaptation of the original Greek design (see pp. 131-32). There are differences in the range of rooms at the back of the Cosan houses when compared to Greek *prostas* houses, but this is no surprise. If we imagine the rear range to be the main living area, we might expect to see the social differences between Greek and Roman cultures expressed in their layout. For example, the Romans did not have a

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165 Ibid. 18-20.
166 Hoepfner and Schwandner 1994, 215-16; cf. Raeck 2003, 367.
167 Bruno and Scott 1993, 24.

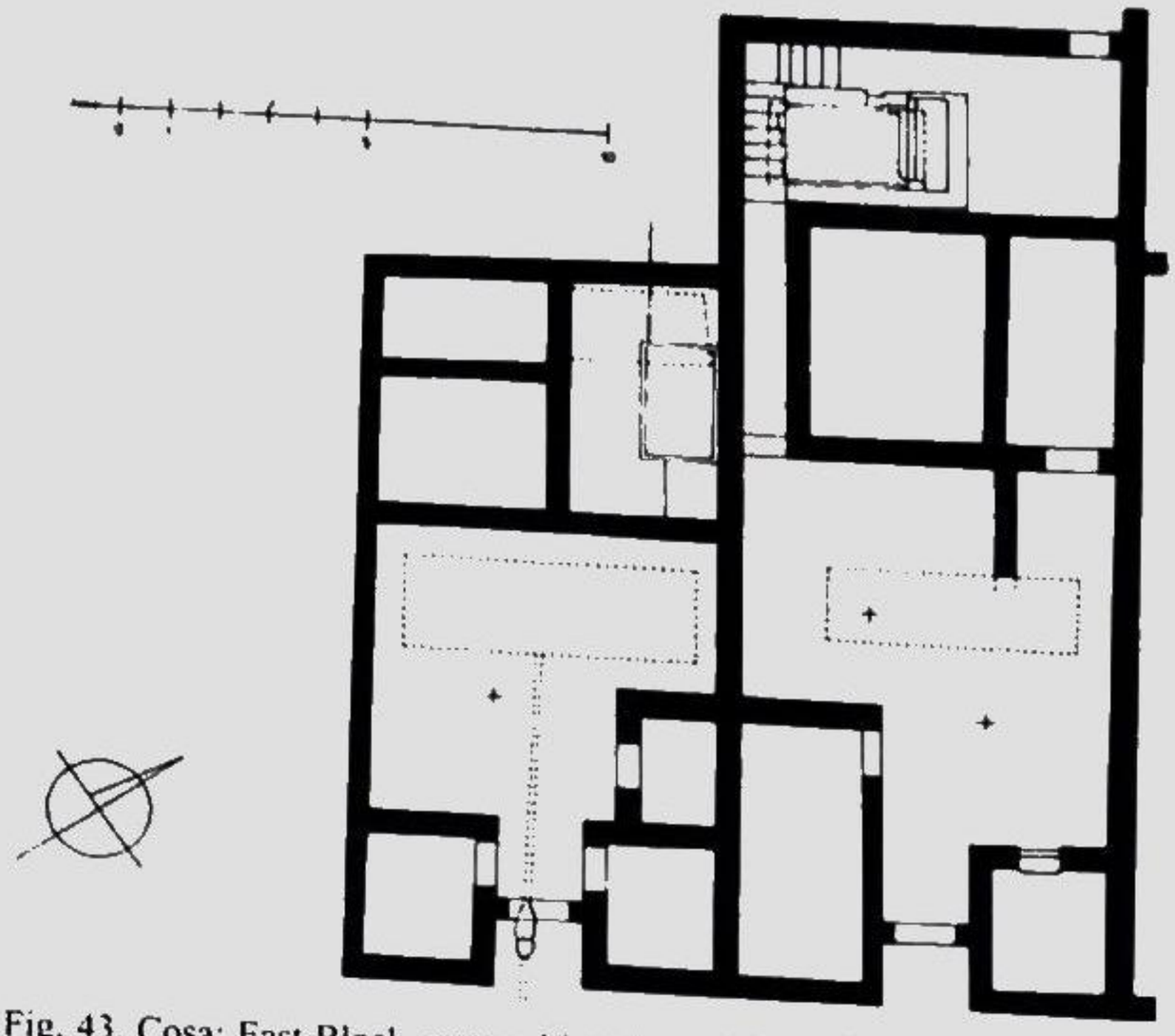


Fig. 43. Cosa: East Block, restored house plans (from Bruno and Scott 1993, 53 fig. 10, reproduced by kind permission of the American Academy in Rome).

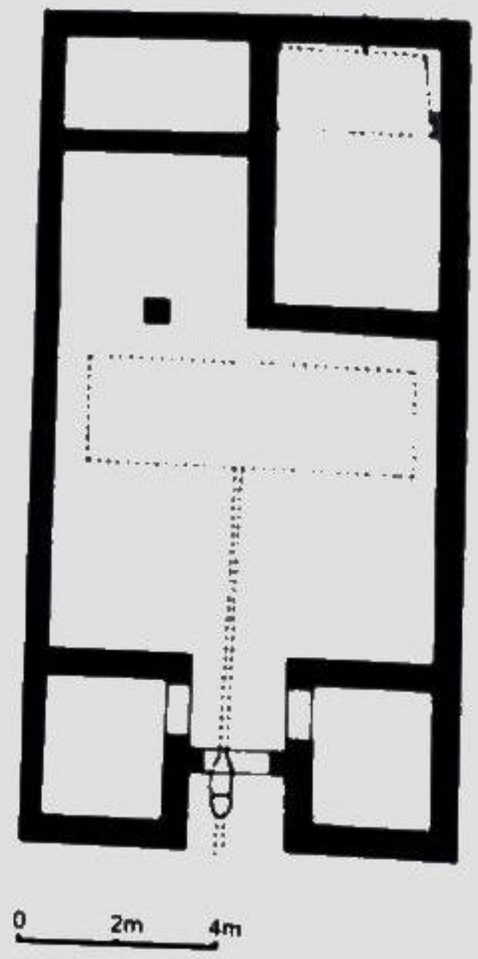


Fig. 44. Cosa: hypothetical original house design with ideal 30 x 60 ft. dimensions (after Bruno and Scott 1993, 53 fig. 10).

tradition of a social separation of men and women.[168] The *tablinum* was also different from the *oikos* inasmuch as it had no wall on the side which opened onto the atrium.

An independent interpretation by Bruno and Scott is that the Cosan houses were based on a uniform design.[169] This seems to be why Brown saw the Cosan houses as "egalitarian" and "economical". Thus it has been suggested that there was some form of accompanying system for their construction which employed a predetermined design. What Bruno and Scott do not mention is that there was some flexibility in the way this design was applied, since no two excavated houses are exactly the same. The street-front rooms in Lots 2 and 3 are asymmetrical, showing how the open space of the courtyard allowed these rooms to be extended for the particular needs of the household. By contrast, some of the street-front rooms belonging to the houses in the East Block are square and symmetrical (fig. 43). One possible interpretation of the original design for the houses at Cosa is given in fig. 44.

In Italy as a whole, the house with the closest resemblance to the plan of the Greek *prostas* house is found at Pompeii. The Casa del Principe di Napoli (Reg. VI, 15.7.8) was a single house in A.D. 79 (fig. 45),[170] but the wall down the centre of the property gives the impression that it was originally two. The right-hand half is nearly identical to the plans of *prostas* houses reconstructed by Hoepfner and Schwandner for Abdera and Piraeus (fig. 34). Similar to the Cosa examples, however, its deep porch takes on the appearance of a *tablinum*. In V. M. Strocka's original publication, the walls comprising this *prostas* house were deemed to be the earliest, of the 2nd c.[171] Although the plan of the earlier house is slightly trapezoidal, the dimensions are *c.*8 x 16.3 m, again proportions of 1 : 2. The presence of an *impluvium* in the courtyard turns the structure into an atrium house with a compluviate roof, which makes it distinctly Roman, but only the *impluvium* creates this effect.

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168 Cf. Wallace-Hadrill 1988, 50.
169 Bruno and Scott 1993, 14-16.
170 Strocka 1984; Wallace-Hadrill 1988, 86-88.
171 Strocka 1984, fig. 44.

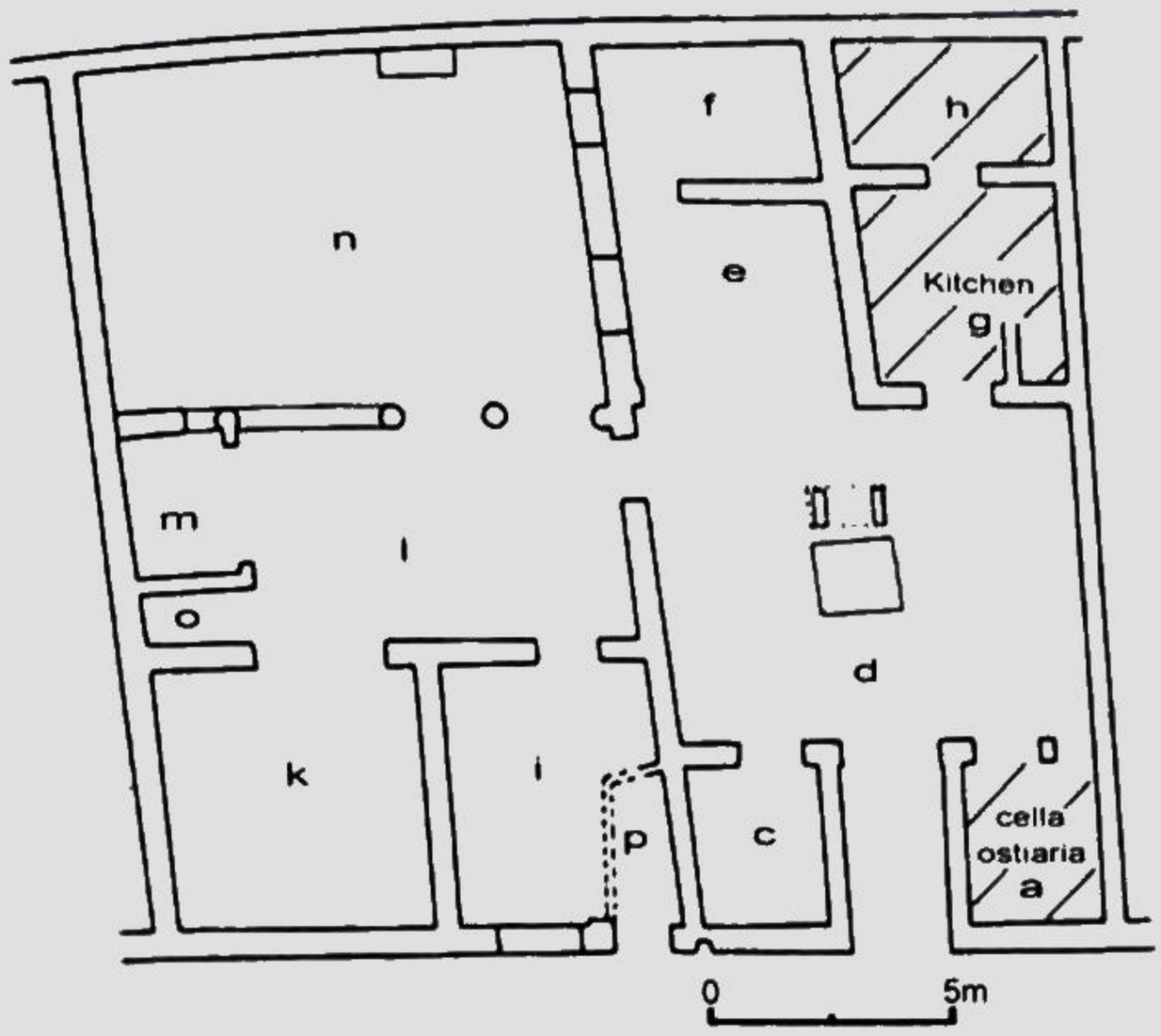
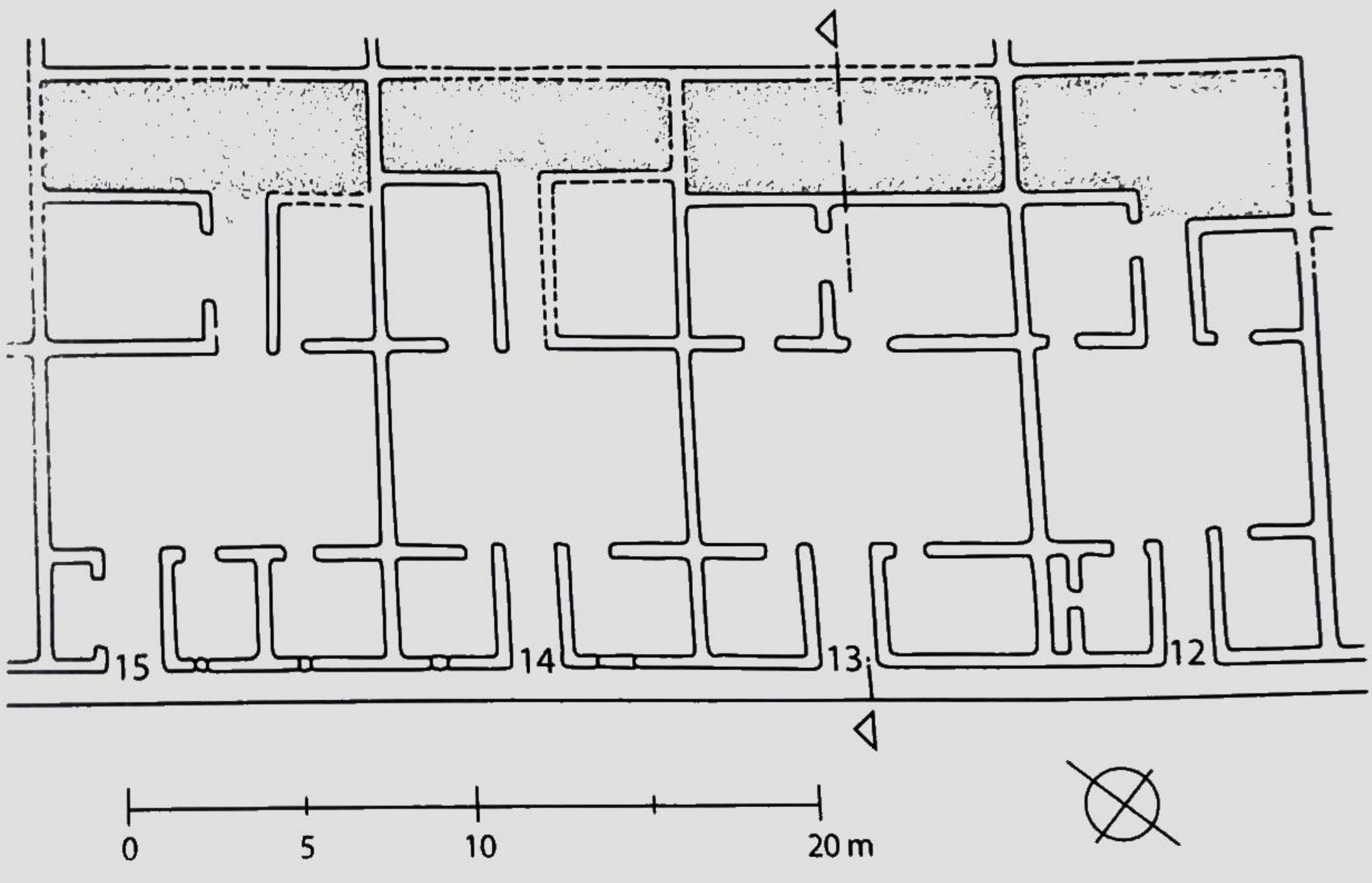


Fig. 45 [left]. Pompeii: Casa del Principe di Napoli (from Wallace-Hadrill 1988, 87 fig. 16; reproduced by kind permission of the British School at Rome).

Fig. 46 [below]. Pompeii: restored house plans, Reg. I.11.12-15 (after Hoffmann 1980, 6 fig. 3b).



Large numbers of similar houses at Pompeii are known generically as "row-houses" (*case a schiera*). A study of four (Reg. I, 2, 12-15) by A. Hoffmann dated them to either the 3rd or 2nd c. B.C.;[172] three have a width of c.9.5 m, the fourth being 8 m wide (fig. 46). Hoffmann was unsure of the depth of the houses, but guessed at 16.5 m. Their entrances are on a narrow lane. If one includes half the width of the lane as part of the building-plot, the length would be 19 m, which would give three of the plots the proportions of 1 : 2.

172 Hoffmann 1980.

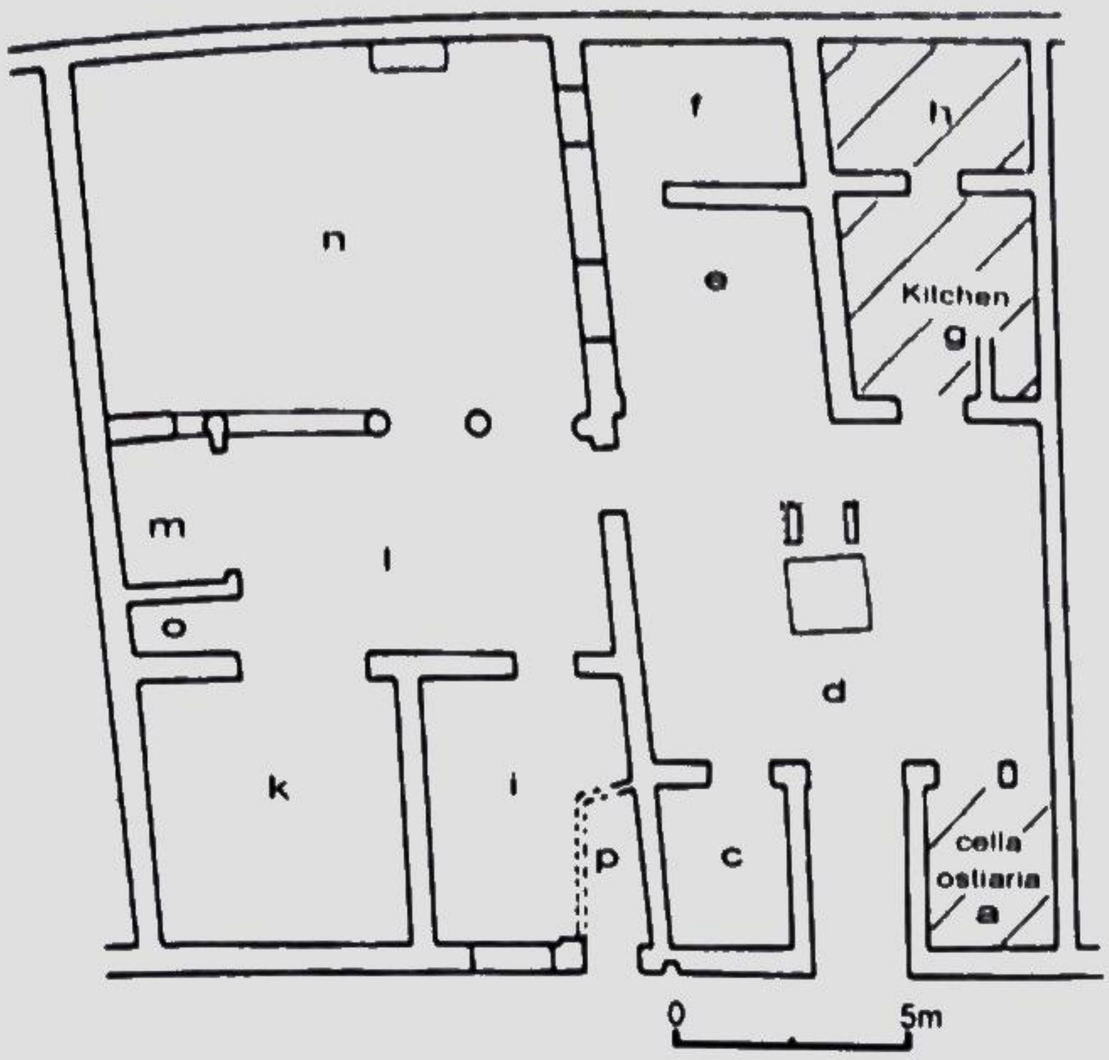
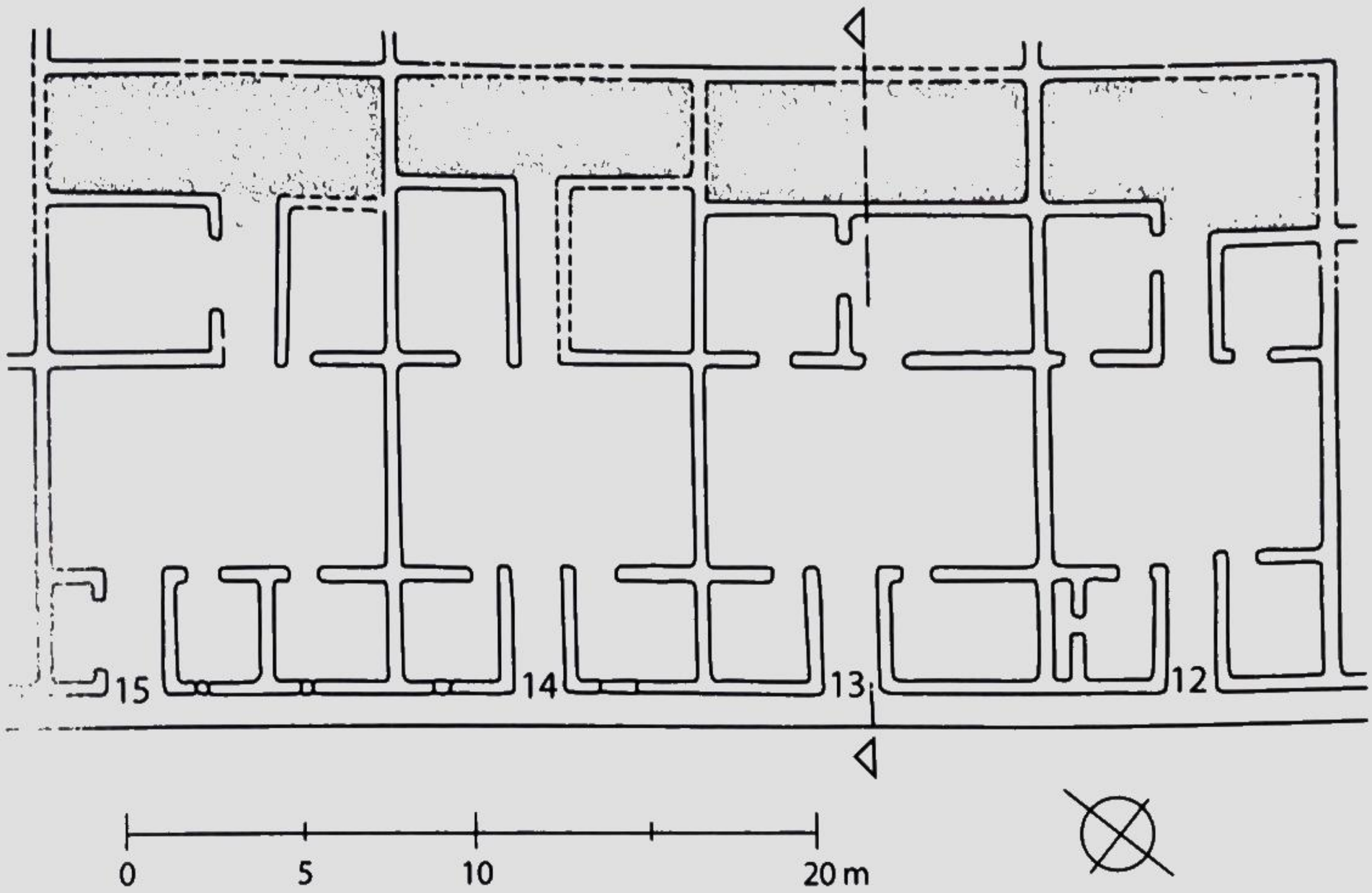


Fig. 45 [left]. Pompeii: Casa del Principe di Napoli (from Wallace-Hadrill 1988, 87 fig. 16; reproduced by kind permission of the British School at Rome).

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172 Hoffmann 1980.

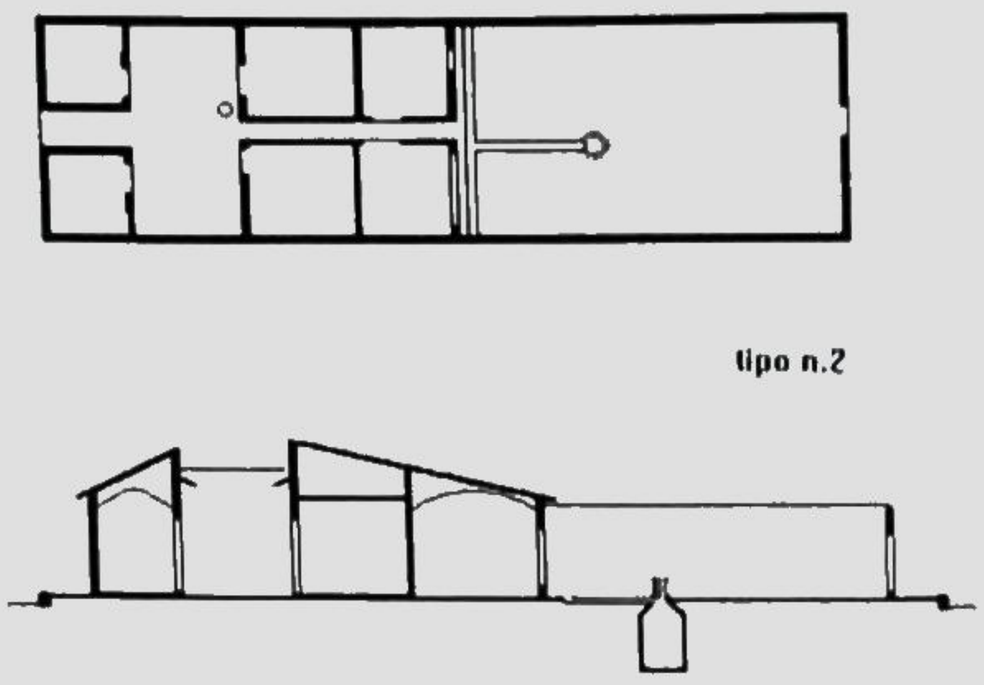


Fig. 47. Pompeii: Type 2 row-house (from Nappo 1997, 104 fig. 11).

The basic *prostas* layout is identifiable in Hoffmann's houses. Note also that the line of the load-bearing walls is the same from house to house. Conversely, the interior walls each have a unique layout. Based on proposals derived from the Greek evidence, these houses show themselves built according to a basic design. No *impluvia* were found within the courtyards. Hoffmann falls back on Vitruvius, suggesting, with some hesitation, that they had testudinate roofs,[173] but from a controlled structural survey and excavation S. C. Nappo disproved this, arguing that these houses had open courtyards in their earliest phase.[174] Nappo investigated a series of row-houses, especially in Regions I and II, which he sees as originally having open courtyards (figs. 47 and 56). The similarity between these houses and those at Cosa is striking, as A. Wallace-Hadrill mentioned.[175] Nappo connects these row-houses with a fairly rapid urbanisation of the intramural area:

> The transformation is visible at three levels. On the large scale, we see a division both of the urban landscape, and, in all probability, of the surrounding territory, into plots on a rectilinear grid. On the medium scale, we see the urban plots or *insulae* subdivided, also on a regular rectilinear basis, into individual properties. On the small scale, we see those individual properties developed on a number of standard patterns that are repeated again and again.[176]

Pompeii's division outside the *Altstadt* into the pattern of *insulae* and streets visible today is now believed to have occurred substantially during the later 4th and 3rd c.[177] Nappo sees the creation of building plots and the beginnings of house construction in Regions I and II as occurring from the end of 3rd c.[178] This tallies well with some results from Region VI.[179] The way in which the blocks were divided leads Nappo to see the individual plots as 8-10 m broad and 32-34 m deep. The rear halves of these plots were originally taken up by gardens, similar to Cosa. This meant that the plots extended across the full width of the blocks. If one includes the pavement width of the streets at the front and back, this again creates proportions of roughly 1 : 4, identical to the house-plus-garden plots of Cosa. Nappo divides the houses into 4 distinct types. All but one has the familiar *prostas* arrangement of double street-front rooms, a corridor in between, a courtyard, and a range of rooms at the back. From his stratigraphic investigation of the houses Nappo drew some relevant conclusions. He sees all of these houses as originally having a single storey, but observes that many received a second storey at later date. Note his conclusions about the way in which these houses were built:

> Analysis of the house plots in this area of the city (*Reg.* II) suggests that in all likelihood each *insula* plot was parcelled up as a whole at a single point in time, and that the parcels were assigned directly to individual holders for development as houses. The subsequent construction of buildings may have happened on an individual basis through each proprietor, though proprietors must always have borne in mind the need for the boundary-wall to serve in common as a party wall; or plots may have been developed in groups — precisely the circumstance under which the characteristics

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173 Ibid. 13.
174 Nappo 1997, 100.
175 Wallace-Hadrill 1997, 231.
176 Nappo 1997, 93.
177 Ibid. 91-96; Nappo 2007, 347-49; Pesando 1997, 183-87; Geertman 2007, 82-90.
178 Nappo 1997, 120.
179 Jones and Robinson 2007, 389-91.

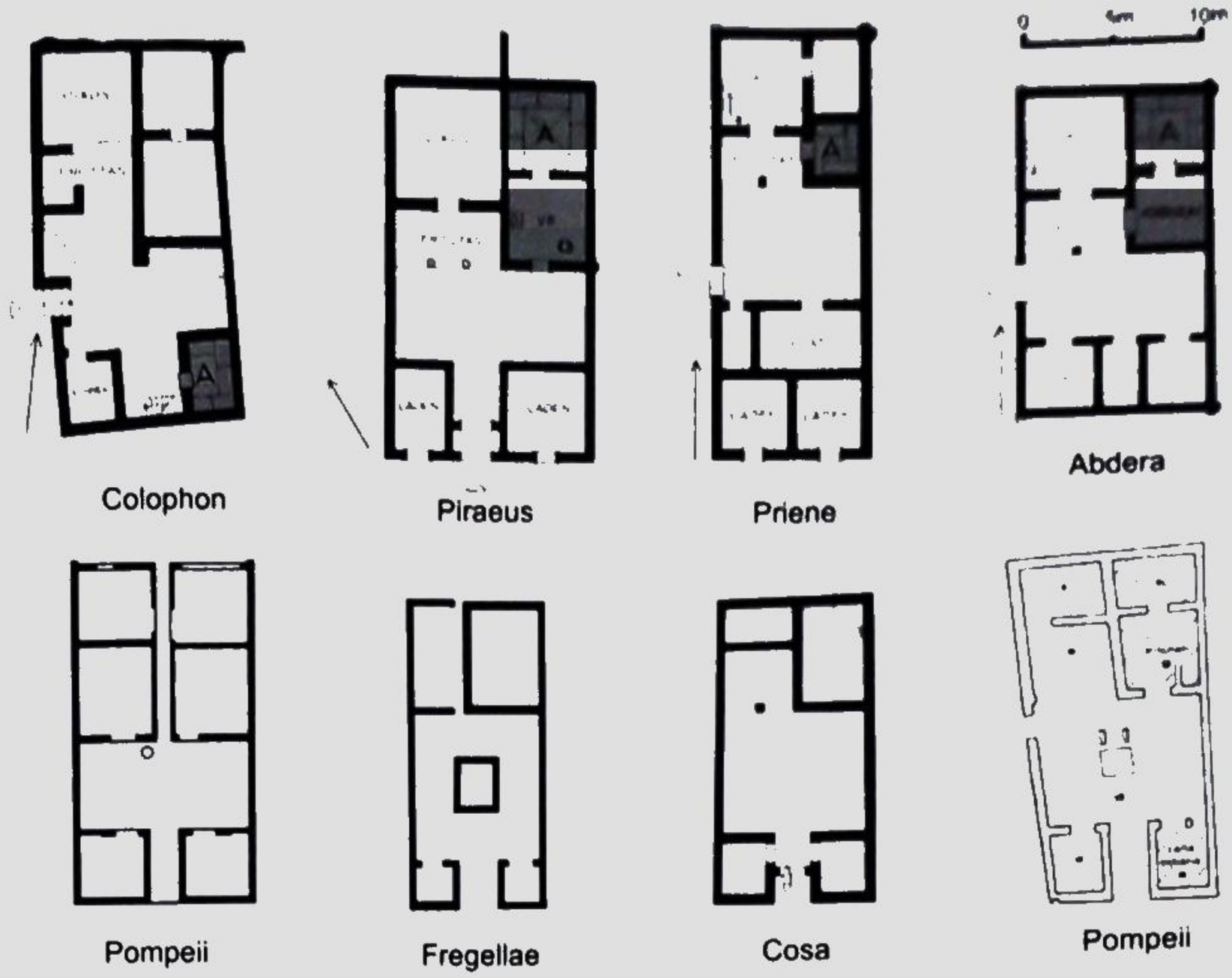


Fig. 48. Comparison of planned Greek and Roman *prostas* houses and row-houses (not to scale) (for credits see figs. 16, 34, 44, 45 and 47).

of the row-house could have arisen. It is more convenient, quicker and more economical to construct houses in series with the same articulation of architectonic volumes than individually.[180]

Or:

The materials employed for construction were homogeneous within individual houses, or within groups of houses evidently constructed together, like I.9.8-10 or I.11.12-14; however, across the quarter as a whole there are considerable variations, as is also true of construction techniques.[181]

And:

Moreover, the development of these houses cannot, in my view, be explained simply as the product of the decisions of individual owners; rather, it appears a planned response to a specific situation, and the realisation of a detailed scheme of urbanisation of the remaining unbuilt areas within the circuit of the walls. In all likelihood these houses will have been constructed within the space of a few years (perhaps a generation) following a predetermined plan of division into building lots granted on the basis of precise assignations.[182]

Faced with similar evidence and working independently from the debate on Greek housing, Roman archaeologists have begun to discuss the same themes. Wallace-Hadrill even likens the Pompeian row-house to the *Typenhäuser* of Priene and Olynthus.[183] At Cosa and Pompeii there are houses in almost exactly the same form as the Greek *prostas* house, even with the columned porch (fig. 48). There is also no great difference in size between the Greek and Roman examples. The dimensional range of the plots on which the above-mentioned Greek *prostas* houses were constructed is 10.15-11.87 x 20.31-20.97 m, whilst that of the Roman examples is 8.23-*c*.10 x 17.3-19 m.

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180 Nappo 1997, 99.
181 Ibid. 117-18.
182 Ibid. 120.
183 Wallace-Hadrill 1997, 222.

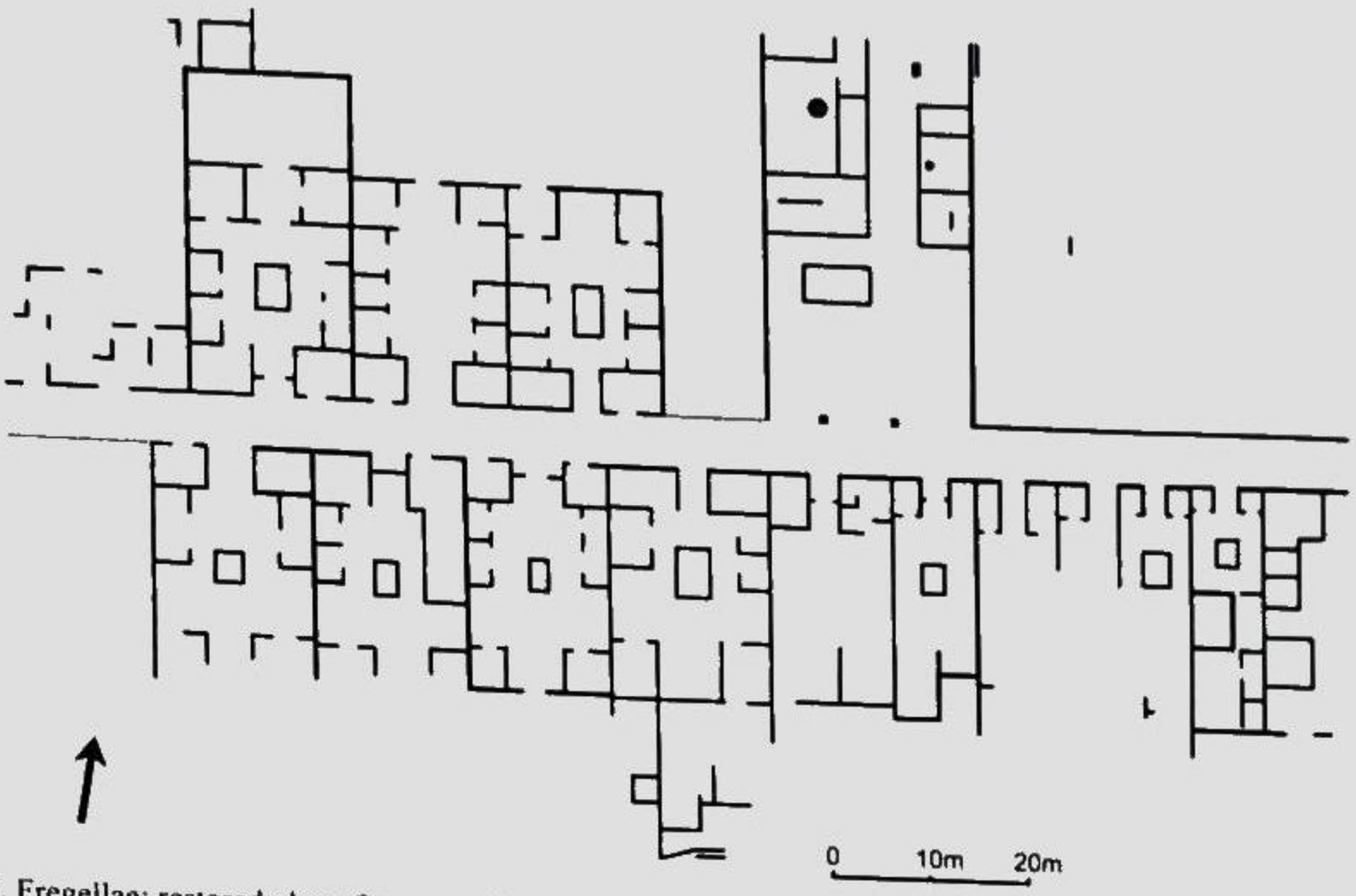


Fig. 49. Fregellae: restored plan of excavated house remains (after Coarelli and Monti 1998, Tav. III, fig. 4).

The similarities seen from house to house have prompted the suggestion that they were constructed according to a limited series of designs. The individuality of the construction methods for each house leads Nappo to think that it was the owners who built their houses. The question has been raised as to whether economic motives were behind these developments. This is much more than the adaptation of a specific Greek house design, but also the Greek system for large-scale house construction based on a predetermined design.

The Romans were very likely responsible for the adaptation of the *prostas* house and its construction system, even though we find it at 'Samnite' Pompeii (discussed below). Outside Pompeii and Herculaneum, these houses are only found in Roman colonial contexts such as Cosa and Fregellae (fig. 49). The argument that this is adapted foreign architecture is given further weight by the sudden appearance of this type on the peninsula. Archaic Roman and Etruscan housing reveals no trace of this house form, or ancestor thereof, prior to the Middle Republic, nor has it been found in western Greek contexts in the peninsula. According to E. De Albentiis, the Pompeian row-house type was introduced in the Middle Republican period.[184] The sudden appearance of this form supports the idea that it was an adopted foreign design. This would shed an entirely new light on the development of Roman domestic architecture during the period.[185] The original Greek form was rapidly transformed by existing traditions (see further pp. 131-32).

There is no reference in Vitruvius to such a dramatic development in the history of Roman domestic architecture, yet he does not explicitly refer to *any* Greek influence on the development of the Roman house. He speaks of peristyles as being part of the atrium house[186] and also part of the Greek house,[187] and modern architectural historians and archaeologists have fostered the view that the Romans adopted the peristyle from the Greeks. But Vitruvius was not a historian: he drew chiefly on practical experience.[188] Although he had access to the treatises of famous Greek

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184 De Albentiis 1990, 92.

185 The presence of this system in Roman contexts provides a further challenge to the theory of Hoepfner and Schwandner that the system was a specific reflection of Athenian democracy and *isonomia*.

186 Vitr. 6.3.7.

187 Vitr. 6.7.1-3.

188 Mansuelli 1963b, 108.

architects, there is little sign that he drew on information found in Roman archives (though a Roman adoption of Greek house design and construction methodology may well not have been officially recorded). Further, he hardly concerns himself with the housing of lower property classes. The *De Architectura* was written when Rome was undergoing radical political changes and the work is a product of that particular age.[189] His failure to mention the *prostas* adoption cannot be taken as evidence that it did not occur. In short, the Romans adapted the peristyle for their own needs,[190] and this seems to have been the case with the earlier *prostas* house too.

Towards an archaeological identification of property classes in urban contexts

Elsewhere I have argued that within the original plan of Cosa at least two *insulae* adjacent to the forum were set aside for the housing of the élite.[191] Because these *insulae* were larger than those found in the rest of the town, it appears they were planned to accommodate houses of a greater size. Literary sources reveal that the size of the holdings allocated to colonists in the *territorium* was based upon property class (*pedes, centurio,* or *eques*) (see p. 144). E. Fentress has rightly argued that houses for the different property classes can be identified at Cosa based on the differentiated sizes of the plots.[192] The houses around the existing forum are better known and two of them have been excavated. The four houses opposite the comitium all appear to have been set on plots of 60 x 116 ft.[193] If we imagine a *c.*3-ft addition to these lots to take account of the pavement in front, these plots were probably 60 x 120 ft (1 : 2) with a surface area of 7,200 ft^2. The *prostas*-like houses from Cosa, discussed above, had plots of 30 x 120 ft, with a surface area of 3,600 ft^2, which is half that of the atrium houses opposite the comitium. All but one of the excavated houses can be shown to have been placed on one of three different sizes of plot, with an intended surface of 1,800, 3,600 or 7,200 ft^2. This is sufficient to hypothesise that the allotment system by property class attested for agricultural land was also being employed in the assignment of house plots inside the walls. Indeed, it has been proposed that the land allocation in the *Ager Cosanus* was either 8, 16 or 32 *iugera,* according to property class.[194]

A similar arrangement can possibly be interpreted at Fregellae (fig. 49). The situation regarding the house-plots is more complex because many of the houses shown in fig. 49 date from the early 2nd c.,[195] by which time property boundaries may have changed. The plan appears to reflect that there were slight variations in house-plot widths amongst houses of the same type. With one exception, however, it does not reveal their full lengths. At the far E end of the S side of the *decumanus,* smaller houses with the same basic *prostas* layout are evident. The schematic character of the plan permits only rough calculations of plot sizes, but the larger atrium houses to the west seem to be between 2 and 2.2 times the width of the *prostas*-derived properties to the east. We can presume that the rear limits of both the larger and smaller properties were the same, meaning that the surface areas of the smaller houses were roughly half that of the larger ones.

In the search for the different property-classes within residential areas of colonies, the dimensions of the original house-plots in relation to one another seem to be the key. One needs to take into account the minor variations amongst plot sizes in individual settlements, such as were found at Cosa, but, when the plot sizes are compared, the dimensions intended can be ascertained from the combined data. As to the cause of these intra-site discrepancies, perhaps the owners/builders themselves were responsible for the subdivision of residential *insulae*. Determining precise

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189 Vitr. 6.5.1-2; Coarelli 1989a, 178-87.
190 McKay 1975, 34-35.
191 Sewell 2005, 101-2.
192 Fentress 2000a, 15; ead. *et al.* 2003, 23-25.
193 A 60-ft width for standard atrium house-plots is not confined to Cosa but can also be found at Aquileia (Ortalli 2001, 32), Norba and Pompeii (Carfora, Ferrante and Quilici Gigli 2008, 215).
194 Celuzza 2002a, 108.
195 Coarelli 1991, 180-81; 1998a, 64; Pesando 1997, 277-80.

distances over irregular terrain may have been a challenge for the inexperienced. In settlements occupied for longer periods the identification of original plot-sizes becomes difficult because continued building was often accompanied by boundary changes, as seen at Pompeii and Fregellae; the same seems to be true for Paestum. At Alba Fucens, a late-Republican atrium house was excavated and published[196] but there are insufficient data for an analysis.[197]

Thus the clearest evidence for this phenomenon is provided by Cosa and Fregellae, both largely abandoned during the Republic. The archaeology of both reveals at least two diverse house-plot sizes within the residential *insulae*, the smaller size comprising half the surface area of the larger one. This differentiation is almost certainly linked to the property class of the house owner. Here in the Roman system of mass house construction is an element not present in Greek contexts: the differentiation of plot size according to property class. For the lower-classes we find houses that are based exclusively on the Greek *prostas* house. The Pompeian row-house provides additional evidence. I turn next to the types of houses which filled the larger plots.

The origin of the atrium house

The tendency in most modern works is to define any house with an *impluvium* as an atrium house. Here, however, we are concerned only with the form of atrium house that dominates at Fregellae (fig. 49). It is also typified by the House of Diana at Cosa (fig. 50) and the Casa del Chirurgo at Pompeii, all of them close to Vitruvius' description.[198] Using the example of the House of Diana, it is possible to see many similarities between the atrium house and the *prostas* house. The plots on which both are found have proportions close to 1 : 2. The basic tripartite division of the space is the same: street-front rooms, courtyard, rear range of rooms. The two front rooms on either side of the corridor are a fundamental characteristic of both types. The House of Diana is four times the size of the smaller houses at Cosa. With the corresponding increase in the size of the courtyard, a great deal of space becomes available which was utilised in the atrium house for side rooms and the *alae*. The rear range in both the atrium and *prostas* house is arranged hierarchically, some spaces being accessed only indirectly. The other affinity both types share is that their basic plans are found repeated in multiple settlements.

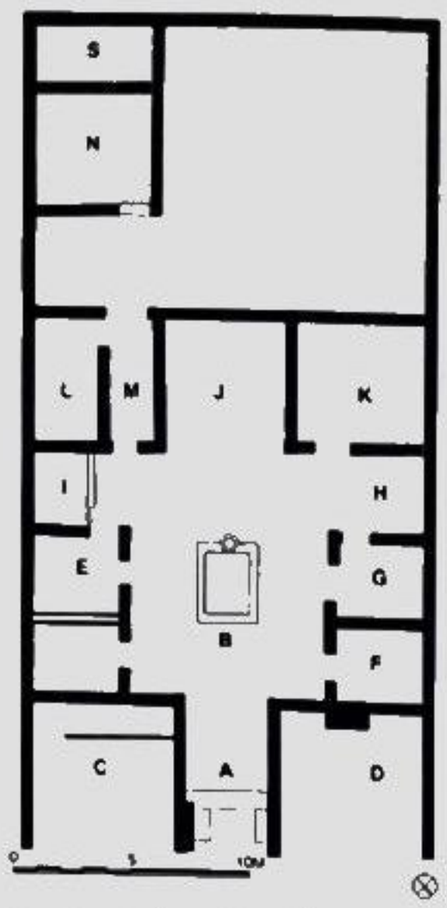


Fig. 50. Cosa: the House of Diana on the forum (from Fentress *et al.* 2003, 16 fig. 5, reproduced by kind permission of the American Academy in Rome).

Indeed, the likeness between *prostas* and atrium houses has been noticed before. J. W. Graham presented a systematic comparison of Roman and Greek houses,[199] and his suspicions that this similarity might be more than coincidence emerged:

> Whatever may be the merits of either derivation, the resemblance, whether accidental or not, between the atrium-*tablinum* arrangement and *oecus-prostas* is apparent and, as we shall see, lies at the root of much of the modern confusion regarding the later history and relationship of the two types.[200]

More recently, Wallace-Hadrill has highlighted the likeness between the row-houses of Pompeii and the atrium house.[201] He considers this resemblance so great that he argues that the typology of the atrium house should be modified to incorporate the Pompeian row-house, referring to the "family resemblance" between them. Because the row-house appears to have been based on a

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196 Balty 1985; Pesando 1997, 291-93.
197 Cf. Mertens 1969a, 82-84.
198 Vitr. 6.3.1-6.
199 Graham 1966.
200 Ibid. 7.
201 Wallace-Hadrill 1997, 221-23.

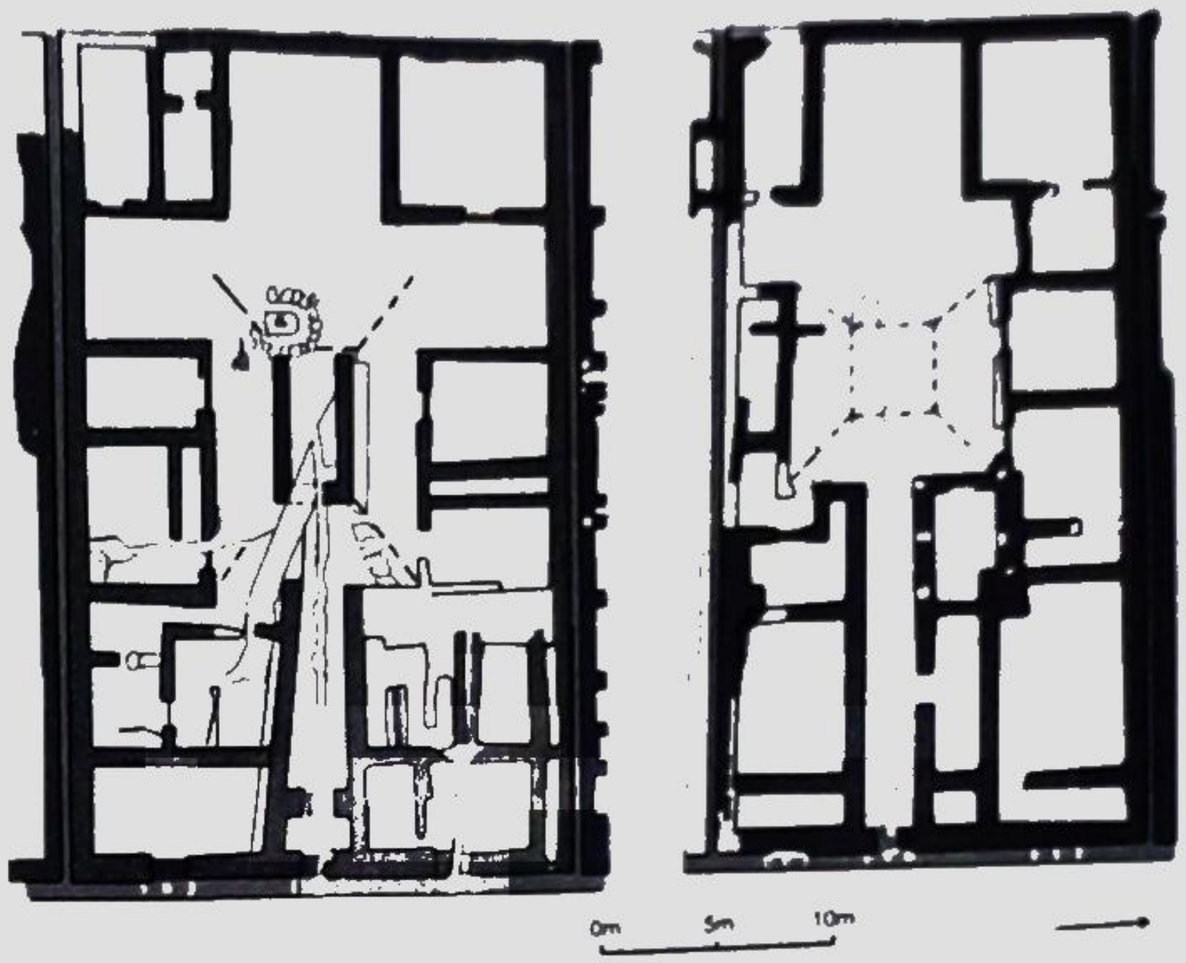


Fig. 51. Marzabotto: house foundations with features similar to *tablina*, *alae* and *impluvia* (after Colonna 1986, 517 Tav. XX).

Greek design, this would create a place for the atrium house on the *prostas* 'family tree'. This "family resemblance" can best be seen from the excavated dwellings at Fregellae (fig. 49). On the S side of the street towards the east are houses with *prostas*-like layouts, with double street-front rooms with a corridor in between, a courtyard, and a range of rooms divided longitudinally. Towards the west, the houses suddenly change to the classic atrium layout, each with a central *tablinum* which in each case is associated with *alae* and side-rooms. At Fregellae the sharp division between atrium houses on the left and *prostas*-like houses to the right suggests specific zoning according to property class (see p. 142).

Some have seen the atrium house as the result of a long evolutionary development from archaic Greek and even Mycenaean beginnings,[202] but this model has recently been refuted.[203] Most recent studies into the origins of the atrium house emphasise the Etruscan origins of this most Roman of dwellings,[204] employing the archaeological data provided by Etruscan settlements of the 6th and 5th c., of which the most famous is the colony of Marzabotto. The excavations provide numerous plans of (poorly preserved) archaic houses. The Etruscan colony appears to owe much to Greek planning in terms of the orthogonal layout of streets and *insulae*, but within the blocks there is considerable variety in the plans of houses built from the late 6th c. onwards.[205] Two houses (IV.i.2 and IV.i.6) have aroused particular interest because of the similarities they share with the traditional elements of the atrium house (fig. 51): an apparent *tablinum* as well as *alae*, and a fully-fledged *impluvium* in the centre of a courtyard, with presumably a compluviate roof.[206] At a site in the modern town of Prato (central Tuscany), a similar house from the same period has been found in a settlement that might have covered *c.*12 ha.[207] Its form is even more coherent with the later atrium design than those of Marzabotto, including two rectangular street-front rooms either side of an entrance corridor, a characteristic of the early Pompeian atrium houses. This layout is so specific to the later atrium house that it is almost beyond question that there was some link between Etruscan and Roman domestic architecture.

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202 Gardner and Jevons 1898, 32; Harsh 1935, 19; cf. De Albentiis 1990, 71-72.
203 Carafa 2000.
204 Mansuelli 1963a; McKay 1975, 11-29; Zaccaria Ruggiu 1995, 387; Carafa 2000; Carandini and Carafa 2000.
205 Lippolis 2005, 146.
206 Brizio 1891, cols. 249-442; Mansuelli 1963a, 48, 50 and 56-57; 1963b, 104; Graham 1966, 9; McKay 1975, 19-20; Carafa 2000, 270.
207 G. Poggesi in Poggesi *et al.* 2005, 267-75.

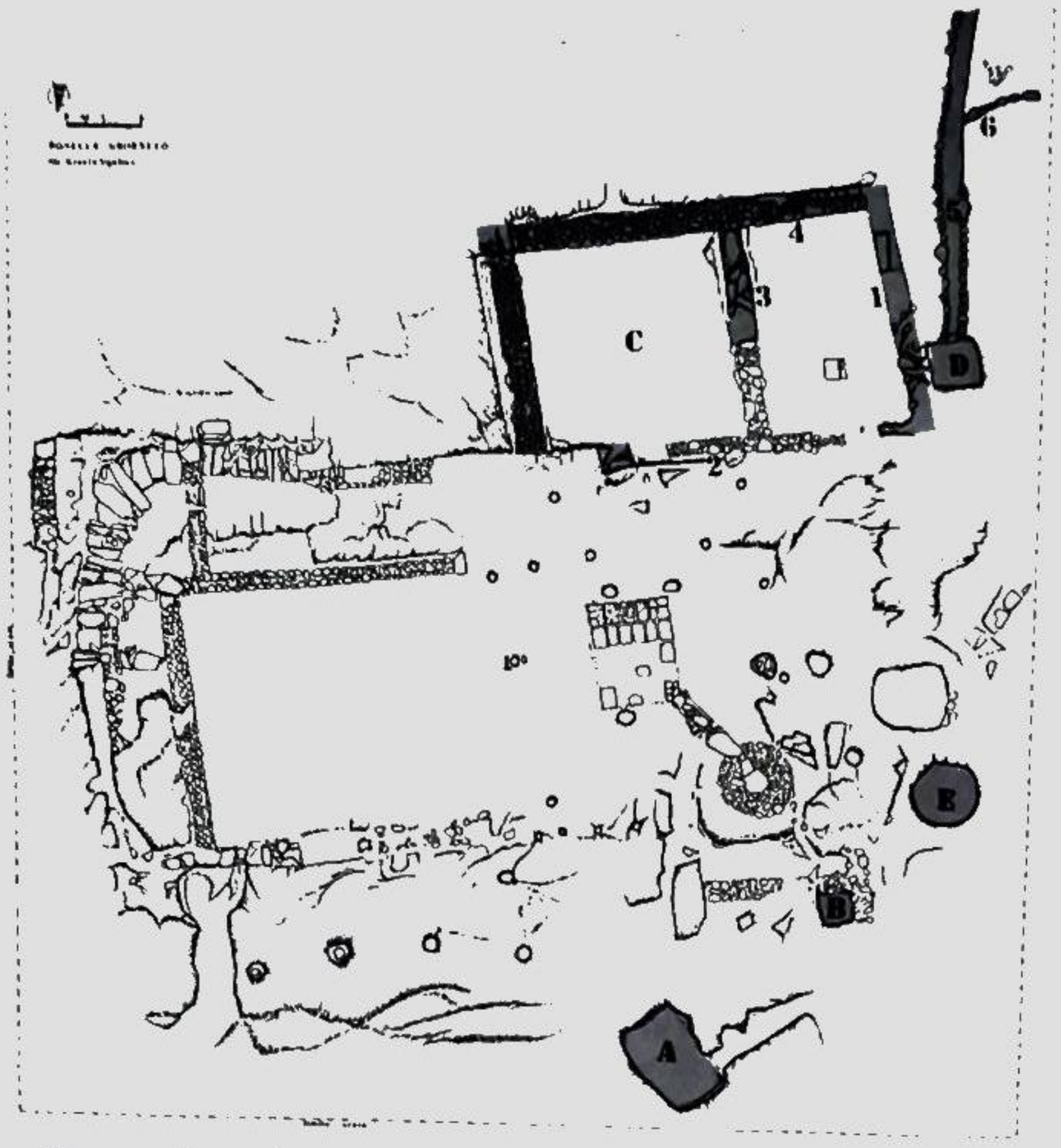


Fig. 52. Roselle: a 6th-c. house with features which appear to represent a *tablinum* and an *impluvium* (from Donati 1994, fig. 2).

Because the atrium came to be associated with the dominant classes, some doubt has been expressed about the connection between the Etruscan examples and the Roman *domus*: we have little information on the social status of the proprietors of the Etruscan houses.[208] Further, the architecture of numerous other houses at Marzabotto has no parallel with later Roman dwellings. Other Etruscan settlements too have revealed houses with similar rudimentary elements of the later atrium house, such as at Roselle (fig. 52) and Regae.[209] Etruscan funerary architecture has been used to support these ideas:[210] it is argued that the layout of tombs intentionally reflected that of the house. Literary evidence is also cited to support the hypothesis of Etruscan origins: Vitruvius speaks about the Tuscan atrium,[211] although he does not say that the atrium originated in Etruria, but Varro specifically does,[212] although his etymology has been questioned.[213]

A major problem is archaic housing in Rome: the excavated remains are so scant that it is not possible to obtain a picture of how housing appeared prior to the Late Republic. This hinders our understanding of how the houses of Rome influenced domestic architecture in the colonies. The only prolonged excavation with these questions incorporated into the research agenda were those of A. Carandini on the Palatine, but they delivered only fragmentary foundations of four

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208 De Albentiis 1990, 68-72; Gros 2001, 33-36. The nature of the finds in the massive house at Prato-Gonfienti leads the excavator to assume its owners were of high status: G. Poggesi in Poggesi *et al*. 2005, 272.
209 Tortorici 1981; Colonna 1986; Donati 1994; Carafa 2000, 269.
210 Boëthius 1934, 160-62; 1970, 63-76; Mansuelli 1963b, 104; McKay 1975, 23-24; Carafa 2000, 273.
211 Vitr. 6.3.1.
212 Varro, *LL* 6.161.
213 De Albentiis 1990, 85.

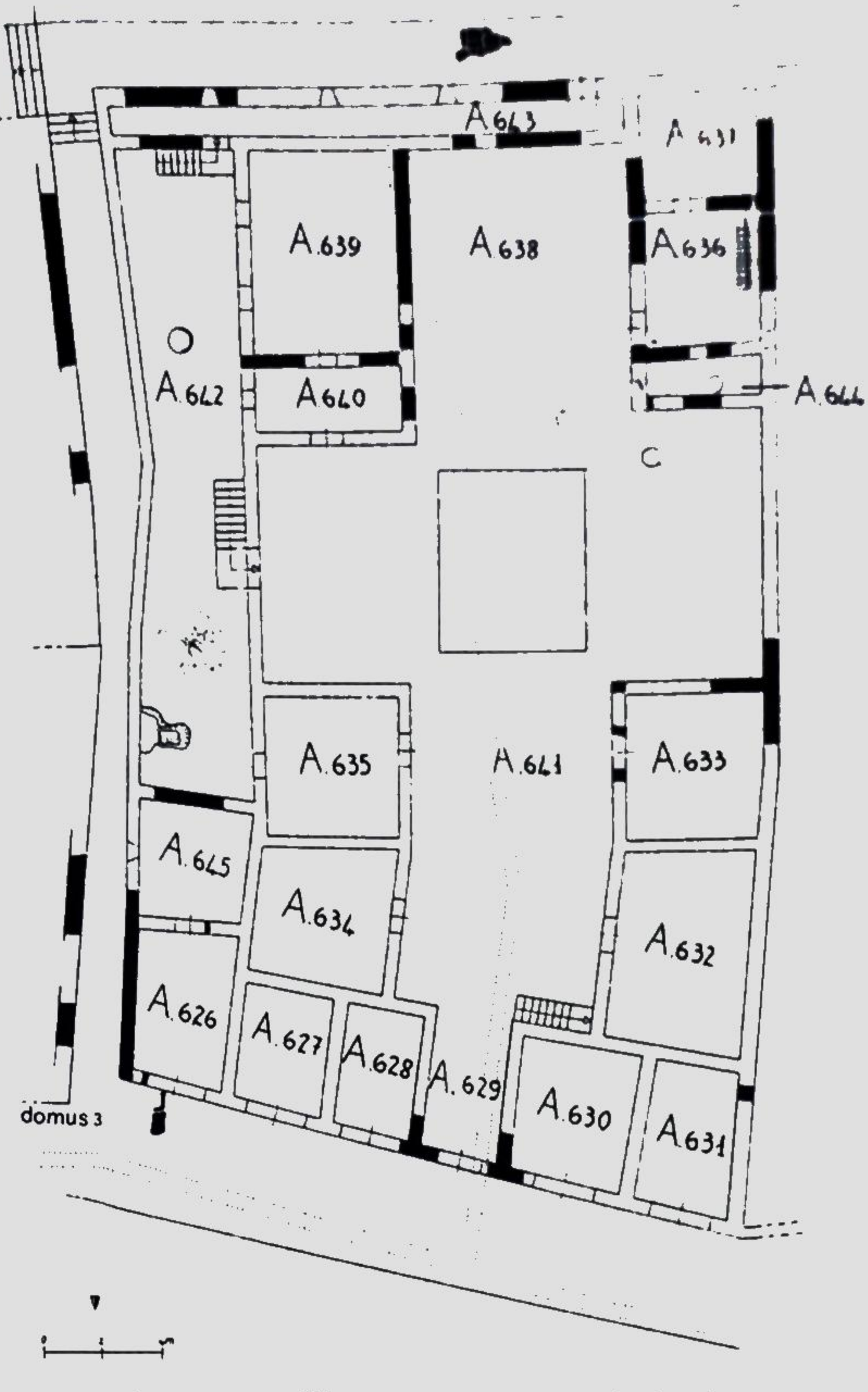


Fig. 53. Rome: *Domus* 3 on the Palatine, with surviving foundations in black (from Carandini and Carafa 2000, fig. 168, reproduced by kind permission of the Ministero per i Beni e le Attività Culturali–Soprintendenza Speciale per i Beni Archeologici di Roma).

structures, considered to be houses of the later 6th c.[214] The house plans had to be largely reconstructed and they remain highly controversial.[215]

The house with the greatest extent of surviving foundations was Domus 3 (fig. 53). From the scanty remains — if indeed the disconnected sections of foundations belong to a single structure — it is perhaps not going too far to see it as having had a *tablinum*. The excavators also found what was believed to be an *impluvium* (length 6 m), which would not be out of place in what is known

214 Carandini 1990b, 163.

215 Cf. Moormann 2001; Wiseman 2008, 271-92.

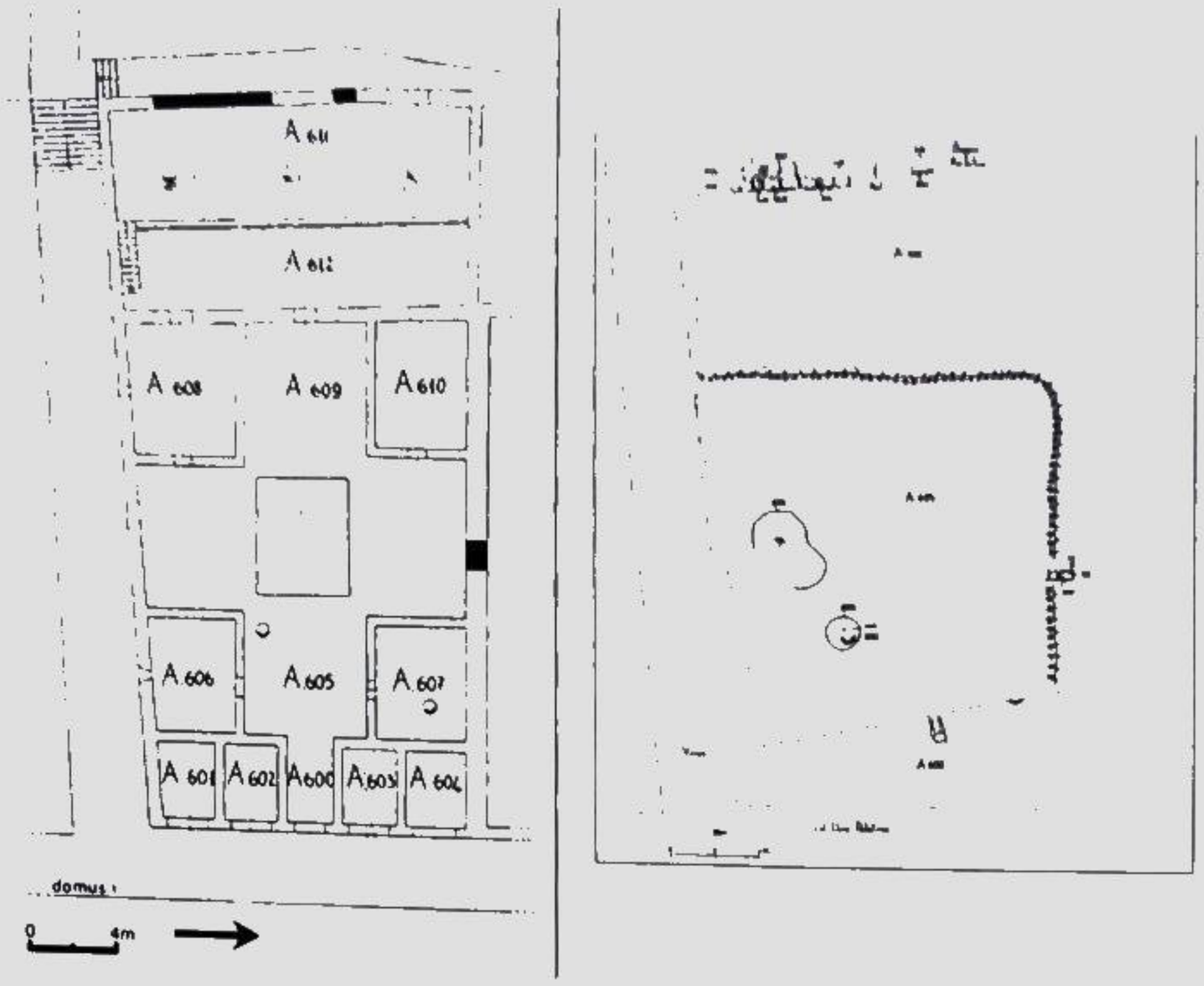


Fig. 54. Rome: *Domus* I on the Palatine: reconstruction (left) and actual state of excavated remains (right) (from Carandini and Carafa 2000, 215 fig. 166; 217 fig. 170, reproduced by kind permission of the Ministero per i Beni e le Attività Culturali–Soprintendenza Speciale per i Beni Archeologici di Roma).

of contemporary Etruscan structures.[216] If so, it would provide the missing link between archaic Etruscan and Roman domestic architecture. The parallel positioning of the *impluvium* and the *alae* in the Palatine examples, however, is anomalous with both the architecture at Marzabotto (fig. 51) and the standard atrium plan (fig. 50). While the houses may have had something like the schema reconstructed by the excavators, the degree of confidence lying behind the reconstructions is not borne out by the archaeological data. This is especially the case with the regularity of the restored house plans. Carandini admits that the reconstructions are based partially on the Marzabotto examples and what is known of the mid-Republican *domus*.[217] The regularity must come from the latter, since there is no evidence for such uniform house plans in any Greek or Roman settlement until at least 150 years later. The overconfidence of the reconstruction can be seen best in *Domus* 1. Figure 54 shows the restored plan along with the sum total of the excavated remains deemed to belong to this structure, revealing how little was actually found and that the dimensions of the reconstruction differ from those of the remains.

The archaeological data from Rome does not permit a confident reconstruction of archaic domestic architecture similar to that found in Etruscan contexts. Yet based on the data from Etruria, one can state confidently that the atrium house possessed features that had developed by the archaic period. These were:

- an axially central *tablinum* at the back of the house which opened to the atrium;
- *alae* on either side of the atrium;
- the *impluvium*;
- the compluviate roof.

This tallies with what we have seen in the Greek evidence: there is no trace of these 4 elements in the original *prostas* house or any other Greek dwelling from our period. The atrium, *alae* and *tablinum* are the parts of the house most associated with the activities of the Roman élite. It is these areas where symbols of the power of the *paterfamilias* were displayed and where *clientes* were received for the *salutatio*.[218] There is little or no evidence that similar activities were occurring in

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216 Carandini and Carafa 2000, 246.
217 Carandini 1990a, 98.
218 Cf. Coarelli 1985, 178-87; Torelli 1999a, 73-76. See pp. 150-55.

contemporary Greek houses.[219] Thus, while incorporating original Etruscan elements, the design of the atrium house seems to reflect a domestic setting for activities specific to the *patronus*. The Etruscan credentials of the main elements of the atrium house are difficult to question, even though it shares a "family resemblance" with the *prostas* house.

The crystallisation of a new system for house construction

The reason for the similarity between the atrium house and the row-house is, I believe, because they were developed together for a system of colonial house construction. Several forms of evidence indicate this. First, however, the essential question is how and why the design of the atrium house became so concretely set? A likely answer is: when the plan of the atrium house came to be recorded in an abstract form *as a design*. The similarity seen in atrium houses built in various settlements at different times is an indication that this design was transmitted from place to place, meaning that it had been recorded in some abstract form. This conclusion is strengthened by the work of K. Peterse and J. de Waele,[220] whose detailed comparison of the dimensions of three early Pompeian atrium houses led them to conclude that they were based on a single original design. In his study on the transmission of Greek architectural design, Coulton concluded that such designs would have taken the form of written instructions (see pp. 100-1). Of the houses reviewed in this chapter, the atrium house is the only type for which an abstract design has survived to modern times, because this is what Vitruvius described, albeit in its Augustan form.[221] Although it is generically referred to as Vitruvius' "description of the atrium house", he is actually providing instructions on how to build one.[222] I suggest that such instructions had been employed for the construction of the atrium house since its inception; Vitruvius simply recorded the variety of schemes in use in his day. Two observations can be made about his instructions. Firstly, instead of making specific measurements explicit, Vitruvius uses a series of set proportions, allowing the design to be applied on a variety of plot sizes. Secondly, the instructions are incomplete: Vitruvius describes only the most important rooms.[223] Although other rooms are mentioned, such as the *triclinium*, which may have been an element of the atrium's side-rooms, he gives no overall proportions for, or numbers of, the side-rooms that should be constructed. It is perhaps relevant here that in the atrium houses at Fregellae (fig. 29) more variety can be seen in the solutions to the side-rooms' layouts than in any other element of these dwellings. This should be contrasted with Norba in Latium, which is reported to have become a Latin colony in the early 5th c.[224] Recently, two neighbouring atrium houses, apparently built during the 2nd c., have been brought to light.[225] Although the plan of one (*domus* 2) did not survive in its entirety, the articulation of the extant foundations is the same in both, even those of the side-rooms.[226] It seems as though a single, relatively detailed design was adhered to by the builders of these adjacent dwellings; further, the excavators comment upon the homogeneity of the construction techniques and materials.[227] Such an apparent adherence to comprehensive building instructions is exceptional. The physical remains of dwellings built according to a design, both Greek and Roman, suggest that the design was usually limited to the houses' main elements. The incompleteness of Vitruvius' instructions indicates that this could also apply to the atrium house. If the atrium design was recorded and disseminated, this offers an explanation as to why we find so much similarity in the plan over such a long period.

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219 Millett 1989; 1998, 206-11; cf. Eilers 2002, 17-18.
220 Peterse and de Waele 2005.
221 Vitr. 6.3.1-6.
222 Vitr. 6.2.5, 6.5.1 and 6.8.7.
223 Cf. Tamm 1963, 98-99.
224 Livy 2.34.6.
225 Carfora, Ferrante and Quilici Gigli 2008.
226 Ibid. 246.
227 Ibid. 249.

At some point during the Middle Republic, then, there appear to have been two major developments in Roman domestic architecture: the design of the Greek *prostas* house was adapted by the Romans for lower-class housing, and the design of the atrium house became crystallised by being recorded as a set of building instructions. This appears to mark the beginning of a standardisation of Roman domestic architecture, a watershed in the development of Roman urbanism. It also suggests that these two developments occurred around the same time. The classic atrium design and the *prostas*-like house appear together in the contexts of Cosa, Pompeii, Fregellae and at Herculaneum, where *prostas* adaptations, such as the Casa Sannitica (V.1), are found. In each case, the atrium house is reserved for larger plots and row-houses for smaller ones. It seems that the Romans created a *system* for their colonial housing needs involving the use of a relatively set series of designs by property class. Such a differentiation of house design according to property class may have been alluded to by Vitruvius:

> alter gradus erit distributionis, cum ad usum patrum familiarum et ad pecuniae copiam aut ad eloquentiae dignitatem aedificia apte disponentur.
>
> The other level of allocation obtains when buildings are designed differently according to the habits of the heads of families, or the amount of money available, or to suit their prestige as public speakers.[228]

Such a system had to allow for houses of differing sizes in close proximity to one another on regularly sized blocks. Part of the solution was to give all the houses similar proportions: the row-houses and the standard atrium house are often *c.*1 : 2. Its rectangular form may have made the *prostas* design attractive for integration into this system. With so little of the dwelling visible from the street, the method for identifying the property class of the owner from the exterior was related to the width of the house. At Cosa the length of the atrium houses opposite the comitium corresponds to the width of most of the town's *insulae*, meaning that such dwellings could potentially be built on normal housing blocks. The shorter row-houses were situated on plots half as wide but of the same length, the remaining space being taken up with a garden. Gardens, uncommon in Greek urban contexts, may have been an essential element of the system. A variety of house lengths could be accommodated on a single *insula* if the remaining space behind the shorter dwellings was made up by a garden. Further evidence for this phenomenon will be presented in the next chapter where I examine how the Latin colonies were planned under this system. There was, however, more than one house design employed for the row-houses of Pompeii. This may be related to the piecemeal fashion in which Pompeii was urbanised, but might also reflect a flexibility allowed in carrying out the construction.

From a historical perspective, the most likely time for the inter-related events of the introduction of the *prostas* house and setting the atrium design is the later 4th c., when Rome embarked on her first programme of urbanization. It is only in these new, or newly urbanised, settlements that we find articulated rows of *prostas*-like houses — the very contexts in which we find them in Greek settlements. It is the same period when other Greek ideas were being adopted in town planning and fortification technology (see pp. 47-53). It is during the earlier phases of colonisation that we might expect the Romans to have sought an existing solution to a problem new to them: how to build housing for an entire town. An economic and quick method of house construction would have been very advantageous. Like the Greeks, the Romans needed to minimise the risks of civil unrest during the foundation process. If we suppose the *prostas* house to be the result of Greek experimentation in urban house design, this may have influenced the Romans' choice of it. The *prostas* house appears to have been created with flexibility in mind, which may have made it attractive to the architects of Rome's new colonies built in regions of Italy with differing economies and ethnic compositions.

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228 Vitr. 1.2.9 (transl. I. D. Rowland).

The simple logic of this conclusion is reason enough to be wary of it, especially as it is not currently supported by archaeological data. First, there is no indisputable testimony for a 4th-c. atrium house or row-house. The lower-class houses at Cosa were dated to the late 3rd c. at the earliest; similar row-houses at Fregellae await publication. The oldest atrium house (fig. 55) at Fregellae was dated to the late 4th c.[229] and subsequently refined to the first half of the 3rd c.,[230] but the full evidence has yet be published. It is thought that the villa found at the Auditorium site just outside Rome was restructured to a standard atrium form in the last quarter of the 3rd c.[231] The published evidence from Cosa places the forum's atrium houses in the early 2nd c. The archaeology, then, indicates that the system had been created by roughly the second half of the 3rd c., but there is plenty of room for refining it.[232]

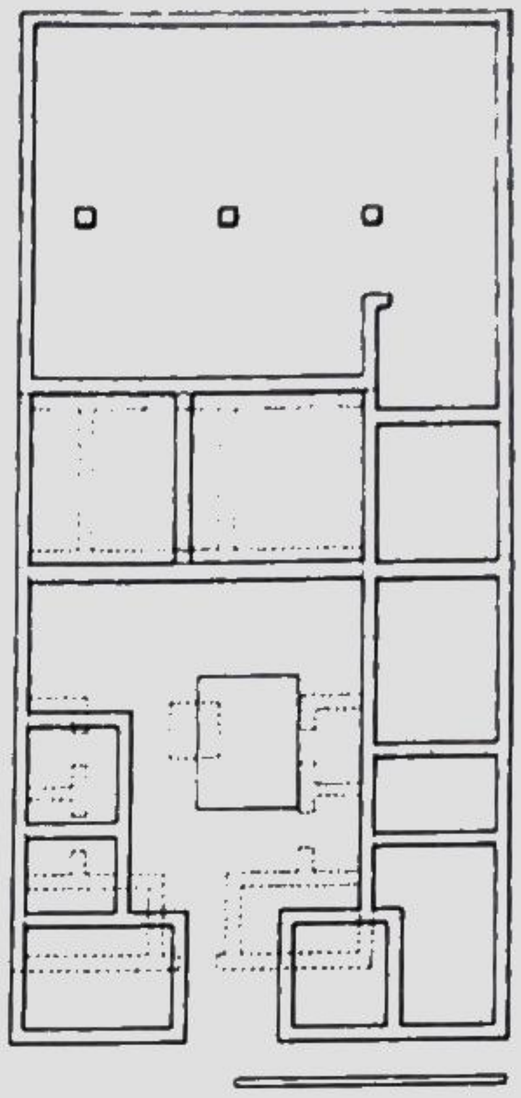


Fig. 55. Fregellae: *Domus* 7, a 2nd-c. atrium house with the remains of a 3rd-c. structure beneath (dashed lines) (from Coarelli and Monti 1998, Tav. XI, fig. 18, original without scale).

Pompeii's houses also provide essential evidence, but problems too. The town's earliest atrium houses have traditionally been dated to the late 4th or early 3rd c.[233] This was usually based on Maiuri's dating evidence for the Casa del Chirurgo, generally believed to be the earliest known.[234] This dating has now been challenged, and some have suggested a 3rd- or 2nd-c. date.[235] The most recent investigations discovered a coin datable to 214/212 in the fill of the original construction trench of the house,[236] adding weight to the belief that none of the standing remains of Pompeian houses can be securely dated to before 200.[237] Some, however, still maintain the traditional chronology, although K. Peterse's attempt, based on an analysis of the construction techniques, to place the earliest atrium houses in the 4th c. does not convince.[238] Recent attempts to push back the date of standard atrium houses, based on minute quantities of ceramic finds, such as the 4th-c. attribution for the Casa degli Scienziati, are fraught with problems.[239] Our understanding of the NW sector of the city has recently been greatly enhanced by the "*Progetto Regio VI*".[240] The research consisted of a large number of small interventions across an extensive area, providing a chronological framework for the architectural development. *Insulae* were restructured during the late 4th/early 3rd c. and some

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229 Coarelli 1995, 18-20; 1998a, 62-65.

230 Pesando 1999, 245-46; 2008, 160.

231 Terrenato 2001, 10-11; De Davide and Di Giuseppe 2006. On why we might find the design in non-urban contexts, see pp. 134-35.

232 On the apparent paucity of 3rd-c. domestic architecture in the colonies, see pp. 169-70.

233 Graham 1966, 17; McKay 1975, 17; Ellis 2000, 26.

234 Boëthius 1970, 73; De Albentiis 1990, 81.

235 Chiaramonte Treré 1990, 31-34; Zevi 1991a, 52.

236 Jones and Robinson 2007, 389-92.

237 Carafa 2007, 66. Wallace-Hadrill (2007, 280-82) provides a useful summary of the dating issue.

238 Peterse 1999, 56-63; 2007; cf. Adam 2007, 98-99.

239 De Haan *et al.* 2005; Peterse and de Waele 2005, 197. It is dangerous to hinge the date of a building on tiny quantities of sherds found in its construction levels. A sherd is usually deposited through the act of discarding a vessel, and the length of time any vessel was in use prior to discardment is extremely difficult to determine. Further, the sherd may have already been deposited prior to the building's construction. Thus a number of pre- and post-depositional processes could challenge the absolute dating of a structure from the date of manufacture of a sherd recovered from its construction trench. It provides merely a *terminus post quem*.

240 Cf. Coarelli 2005b; Coarelli and Pesando 2006a; Coarelli, Pesando *et al.* 2006; Pesando 2005 and 2008.

houses were built. A substantial area was subsequently levelled during the early 2nd c., marking the beginning of a more intensive phase of urbanisation. It was possible to reconstruct a plan of one of the 3rd-c. houses found beneath the Casa del Centauro (Reg. VI.9.3-5).[241] It demonstrates the typical tripartite division of the *prostas* house, with a transverse courtyard and double street-front rooms. It has been likened to A. Hoffmann's row-houses.[242] It appears to have possessed a central *tablinum* in the rear range of rooms and the whole structure was proportionately shorter than later examples. One of the standard atrium houses, the Casa del Naviglio (Reg. VI.10.11), is also dated by the *Progetto* to the early 3rd c.,[243] but I believe the dating evidence points rather to a *terminus post quem* of the first half of the 3rd c.[244] The variation in 3rd-c. house surface areas is thought to reflect a stratified society.[245]

If, then, the housing system comprising the atrium house and the row-house is attributable to the Romans, how do we account for its presence at Pompeii during its 'Samnite period'? Coarelli has suggested that Pompeii became an ally of Rome under Nucerian hegemony at the end of 4th c., and sees the urbanisation of Pompeii in connection with the events that brought this about.[246] Roman influence had extended even further south by this time, as the evidence from Poseidonia seems to suggest.[247] F. Pesando has now stated that the diffusion of the Tuscan atrium at Pompeii in the 3rd c. was mediated by Rome[248] as a result of her increased influence after massive territorial gains at the end of the Samnite Wars.[249] Row-houses appear to have begun to be built in large numbers at Pompeii from the end of the 3rd c., which Nappo links with an influx of refugees after the Second Punic War.[250] Based on the way in which the *insulae* were divided into building plots in this period, Wallace-Hadrill has said that "it looks as if Pompeii as an ally of Rome was re-settling itself on close analogy to a Roman colonial foundation".[251] While not excluding other possibilities, he has entertained the idea that Pompeian house design might have been derived from 3rd-c. Roman models.[252] A recent article by F. Pesando has gathered the evidence for Pompeii's close relationship with Rome during the 2nd c. and suggests, for example, that the Pompeians may have been among the allies of Rome involved in the sacking of Corinth in 146 B.C.[253] Further, the presence of Rome's ruling classes increased in the Bay of Naples area during the 2nd c.[254]

There seems to be no great obstacle to the idea that Pompeian house design was a Roman derivation. The fact remains that the standard atrium design and the *prostas*-based row-house have been found only in contexts which, it can be argued, were either Roman or under strong Roman influence. The differentiation of house-plot sizes and house designs also seems to suit the Roman system of property-class distinctions. This does not mean that the most characteristic elements of the atrium house (*impluvia, tablina, alae*) were restricted to Roman-influenced contexts during the period,[255] but that their incorporation into a standardised design was.

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241 Coarelli, Pesando *et al*. 2006, 168-69; Pesando 2005, 82-88; Pesando 2006, 229-33; Tommasino 2004, 24-27.
242 Pesando 2006, 231.
243 Coarelli and Pesando 2006b, 23-24.
244 For the dating material: Cassetta 2006a, 329; 2006b, 325.
245 Pesando 2008, 162-63.
246 Coarelli 2002, 18-19.
247 Greco and Theodorescu 1983a, 82; Pontrandolfo and Rouveret 1983.
248 Pesando 2005, 94.
249 Pesando 2008, 159.
250 Nappo 1997, 121.
251 Wallace-Hadrill 1997, 222.
252 Id. 2007, 285.
253 Pesando 2006, 233.
254 Wallace-Hadrill 2007, 279-80.
255 Cf. ibid. 286-87.

The signs of transition and adaptation

To suggest that Republican house architecture was influenced by a specific Greek model is to overturn current orthodoxy. If it is correct, the moment of its introduction may well have left a mark in the archaeological record. The sudden appearance of the adapted *prostas* design on the peninsula is one such indicator. We will examine other evidence for this footprint, often masked by scholars' reliance on Vitruvian terminology and the form of Pompeii's houses in A.D. 79.

The belief that Roman house architecture is derived from purely Etruscan roots is based on a sound logic. The atrium (compluviate roof with *impluvium*) has been found in archaic contexts in Italy and by A.D. 79 was common in houses. We might then suppose that there was an unbroken tradition over that time-span, but this is not so. By unpeeling the later phases of Pompeian houses we can come closer to the Greek original. Those excavating the row-house realised that originally these houses had open courtyards (see p. 118), and the same must be concluded for the lower-class housing at Cosa (see pp. 114-15). The same also appears to have been the case with some of the larger atrium houses.

Wallace-Hadrill has reviewed the evidence for the origin of the atrium.[256] He pays special attention to a debate (originating in the 19th c.) about the roofs of Pompeian houses. He discusses the historiography, highlighting a deep-seated belief amongst some earlier scholars that the pre-*impluvium* phases of Pompeian houses were testudinate, even though others had produced evidence to the contrary. Wallace-Hadrill's summary of Pompeian scholars' debate about roofs reveals those whose interpretations were limited (or not limited) by Vitruvian terminology. Stratigraphic excavation, including that by Nappo, has now put it "beyond question" that many houses originally had open courtyards.[257] At Fregellae, one of the large atrium houses (*Domus* 4) was found without an *impluvium*;[258] Coarelli suggests a testudinate solution, but here too we may be dealing with an open courtyard. An *impluvium* could apparently be placed in an open courtyard to catch run-off from its general surface.[259]

We are left with a chronological anomaly. The development of compluviate atria occurred during the archaic period, yet the earliest phases at Pompeii and Cosa reveal a desire for open courtyards, but only in houses derived from the *prostas* design. Subsequent phases at Pompeii are marked by an increasing tendency to build traditional compluviate roofs above these open courtyards. The unroofed atria phase thus gives the impression of being sandwiched between earlier and later compluviate phases. The earliest atrium house at Fregellae (*Domus* 7) appears already to have had an *impluvium*, pointing to the influence of archaic tradition at an early stage.

By establishing the basic elements of the *prostas* house, we can demonstrate in what ways the Romans adapted the Greek model to suit their own purposes. The exercise also provides an opportunity to identify some transitional phases. The reconstructed Greek examples of Hoepfner and Schwandner all have their entrances on the S side of the house (fig. 34) so that the winter sun could penetrate the living areas. This is also true for the lower-class housing at Cosa. However, this rule breaks down completely at Pompeii and Fregellae: especially at Pompeii, there is no tendency for houses to face in a particular direction. The main factor dictating orientation was the necessity to have the front of the house against the street.

The row-houses of Cosa and those at Pompeii presented by Nappo have a garden added to the back, the proportions of which were roughly equal to the house at the front of the property. House and garden together often give the property the proportions of 1 : 4. Many such houses had a corridor which ran between the central courtyard and the garden at the back. The range of rooms at the

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256 Wallace-Hadrill 1997, 218-28.
257 Ibid. 221.
258 Coarelli 1998a, 64.
259 Wallace-Hadrill 2007, 282.

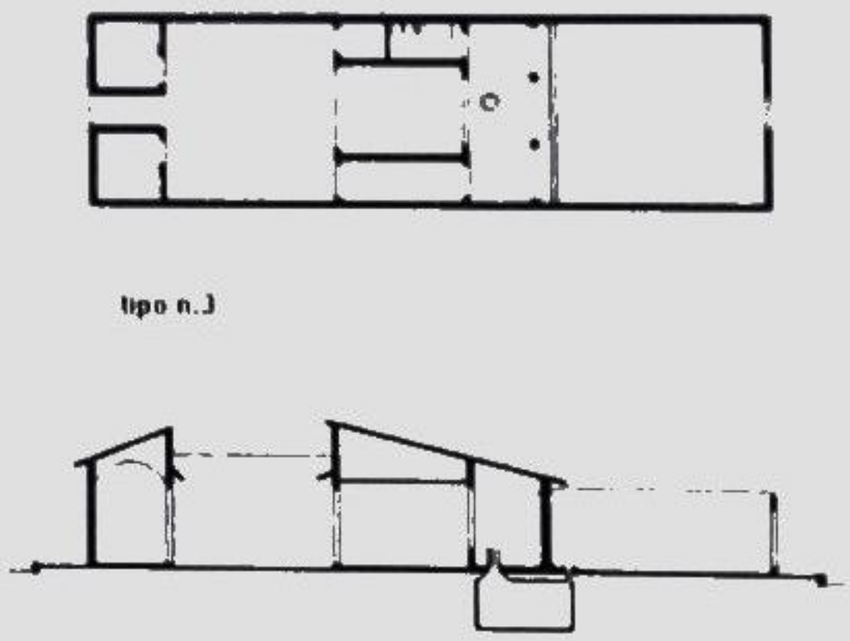


Fig. 56. Pompeii: Type 3 row-house (from Nappo 1997, 109 fig. 14).

rear of the basic *prostas* layout consisted of a longitudinal wall with rooms to either side. In Roman contexts this bipartite division becomes a tripartite division with the addition of the corridor for access to the garden. This can be seen in some row-houses at Cosa and Pompeii (figs. 43, 46-47, 57); it appears also to be a feature of the early atrium house at Fregellae (fig. 55). In this sense the Fregellae example does not have an axially central *tablinum*, but is closer to the bipartite *prostas* scheme with the addition of a corridor.

At least two of the smaller houses at Cosa (fig. 40, Lots 3 and 2) have an area equivalent to a *prostas* porch, except that it is much deeper. The additional depth given to the *prostas* made it a proper room, with one side, possibly supported by a pillar, open to the courtyard. The same arrangement is seen at Pompeii's Casa del Principe di Napoli (fig. 45). This 'deep *prostas*' starts to resemble a *tablinum*, and Bruno and Scott identify these rooms as such. The longitudinal wall which divided the rear living-quarters dictated, in this case, that the *tablinum* was confined to one side of it, rather than enjoying axial centrality, as in archaic examples (see pp. 123-27).

The basic atrium layout was a design created for the élite and their activities (see chapt. 5). The design probably became an object of prestige, making the atrium plan something to aspire to and emulate.[260] This might explain why the architectural elements of atrium houses came to be reproduced within lower-class properties. Many of the small row-houses at Pompeii adopted some elements of the atrium plan at some stage, some even from the beginning. Nappo's *Tipo* 3 has a *tablinum* axially aligned with the *fauces* (fig. 56). The template of the *prostas* house was far from ideal for this kind of change within such a small house. Removing the longitudinal wall that divided the back range of rooms and replacing it with a single room in the centre created corridors on either side of it. A corridor to the garden may have been required, but to have two appears to be a wasteful organisation of limited domestic space. The desire to have a central *tablinum* seems to have overridden other, more practical considerations. Often added were an *impluvium* and therefore a compluviate roof. In some cases this appears to have occurred very soon after the house was first constructed.

The Casa dell Bell'Impluvio (Reg. I.9.1) best shows how a row-house of Nappo's description could be converted to simulate an atrium house.[261] Like the Cosa examples, the proportions of the property, including the garden, were roughly 1 : 4 (fig. 57). During the initial 2nd-c. phase, the courtyard had no side-rooms and was without an *impluvium* (thus probably an open courtyard). The range of rooms behind the courtyard demonstrates the bipartite division seen in *prostas* houses, along with a corridor to the garden. Then in a late 1st-c. phase the courtyard received side-rooms and an *impluvium*. The rooms behind the new compluviate atrium were completely re-organised with an axially central *tablinum*. The excavators suggest the columns of the peristyle in the garden might also date from the second phase. Between the first and second phases the house was turned from one clearly identifiable with lower-class housing to a mini-copy of a larger atrium house. This transition came to obscure the original elements of the house that demonstrated its Greek ancestry. From this growing desire amongst smaller property owners to emulate the features of the standard atrium design, we can begin to understand why the diverse house designs for distinct property classes came to be blurred by A.D. 79.[262]

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260 Cf. Wallace-Hadrill 1994, 143-74; Gros 2001, 38.
261 Fulford 1998, 49-55.
262 Cf. Wallace-Hadrill 1991, 250-60; Dickmann 2007, 422-23.

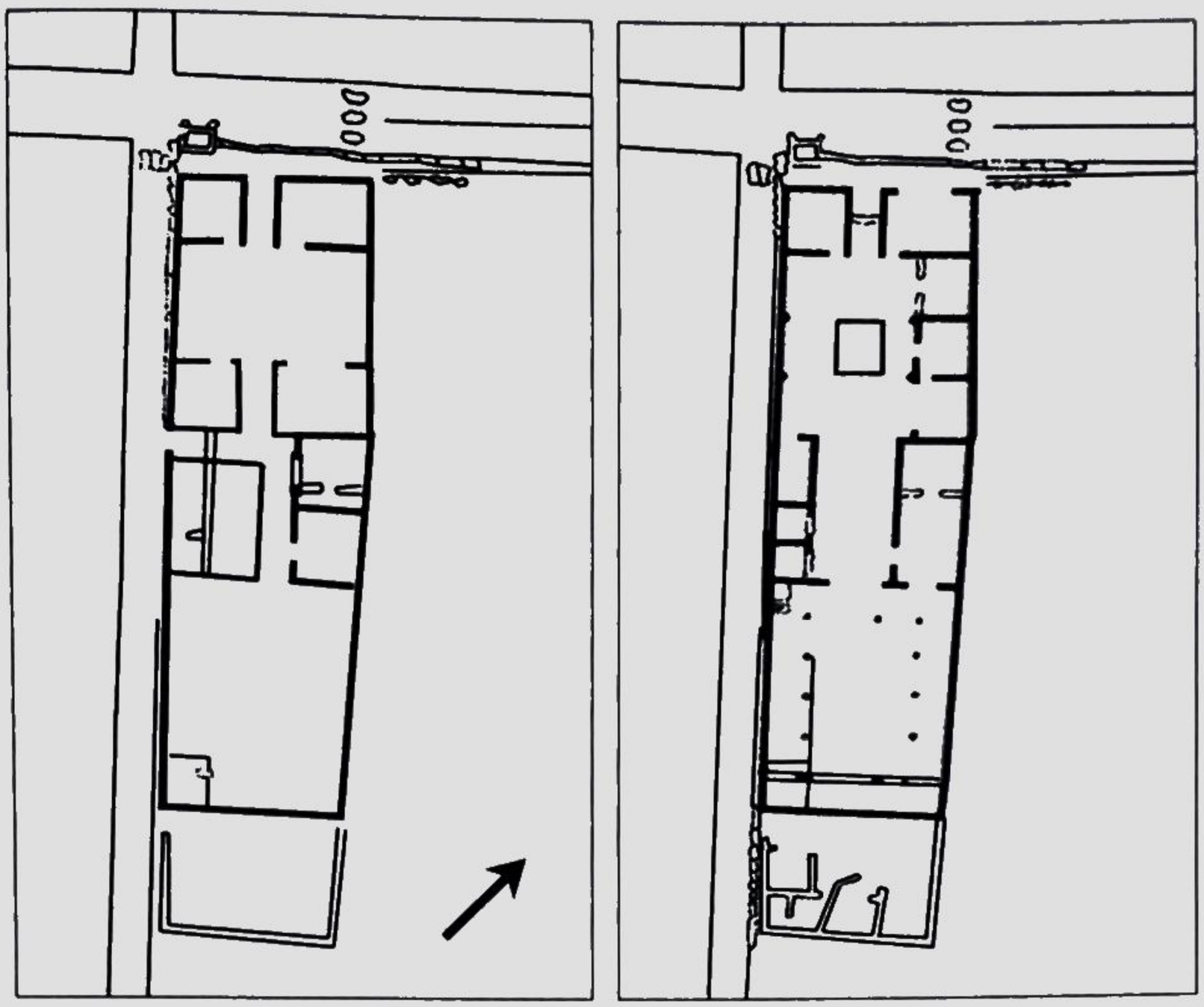


Fig. 57. Pompeii: the early development of the Casa del bell'Impluvio, Reg. 1.9.1 (after Fulford 1998, 52 figs. 59-60).

Conclusions and implications

Roman town planning and architecture can be better understood when placed within a broader Mediterranean context (see pp. 50-53). This is highlighted by the fact that the *prostas* house design has not yet been found in Western Greek contexts. There are so many points of contact between the design of the Greek *prostas* house and the lower-class housing seen at Cosa, Fregellae and Pompeii that there can be little doubt that the row-house was based on the *prostas* design. The repetition of this form in multiple urban contexts indicates that it was employed for the large-scale construction of residential quarters of new, or newly urbanised, towns. The flexibility of the *prostas* design probably made it attractive. Its presence demonstrates that the Romans exploited the Greek system of mass house construction according to a limited but flexible series of designs. The benefits would have been same as those enjoyed in Greek contexts: efficient management of resources, amelioration of social stress during the foundation process, and increased structural stability. It seems likely that the classic atrium house was a product of the Roman interpretation of this system. Its design was probably created by standardising traditional features within a regularised house form so that it could be constructed together with row-houses. Further sign of the arrival of a foreign house form is provided by the early phases of Pompeian houses which demonstrate closer similarities to the original Greek design. Together, the row-house and the atrium house formed part of a system of predetermined house designs for the different classes which came to be applied in the colonies.

With the adoption of a Greek house form came some aspects of its functionality within the urban environment. Similarity in the function of both row-house and atrium house may be seen in their double street-front rooms. At Pompeii, these spaces are more likely to have an opening onto

the street if the house is situated on a main road, thereby giving them the appearance of *tabernae*.[263] Hoffmann's row-houses, for example, are on a minor road; the entrances to these same rooms are from the courtyard (fig. 46). This pattern can also be seen at Fregellae (fig. 49): only the houses closest to the forum have a street access to these rooms. Cosa may be interpreted in the same way: the housing blocks excavated by Bruno and Scott were not on a main road; the street-front rooms have only courtyard access. Similar rooms in the atrium houses on the forum, however, are accessed from the public square (which doubtless contributed to Brown's interpretation of them as *atria publica*).[264] H. Lauter noted that this pattern is strikingly similar to that seen in street-front rooms at Priene and Olynthus.[265] Thus not just the form but also the functional flexibility of these spaces was adopted with the design, implying some similarities in the way Greek and Roman urban environments functioned.

Of the house types discussed here, the atrium house shows less variety throughout its history than any other. In some senses it appears more like a true *Typenhaus*, inasmuch as the intent seems to have been to have houses that looked the same, at least in plan. The *prostas* house had two ranges of rooms divided by the space of the intervening courtyard. This allowed alterations or adaptations to be made to the structures at either end of the courtyard without disturbing each other. Flexibility seems to have been incorporated into the basic design to allow for the diverse needs of owners, yet a large part of the interior space of the atrium house seems to have been designed for particular functions: a setting for the interplay between the *patronus* and his clients, and as a showcase for the symbols of his ancestry and power. A visitor to a house with the atrium layout would immediately recognise that he was entering the abode of a person from a leading family. Because the interior plan confirmed the owner's social rank, this may go some way to explaining why the atrium plan remained fixed for such a long period.[266]

The crystallisation of the atrium design was momentous because it *standardised*, to a new degree, the form of residence associated with the ruling classes. This association then became a *convention*, which rapidly caught on. Standardised domestic architecture is of greatest value when large numbers of houses need to be constructed. This is why I believe it arose in the context of designing and building new towns.

However, the convention associating the standard atrium plan with the ruling classes appears to have developed its own momentum, enabling the design to break free from its original urban context. The Auditorium site outside Rome offers a rare glimpse into the long-term (550 B.C.–A.D. 225) development of an extra-urban farm/villa.[267] Although the living quarters appear to have been arranged in relation to at least one courtyard throughout the farm's various phases, in the later 3rd c. the complex underwent a radical transformation and was largely rebuilt according to the standard atrium design.[268] We are fortunate to have some idea of the farm's physical form over time, and it seems certain that its earlier phases bore little resemblance to the atrium design, so we can rule out here a gradual 'evolution' into the standard atrium form: it appeared suddenly, marking the arrival of a new concept, possibly at the hands of new owners. Why should a design for an urban context appear in the countryside? Perhaps it was due to the rapid spread of the *social convention* which associated this form of dwelling with the ruling classes. At Settefinestre villa the core of the complex consisted of the same basic atrium layout:[269] even at such a large villa, whose size alone must have impressed the visitor, there was still a perceived requirement to have the atrium plan

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263 Cf. Laurence 1994, 88-103.
264 Brown 1980, 33-36.
265 Lauter 1975, 150-51.
266 As also implied by Wallace-Hadrill (2007, 287).
267 Carandini *et al.* 2006.
268 Terrenato 2001; De Davide and Di Giuseppe 2006.
269 Carandini *et al.* 2002, fig. 57.

at the core of the complex. Although Vitruvius' description of the Greek house has the peristyle as the central element, in the Roman context the peristyle was simply added to the existing atrium layout.[270] Nothing was allowed to disturb the original atrium plan. If a wealthy man had decided to express his status through an alternative house design, the risk was that the attempt would not be duly recognised, due to the ubiquity of the atrium design and the strength of the social conventions associated with it.[271]

In connection with the atrium house, the use of a predetermined design seems to have fulfilled a further rôle. Although Roman citizens are thought to have made up a considerable number of the colonists for each new Latin colony, they were not all of Roman stock. Several colonies provide evidence that high-ranking citizens came from other ethnic backgrounds.[272] In comparison to the total number of Latin colonies built, only a small part of the residential areas of a very few are known archaeologically. Within this sample, however, all but one of the houses on the largest building-plots originally had the standard atrium plan.[273] This implies that instructions on how to build the house were *given* to those who took possession of those plots. In some ways this would have created a 'level playing-field': the provision of a single house design for the colonial élite would have ensured a degree of equality, at least amongst themselves. This may have proven especially useful in colonies whose aristocracy were of mixed ethnicity, but the design given to them was a Roman one, and one designed for activities and rituals that were distinctly Roman — rituals that confirmed the status of the Roman patron. For the wealthy non-Roman families who settled in the colonies in the wake of Rome's conquest of the peninsula, application of the atrium design may have been employed as an active tool in assisting them to adopt a more privileged rôle within the Roman *clientela* system. We might justifiably apply the maligned term 'Romanization' to this phenomenon. But regardless of whether the Samnite élite of Pompeii chose, or was required, to adopt the atrium house as their form of urban residence, they came to live in houses that were symbols of the rituals associated with Rome's patronage system.[274]

Finally, by assigning Rome the mediating rôle in the dissemination of the atrium house throughout Italy, a re-appraisal is required of the long-standing convention to label it 'the Italic house'.[275] The expression is derived from Vitruvius, who does not call it Roman, but says that is constructed according to the Italic custom (*italico more*),[276] implying a non-Roman or pre-Roman tradition. The validity of the term was seemingly confirmed by the excavations at Pompeii, since so many atrium houses that were built during the 'Samnite period' were unearthed. Yet now the origin of the form appears to be Etruscan rather than Italic. Moreover, even though some of the urban and rural contexts in which the atrium house appears during the mid-Republic might be described as Italic, none, so far as I am aware, can be securely disassociated from Roman influence. With a lack of physical evidence supporting an independent Italic tradition to build atrium houses from the mid-Republican period onwards, a reconsideration of Vitruvius' reasons for apparently implying such is due. An alternative reading is possible: recently, A. Wallace-Hadrill has warned that the Italy Vitruvius refers to with *italico more* might be the ideological Augustan concept of *tota Italia*.[277] Upon

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270 Dickmann 1997, 121-36, especially 124 and 136; Gros 2001, 45; cf. Wallace-Hadrill 2007, 286-88.

271 Wallace-Hadrill 1994, 14.

272 Badian 1958, 23-24; Salmon 1969, n.65; David 1996, 40-41; Torelli 1999b, 3-4; Bradley 2006; Pelgrom 2008, 354-57. Cf. Cornell 1995a, 367.

273 At Paestum, *Maison D* on *insula* In (n-2) had a peristyle court where one would have expected an atrium: Bragantini *et al.* 2008, 159-99. This Hellenistic influence might be due to the house owner having been a descendant of an influential Greco-Lucanian family of Poseidonia: ibid. 239-40.

274 Cf. Wallace-Hadrill 2007, 287-88.

275 Cf. Wallace-Hadrill 1997, 219; 2007, 279-82.

276 Vitr. 6.7.7.

277 Wallace-Hadrill 2007, 279-80. Elsewhere (2008, 144-210 and 448) he discusses Vitruvius' aligning of Roman and Italic identity.

closer inspection one finds strong indications that Vitruvius is indeed referring to the custom of Augustan Italy. At an earlier point in his book on domestic architecture he gives a long discourse (6.1.3-10) on the strengths and weaknesses of the peoples from the north and the south (of the known world), the aim of which is subsequently revealed in a description of Italy that adheres strictly to Augustan ideology:

> veros inter spatium totius orbis terrarum regionesque medio mundi populus Romanus possidet fines. namque temperatissimae ad utramque partem et corporum membris animorumque vigoribus pro fortitudine sunt in Italia gentes. quemadmodum enim Iovis stella inter Martis ferventissimam et Saturni frigidissimam media currens temperatur, eadem ratione Italia inter septentrionalem meridianamque ab utraque parte mixtionibus temperatas et invictas habet laudes. itaque consiliis refringit barbarorum virtutes, forti manu meridianorum cogitationes. ita divina mens civitatem populi Romani egregia temperataque regione conlocavit, uti orbis terrarum imperii potiretur.
>
> Within the area of the entire earthly globe and all the regions at the centre of the cosmos, the Roman People has its territories. The populations of Italy partake in equal measure of the qualities of both [north and south], both with regard to their physiques and to the vigour of their minds, to produce the greatest of strength. Just as the planet Jupiter is tempered by running its course between seething Mars and chilly Saturn, so, for the same reason, Italy, in between north and south, partaking of each in her composition, has balanced and invincible qualities. With her prudent counsel she smites the barbarians' strength, her strong hand does the same to the southerners' scheming. Thus the divine intelligence established the state of the Roman People as an outstanding and balanced region — so that it could take command over the earthly orb.[278]

Surely Vitruvius subsequently assigns the custom of building atrium houses to the Italy he takes such care to pre-define: balanced, strong, and synonymous with the Roman State (*civitas populi Romani*).[279] Atrium houses were indeed a feature of towns across Italy in his day. Archaeology has largely confirmed that they were a tradition specific to the peninsula, for they are hardly found outside it.[280] According to this reading, it is unlikely that Vitruvius' intention was to create a non-Roman allusion. Still, before consigning the 'Italic house' to myth, we need to be mindful of the massive gaps that remain in our knowledge. Why was the atrium plan important for the Etruscans, and what were the processes involved in its development? The atrium layout was seemingly once important for both Romans and Etruscans, and the reasons for this overlap remain obscure. With a significance that transcended cultural boundaries, it might well have been adapted by Italic peoples during the archaic period, creating branches of architectural development in differing regions that have yet to be discovered. Key pieces of the puzzle still need to be found.

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278 Vitr. 6.1.10-11. (transl. I. D. Rowland; my parentheses). Cf. Callebat 2004, 85-86; Wallace-Hadrill 2008, 149-50.

279 It may be argued that Vitruvius' other references to the building traditions of Italy (5.1.1; 5.11.1; 6.3.10) are relevant to Augustan Italy.

280 Cf. Wallace-Hadrill 2008, 195-96.

CHAPTER 5

The semi-public function of atrium houses near the fora of Latin colonies

Introduction

The limited excavation data indicates that atrium houses were congregated around Latin colonial fora and, when the terrain permitted, on nearby high ground. This section will introduce the archaeological evidence from each of the four settlements. I conclude that it was a real phenomenon, and that during our period Roman town planning included setting aside land in the vicinity of the forum for *domus*. This model is similar to that known from Rome, and the literary and archaeological evidence for the relationship between the *domus* and the Forum Romanum will be assessed. One goal is to establish whether this aspect of colonial forum design was derived from Rome – as is tentatively suggested for Cosa by E. Fentress and M. Torelli.[1]

The second half of the chapter is devoted to trying to understand this phenomenon. What rôle did the *domus* play, and why was it necessary for them to be close to the forum? I will focus on the public aspects of the *domus*: the activities that took place within it; what it shared with public architecture in terms of appearance; its religious aspects; and how it could be perceived as a public concern. In each of the areas covered, the literary sources reveal a blurring of the private and public spheres. In terms of the activities within the house, the analysis will focus on patronage. What is often missing from the standard modern works on Roman patronage[2] is a sense of place; patron-client interaction is often discussed with little focus on where exactly these ritualised and inter-personal dealings occurred. The ancient sources also rarely refer to the setting where the business of patronage took place. Studies on the *domus*, on the other hand, tend to use literary and archaeological sources in order to understand the physical aspects of the house, its development, and how it reflected Roman society.[3] Rarely is an attempt made to investigate how the house functioned within the context of the town – A. Wallace-Hadrill's analysis of houses and trade is an exception.[4] By closing the gap between literary and archaeological evidence to some degree, I hope to create a clearer understanding of the rôle of the *domus* in Roman urbanism during the period in question. I will stress the importance of inter-personal and extra-legal relationships within the *res publica*. Since the house appears to have been the main location for these ritualised interactions, it could provide certain services, including some on political and juridical levels. I show that some of the public activities in houses were integrated with those in the Forum and its public buildings. In this way the *domus* appears to have belonged to the architectural vocabulary of the forum.

Differentiated house plot sizes according to property class: a purely Roman phenomenon?

In the previous chapter I elucidated Fentress' idea that, during the foundation of Latin colonies, residential areas were parcelled unequally but in correspondence with the property class of the colonist (see pp. 121-22). As we have seen at Cosa, the surface areas of the plots appear to have been largely restricted to one-eighth, one-quarter, or half an *actus quadratus*. The systematic employment of a variety of plot sizes has no clear parallel in any Greek urban context. The town plan of Miletos has been reconstructed with particular quarters possessing distinct *insula* sizes, but the restored plan possibly suffers from over-interpretation and its dating is less than certain.[5] Although slight discrepancies have been observed amongst plots at Olynthus, for example, there is no evidence for the kind of deliberate and systematic differentiation attested at Cosa.

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1 Fentress *et al.* 2003, 23; Torelli 2007, 124-26.
2 Badian 1958; Rouland 1979; Saller 1982; Brunt 1988, 382-442; Wallace-Hadrill 1989b; Eilers 2002.
3 E.g., De Albentiis 1990; Wallace-Hadrill 1994; Pesando 1997; Hales 2003.
4 Wallace-Hadrill 1994, 118-42.
5 Shipley 2005, 336, 362 and 384.

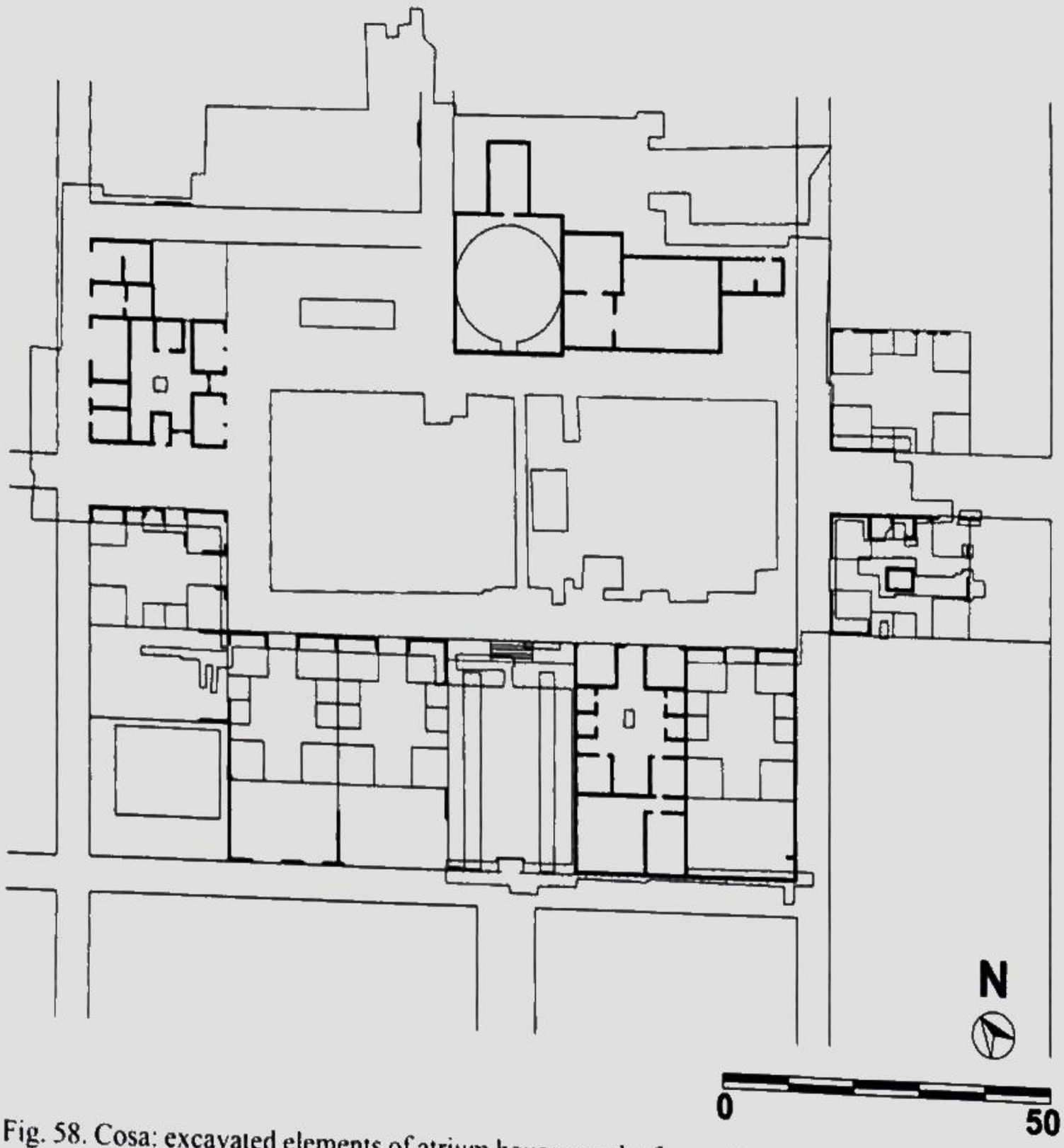


Fig. 58. Cosa: excavated elements of atrium houses on the forum (from Fentress *et al.* 2003, 22 fig. 9; reproduced by kind permission of the American Academy in Rome).

For this reason Greek and Roman housing is often contrasted. The varieties in size and investment in Roman houses is very unlike the uniform and humbler nature of Greek dwellings from the Classical period.[6] Yet this observation is only partially valid for the period under discussion. L. Nevett has noted that, from the second half of the 4th c., Greek houses start to demonstrate greater differentiation in size and decoration.[7] This process accelerated towards the end of the 3rd c. House construction in existing cities during the Hellenistic period demonstrates that some were able to invest more in domestic architecture and decoration than others. But this phenomenon cannot be linked to the unequal distribution of house plots during the foundation process. The only possible contemporary parallel to the Roman situation might come from Macedonia. A group of extremely large houses has been excavated adjacent to the agora at Pella.[8] They were planned as part of a new residential area towards the end of the 4th c. Some were massive: the House of Dionysos covers an area of *c*.3,000 m². They appear to have been constructed in an area that was planned to be a residential quarter for particularly rich occupants, but there is no uniformity in the size of the plots. In other parts of the city smaller houses have been found, which suggests that there may have been some size differentiation in intramural parcelling during the planning process. Ultimately, however, there is no clear foreign model for the Roman phenomenon of differentiated house plot sizes: it appears to be a Roman convention.

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6 Pesando 1989, 92-96; Wallace-Hadrill 1994, 6; Zaccaria Ruggiu 1995, 179; Hales 2003, 207.
7 Nevett 1999, 114 and 126-27.
8 Papakonstantinou-Diamantou 1971, 60; Makaronas and Giouri 1989, 18 and 146; Nevett 1999, 114-16.

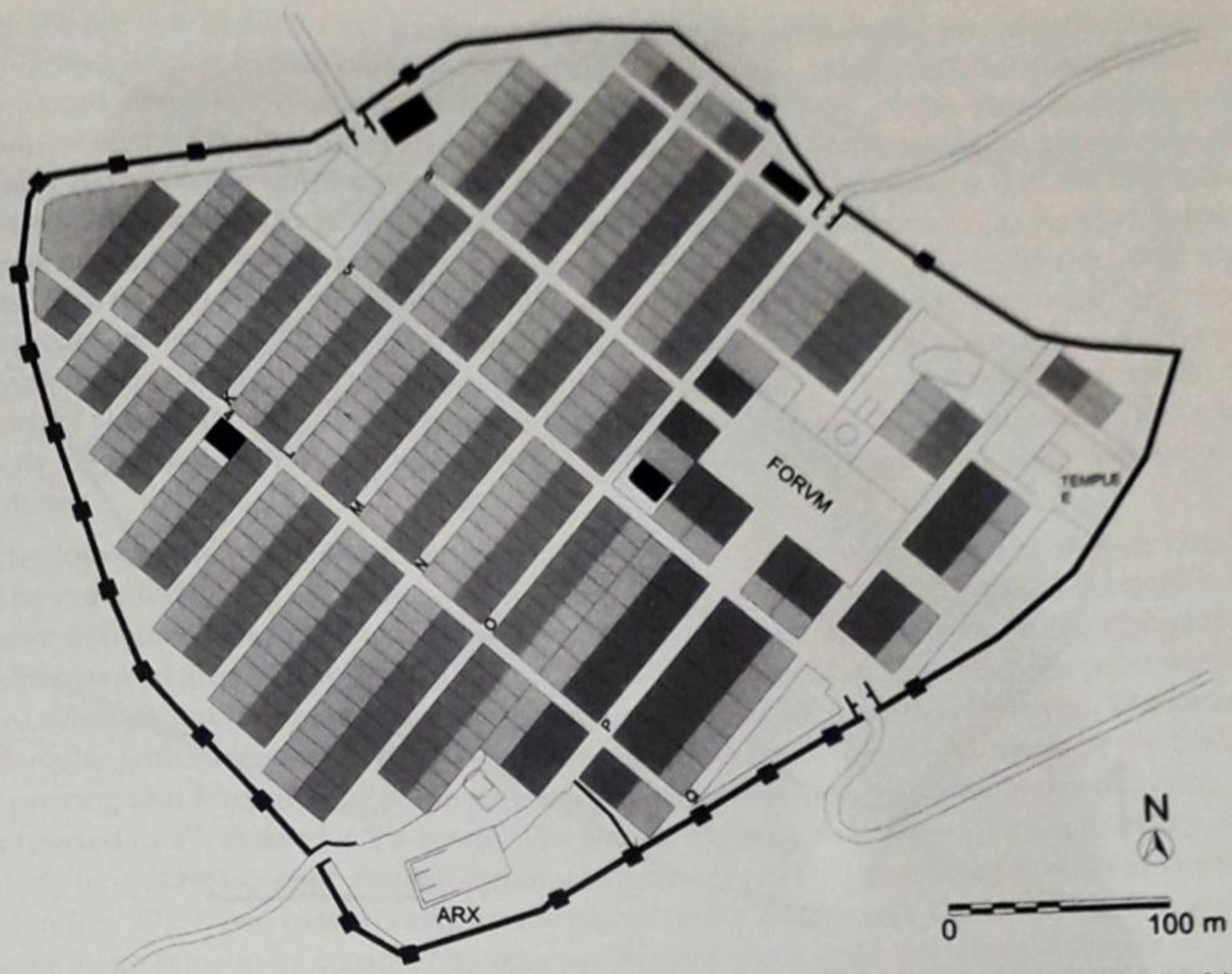


Fig. 59. Cosa: reconstruction of the distribution of atrium houses by E. Fentress (from Fentress *et al.* 2003, 24 fig. 10; reproduced by kind permission of the American Academy in Rome).

Evidence for the zoning of different property-classes in Latin colonies

At Cosa, four large atrium houses were constructed on the forum's SW side, while others lined the NW and SE ends (fig. 58).[9] Those on the SW side filled plots that were double the size of those excavated further west (see pp. 121-22). F. E. Brown interpreted these structures as *atria publica,*[10] but this cannot be accepted. The sources provide a single reference to an *atrium publicum,*[11] situated on the Capitol, but no description of its function.[12] Fentress mentions that Brown, perhaps understandably, had problems envisaging private property bordering Cosa's forum. Subsequent excavation of a house along the SW side of the forum has placed it beyond doubt that these structures were *domus* of the standard atrium type (fig. 50),[13] with *tabernae* built into their façade.[14] The houses on the forum, then, were probably intended for the colonists of the highest property-class, amongst whom one could expect those with political aspirations.

Based on the differences in plot sizes between the forum dwellings and those to the west, Fentress created a hypothetical reconstruction of the housing zones within the colony according to property class (fig. 59).[15] By comparing the hierarchical relationship between houses of higher

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9 Brown 1980, 33-36; Brown, Richardson and Richardson 1993, 57-97.
10 Brown 1980, 33-36; Brown, Richardson and Richardson 1993, 101 and 103.
11 Livy 24.10.9.
12 Fentress 2000a, 13-19, especially 19. Cf. Welin 1953, 179-219; Bispham 2006, 78; Bradley 2006, 162.
13 Fentress *et al.* 2003, 14-23 and 145-213.
14 www.press.umich.edu/webhome/cosa/forum_v.html (last consulted January 19, 2008).
15 Fentress 2000a, 17-18; Fentress *et al.* 2003, 23-26. Recent excavation on the NE corner of the *insula* defined by Streets O, P, 4 and 5 suggests that the reconstruction may be correct, at least here: see chapt. 3, n.60.

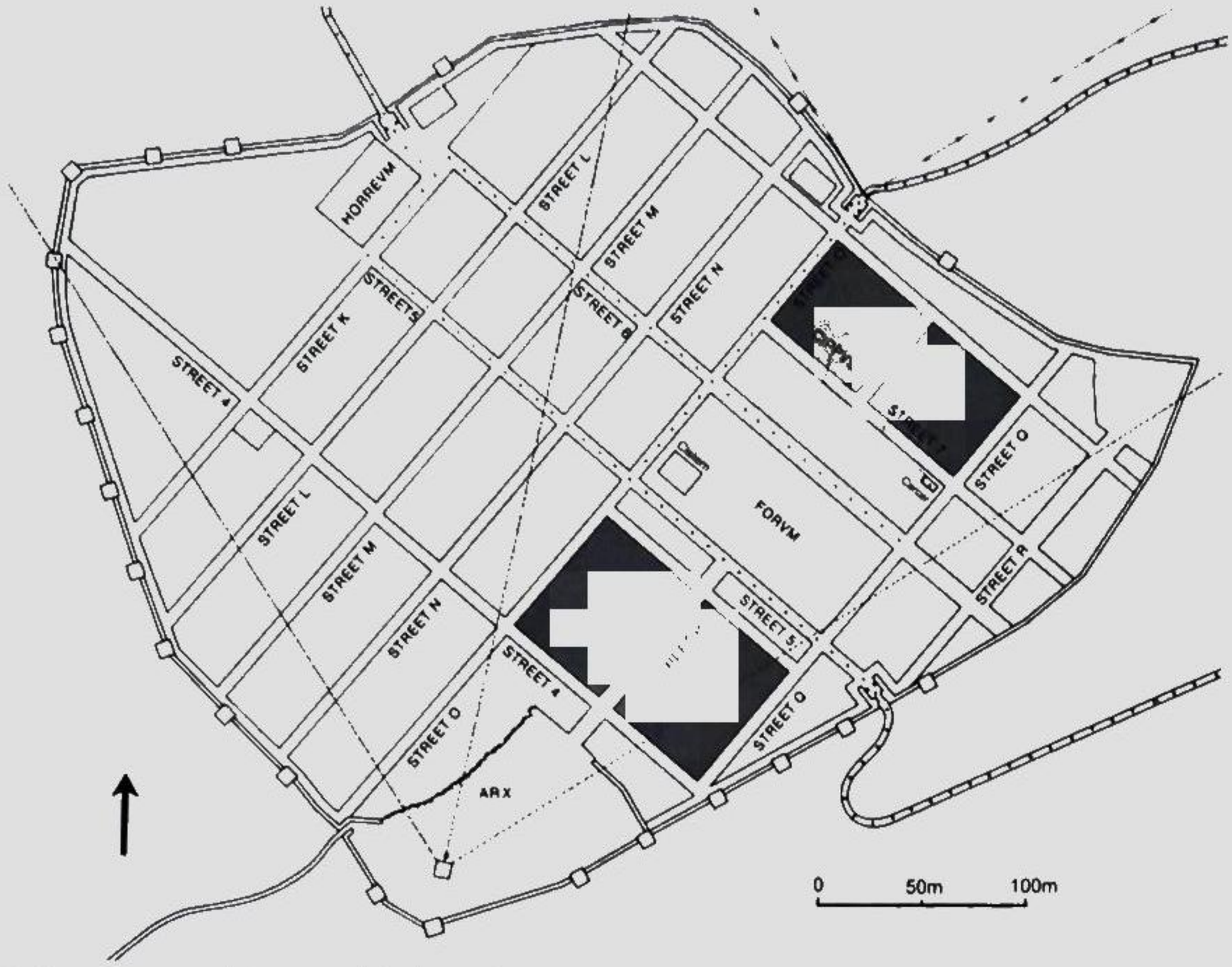


Fig. 60. Cosa: areas possibly reserved for houses belonging to the highest property-class within the reconstructed 3rd-c. plan (after Brown, Richardson and Richardson 1993, 6 fig. 1).

military ranks and the main streets at the military colony of Thamugadi (Algeria),[16] Fentress suggests that the élite housing at Cosa could have been placed on the notably wider streets P and R. The extra width of these streets suggests to Fentress that they had greater status, which may have reflected that of the house owners. These streets were originally interpreted by Brown as processional routes, sanctuaries from the 2nd c. being found at the terminals of both (see p. 33).

The reconstruction of Cosa's 3rd-c. town plan provides further evidence.[17] Based on the restored plan (fig. 60), the two *insulae* immediately southwest and northeast of the original forum were wider than those elsewhere. The size of these blocks is the key: they could accommodate larger properties than those excavated in the NW half of the town, and the main building type one could reasonably expect on them would be houses. To judge from the plan alone, it is possible that these areas were planned to be for *domus*. The fact that these wider blocks were placed on either side of the forum suggests that the aim was to ensure that the buildings on them had a close relationship with the market-place. The presence of houses on three sides of the later forum reflects a similar desire to have larger properties in close proximity to it; possibly it mirrors the earlier scheme. The two *insulae* on the SW side are sandwiched between the forum itself and the Arx. In addition to the greater width of street P between them, the status of these blocks is indicated by their relative height, higher than all of the smaller blocks in the NW half of the settlement. The blocks on the NE side of the forum were not so elevated but would still have been higher than all the smaller houses to the northwest of them. The possibility of having *domus* situated both close to the forum and above the smaller houses could be achieved only if the forum itself was in a high position — a feature of the fora of both Cosa and Alba Fucens, which were situated on hills (see p. 57).

16 Fentress 1979, fig. 8.
17 Sewell 2005.

On the NE side of the forum, the larger *insulae* are separated from the forum by the long block for civic buildings. If Roman planners were consistent, it is possible that similar *insulae* were originally placed along the SW side of the forum (figs. 24 and 60, see pp. 60-61). This would mean that the houses on the SW side would also have been separated from the forum by an intervening block that may have been designed for *tabernae*. In that case, it could be considered that the later scheme broke with the tradition by having houses built directly on the forum. This is not the case, however, because each of the houses on the later forum probably had shops incorporated into their street-fronts, with the result that *tabernae* were situated between the forum and the atrium of each house. This model for residential zoning at Cosa differs from that of Fentress inasmuch as the forum is presumed to be the element that determined the placement of élite dwellings, rather than the more important streets. It needs to be borne in mind that the only *domus* actually excavated at Cosa are directly on the edge of the later forum, but it is likely that there were more such dwellings than just these.

The topography of the 3rd-c. forum at Alba Fucens is extremely similar to that at Cosa (fig. 4). The main foci of the excavations were its civic and commercial architecture. As only a small number of houses was excavated, the following interpretation relies heavily on the topography of the unexcavated areas. The planners chose to situate the forum at a relatively high point within the town, although (unlike at Cosa) level terrain elsewhere might have been employed. The sanctuary of Hercules with its gigantic portico was located much closer to the actual centre of the town (fig. 17), proving that level ground at the very heart of the settlement, available at the planning stage, was rejected as a location for the forum. The forum, situated at the base of a small valley, is particularly long (43 x 143 m).[18] The full distance between the comitium and the basilica is as much as *c.*172 m (fig. 17).[19] Two narrow *insulae* were placed along the forum's flanks (see p. 59), and both at some stage came to be occupied by *tabernae*. Beyond them were the terraced slopes of the valley believed to hold *insulae* for houses.[20] Only the SW slope was investigated archaeologically and the results prompted J. Mertens to consider the *insulae* there to comprise a residential quarter.[21] Only one small area behind the *tabernae* was intensively investigated. Amongst other artifacts, fragments of mosaics and painted wall plaster (First or Second Style) were recovered, which Mertens described as the remnants of "belles habitations". Some wall foundations were thought to belong to *tabernae* and, to judge from their appearance on the plan, might have belonged to the *tabernae* of atrium houses.[22] The town's public architecture was situated on and beyond each end of the forum. Thus the houses placed on the rising slopes of the forum valley would have dominated it visually. This arrangement appears to have been created intentionally by the planners. The few excavated houses are predominantly from the Republic. The irregularity of their plans and surface areas indicate that they do not correspond to the original house-plots of the 3rd c. The largest house excavated (surface area of 800 m^2), dated to the 2nd c., lay *c.*80 m to the south of the forum on the *via del Miliario*.[23] Although it seems to have been extended in its later phases, perhaps at the expense of neighbouring properties, sufficient remnants of its original plan allowed J.-C. Balty to reconstruct it as a standard atrium house. A grand peristyle house close to the city wall on the hill of S. Pietro was possibly of the Republican period.[24] Another *domus* was found on the E slope of that hill below the amphitheatre.[25] Based on this small sample, the greatest *domus* was located not far from the forum, while the other two were on the side of hill occupied by one of the sanctuaries. The latter two were in fact a great distance from the forum (see pp. 144-45).

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18 Mertens 1988, 103.
19 Id. 1969a, 96.
20 Id. 1988, 102.
21 Id. 1969a, 90-91.
22 De Visscher and De Ruyt 1951, 78.
23 Balty 1985; Pesando 1997, 291-93; 1999, 248-49; Ceccaroni 2002, 76.
24 Ceccaroni 2002, 76.
25 Ricciardi 1991; Ceccaroni 2002, 77.

The urban area of Fregellae is not as hilly as that of Alba or Cosa. Although the topography of the town is not fully understood, it is relatively clear that it did not provide any possibility for the forum to be placed in a small valley. The course of the main *cardo* (*via Latina*) that bisects the forum was possibly placed on a ridge that ran through the town (see p. 57). The excavated *decumanus*, which runs east from the NE corner of the forum, had large atrium houses on either side of it (fig. 16). This has provoked the suggestion that these dwellings lay within a particular zone of aristocratic housing.[26]

The previous chapter showed that some of the houses towards the E end of the *decumanus* appear to have frontages that were half the width of those to the west (fig. 49; see pp. 121-22). The larger houses are congregated towards the end of the street closest to the forum. Although many of the excavated remains date from the 2nd c., the only earlier structures reported in this area were *domus*, suggesting that this area was set aside for élite residences during the planning process. The houses are not situated immediately on the market-place since the E side of the forum is flanked directly by a long *insula* for public buildings, which fits the pattern seen in other colonies (see pp. 58-62). The excavated *decumanus* adds strength to the idea that the planning of Latin colonies included setting aside an area in close proximity to the forum for houses belonging to colonists of the highest property-class.

At Alba and Cosa the high ground seems to have been favoured by the planners as areas suitable for *domus*, but the intramural terrain at Fregellae does not seem to have provided clear-cut opportunities for similar hierarchical relationships to be created through differences in elevation. To be sure, in the area of the excavated *decumanus* the landscape is somewhat undulating.[27] The forum itself was set on a flattened ridge, so to the east the land slopes downwards before starting to rise towards the limit of the excavated area. The street's smaller houses are congregated at the base of the trough but it is difficult to imagine how an intent to distinguish zones by elevation could respond to a terrain marked by small and frequent changes in level. This makes it difficult to reconstruct how the élite zone might have extended: it may have continued behind the narrow blocks that flanked the forum's sides, clinging to the edges of the ridge, or it may even have projected beyond the N end of the forum where the terrain is slightly more elevated.

At Paestum little is known about the housing during the Republic. Because the colony lay on relatively level terrain, this largely prevented the Roman planners from creating hierarchical relationships by exploiting the physical relief. The town planning of this former Greek/Lucanian settlement seems to have undergone little change with the implantation of the colony. The areas north and south of the forum, for example, retained their rôles as major sanctuaries. The E end of the forum and whatever lies beyond remain largely unexplored. Several residential *insulae* were excavated immediately to the west of the forum during the 1950s and 1970s, but the results were hardly published and none of the original recording survives.[28] They are situated to either side of the *decumanus* that directly adjoins the forum. Although many of the houses received compluviate atria at some point, most of those that conform to the standard atrium design are congregated on either side of the street with their entrances facing it.[29] This scheme may thus parallel that at Fregellae. Between 1993 and 2004 one of these *insulae* immediately to the west of the forum (*In (n-2)*), in which two of these standard atria (*Maison A-B*) are situated, was cleaned and investigated (fig. 61).[30] It was not possible to date their original construction phase. The oldest pavements might be from the late 2nd or early 1st c. when the two houses were combined to form a single

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26 Coarelli 1991, 180-81; id. 1998a, 62-63; Pesando 1997, 278; id. 1999, 243.
27 Ferraby *et al.* 2008, fig. 3.
28 Pesando 1997, 293-95; Torelli 1999a, 73; R. Robert and A. Lemaire in Bragantini *et al.* 2008, 3-6.
29 Cf. Greco 2008, 22.
30 Bragantini 2000; Bragantini *et al.* 2008; Lemaire 1992; Lemaire and Robert 1995 and 2000.

double-atrium dwelling.[31] Thus, despite the not-inconsiderable problems related to Republican housing at Paestum, there is some sign that the area closest to the forum's W edge may have been reserved for *domus*.

The existence of atrium houses adjoining, or close to, the fora at Fregellae, Paestum and Cosa shows that Republican town planning included a convention of placing at least some residences of the colonial élite in close proximity to the forum. The remains of houses of the standard atrium type not far removed from the forum of Alba Fucens add some support to this hypothesis. To judge by the topography of Alba Fucens and the reconstructed 3rd-c. plan of Cosa, it appears that, when Roman planners were faced with hilltop sites, the natural terrain was exploited to place the larger houses on the high ground as well as in the vicinity of the forum. Each of our four Latin colonies supplies only fragmentary evidence,[32] but taken together it appears to reveal a phenomenon that merits further investigation.[33] If we join it to the idea that the long sides of the fora of each of the four Latin colonies were lined with *insulae* designed for civic buildings and shops (see pp. 58-62), the following hypothesis may be offered:

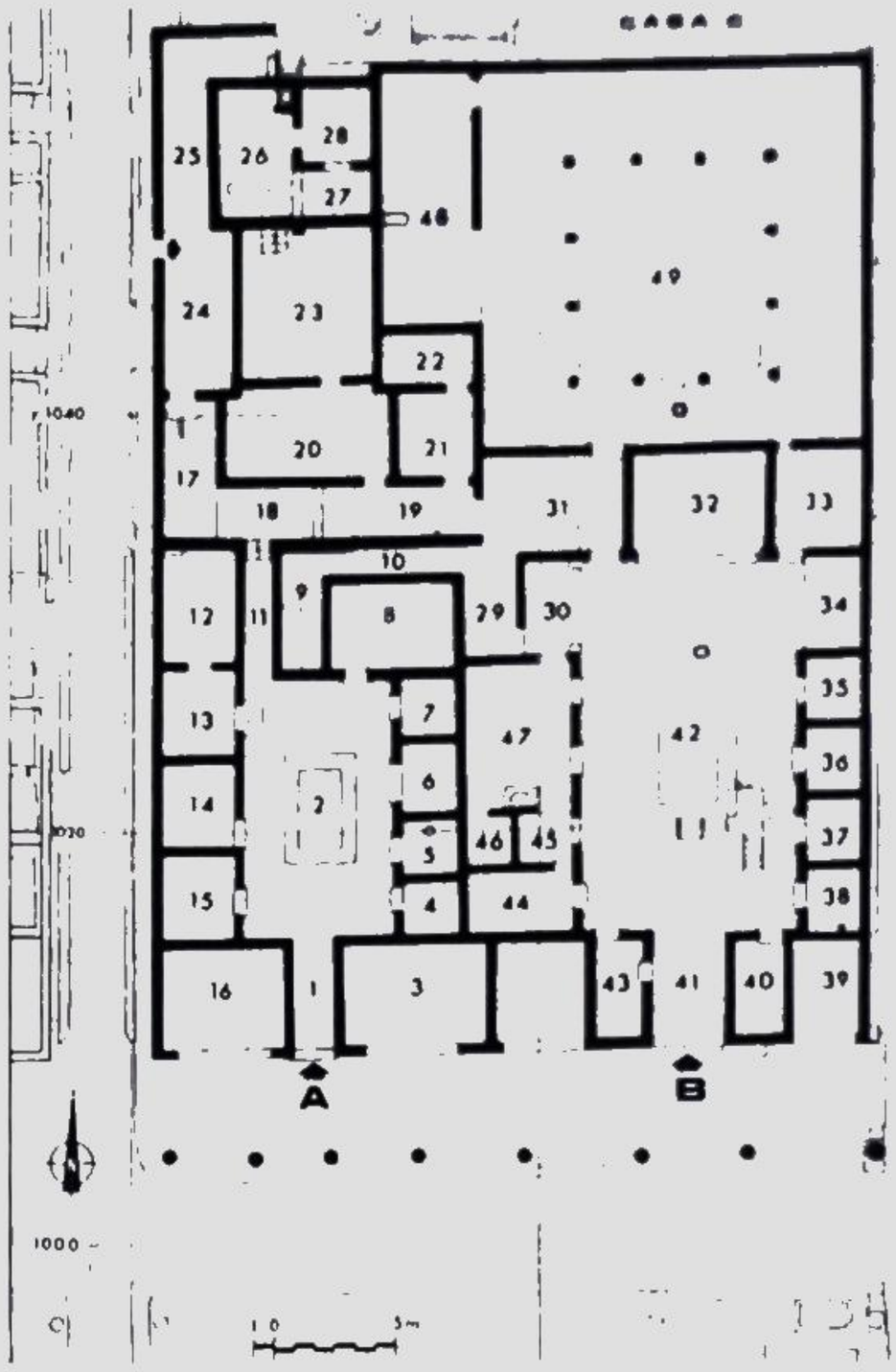


Fig. 61. Paestum: atrium houses directly to the west of the forum entrance (from Lemaire and Robert 2000, 160 fig. 3).

- During the period when our four selected colonies were founded (328-273), there appears to have been some consistency in how Roman planners designed Latin fora and their immediate surrounds. They created large rectangular fora and laid out long, narrow *insulae* directly along their flanks intended for both *tabernae* and the development of political and cult architecture.
- Immediately beyond this, specific *insulae*, or portions thereof, were intended for houses belonging to colonists of the highest property-class. When circumstances allowed, these properties were placed on the high ground, so as to be more elevated than houses of the lower property-classes.
- Because élite properties ideally should also be in the vicinity the forum, this could lead to the placement of the forum itself in a relatively elevated position.
- If the status of *domus* was enhanced by their proximity to the forum, a problem of perceived disparity arose since they could not all be equidistant from the market-place. To compensate for this, when possible, the *domus* which were farther away from the forum were set on more elevated terrain than those close to the forum. This enhanced the perceived status of the somewhat more distant properties.

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31 Bragantini in ead. *et al*. 2008, 67-70.

32 There is some sign from the archaeologically less-well-known sites that they could have high-lying fora: see p. 57 with n.30.

33 Some topographical situations barred the possibility of high-situated fora, as at Cora (303): Lackner 2008, 187-89 and 379. The importance of situating the forum against the streets from the main gates might have overridden other considerations. Cora, Setia and Signia, all pre-338 Latin colonies, had relatively low-lying fora: Lackner ibid. 255.

These hypotheses need to be tested by archaeological investigation. They reflect a planning ideology, the realisation of which was complicated by several factors.

It is first necessary to understand something of the ratio of the highest property classes to the lowest ones. For the foundation of the Latin colony of Copia (193 B.C.), it is reported that one-tenth of the colonists were *equites*.[34] Although one cannot expect the ratio to have been fixed, one can assume that a colony's cavalry would have been vastly outnumbered by its *pedites*.[35] The first problem is therefore that not every Latin colony could have had all the houses belonging to the highest property-classes near the forum — or indeed within the walls. Most of the Latin colonial towns were simply not large enough to house the numbers of families the sources report were sent (see further pp. 171-72).[36] The original contingent of colonists sent to Cosa, for example, has been estimated conservatively at 2,500,[37] and there was certainly insufficient space for that many houses in the intramural area.[38] If, for the sake of argument, we assume that one-tenth of the settlers were *equites*, this would signify that 250 should have lived in atrium houses. From the reconstruction of élite properties at Cosa by Fentress (fig. 59), the problem is immediately apparent. She has placed (hypothetically) a mere 24 atrium houses and 189 smaller properties within the walls. As many as 90% or more of the colonists must have lived outside the town walls. Since both large and small houses belonging to the mid-Republican phases have been documented, it is clear that the urban area was not preserved exclusively for dwellings of the highest property class.

There is insufficient data to know whether the proportion of large to small houses in any Latin colony approximated the actual ratio of *equites* to *pedites* within the original colonial population. As the urban area of Cosa was very small when compared to other Latin colonies, this phenomenon may have been particularly pronounced there, but the urban populations of other colonies are likely to have represented only fractions of their total number of citizen families. Who, then, was given a plot inside the walls, and why? It may have been decided by a *sortitio* (drawing of lots), a process used to apportion holdings to the colonists and perhaps also for house-plots.[39] Perhaps the three commissioners from Rome who oversaw the foundation had some influence on the selection (see pp. 84-85).

It is also unlikely that a town would develop over the long term with its aristocratic residences neatly grouped together. As time went on, the political landscape will have changed, with some leading families emigrating, new ones immigrating, and others dying out.[40] New houses could be built only where land was available, and this would not always be where their owners wanted them. At Alba Fucens, two large Republican houses were built at a considerable distance from the forum on the same hill as one of the sanctuaries, but they were situated on relatively high ground. A similar observation can be made about the two recently-excavated standard atrium houses at Norba. A good understanding of the settlement's occupation chronology has still to be established, but the 2nd-c. houses are unlikely to have been placed within a zone created for the higher property class during the town's original planning. The *domus* are situated some distance from the forum but lie on the important street leading to the minor acropolis, on the slope directly outside its enclosure.[41] At Herculaneum, as Wallace-Hadrill comments, some élite residences were a considerable distance from the forum;[42] that of M. Nonius Balbus, for example, was on the seafront.

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34 Livy 35.9.7-8.
35 Tibiletti 1953; Bandelli 1988, 108-9; Càssola 1988a, 11; Gabba 1988.
36 La Regina 1970-71, 451-52; Tozzi 1972, 16; Frederiksen 1976, 342; Garnsey 1979, 13-15; Pelgrom 2008.
37 Brown 1980, 16; Torelli 1991, 49. Others have suggested 4,000: Salmon 1969, 38 and 60; Dyson 1978, 258-60; Celuzza 2002a, 105.
38 Salmon 1969, 38; Brown 1980, 18.
39 Gargola 1995, 95-98, especially 97.
40 Cf. Hopkins and Burton 1983.
41 Carlora *et al.* 2008, especially 228.
42 Wallace-Hadrill 1994, 129.

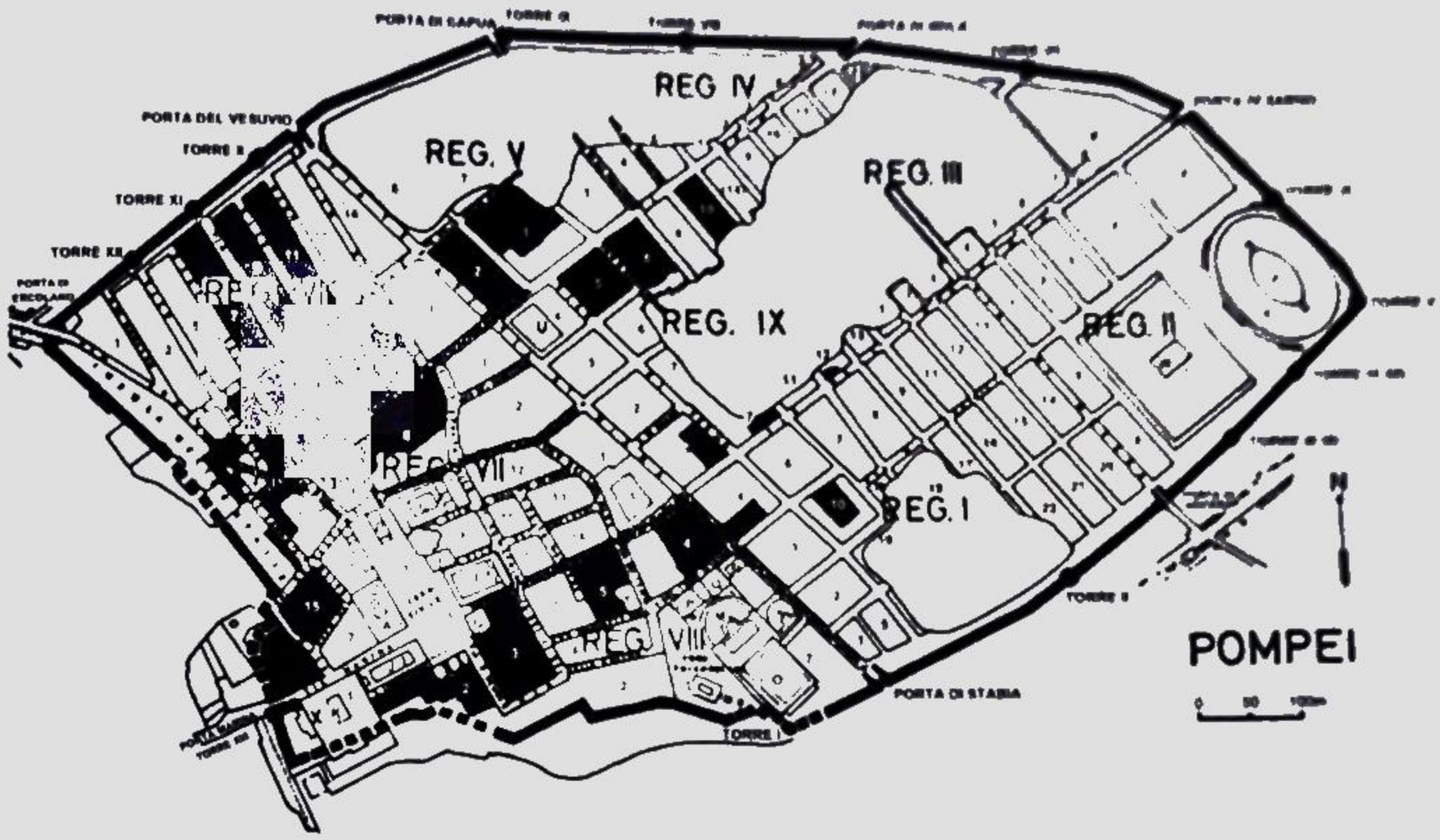


Fig. 62. Pompeii in the 2nd c. Dark areas represent élite housing (after Lauter 1975, 150 fig. 136).

He was a rich patron but had no direct connection with local politics. Wealthy residences were not necessarily associated with those seeking office. Herculaneum prompts the question of whether not just Latin colonies but other Roman towns too were planned in this way during the Republic. Despite the supposed proximity of the excavated residential *insulae* of Herculaneum to its forum, no sign of zoning by social distinctions has been discerned.[43] This might be due to fragmentation of such a scheme by A.D. 79, but the urban expansion of Herculaneum is believed to have occurred quite late, during the 1st c. when it became a *municipium*. The situation there may have something to do with the absence of public buildings from the Late Republic,[44] or it may simply be that the urban élite, those involved in local politics, resided outside the documented area but still close to the forum.

The town which permits the best overview of its layout is Pompeii. I proposed above (p. 130) that the types of houses being built there from the late 3rd c. onwards indicate that the Romans were driving the urbanisation. If so, did they leave some trace of this aspect of their planning ideology? Here the results appear to be more positive. Unlike the *ex novo* Latin colonies, Pompeii's urban fabric is believed to have developed in stages over time.[45] This would make it unlikely that a new urban élite settled in the town as a discrete unit in one instant. Thus we should not expect that their residences were ever neatly grouped, and by A.D. 79 the distribution of large properties will have become still further fragmented. Nevertheless, there seems to have been a particular concentration of residences belonging to the urban élite in *Regio* VI. K. Peterse and J. de Waele have argued that the oldest houses of the standard atrium type are to be found here.[46] As *Regio* VI is outside the *Altstadt*, its street grid and houses belong to the urbanisation taking place from the 4th c. onwards. Further, this area lying just north of the forum is more elevated with respect to the forum. The large properties of *Regio* VI follow our model of being situated both near the forum and on the high ground. Without making his methods transparent, H. Lauter searched for "patrician and equestrian palaces" of 2nd-c. Pompeii based on the recognition of Hellenistic architecture

43 Dickmann 2007, 422-23.
44 Cf. ibid. 433.
45 Pesando 1997, 183-87; Geertman 2007.
46 Peterse and de Waele 2005, 217-18.

and decoration.[47] The plan he produced is of interest (fig. 62): he saw a concentration of élite residences in *Regiones* VI and VII close to the forum and a particularly well-defined group of *insulae* to its north (*Reg.* VI, 6-13). This is not to say that *Regio* VI was exclusively an élite zone (note that it was first defined as a discrete area in the 19th c. by G. Fiorelli, who was responsible for organising the 9 *Regiones*).[48] In *Regio* VI there were also houses derived from the *prostas* type, such as the House of the Vestals.[49] The thorough investigation of the structures on one of these *insulae* (*Reg.* VI, 10) reveals that there was a considerable span between the construction of the earliest (extant) house on the block and the moment when it attained its full complement of structures,[50] reflecting piecemeal urbanisation. The dwelling deemed to be the oldest on the block (Casa del Naviglio) is, however, of the standard atrium type, and it occupies the plot closest to the forum. The link between the urban élite and *Regio* VI continued to A.D. 79 since we then find a row of the largest and wealthiest properties (e.g., Casa del Fauno, Insula Arriana Polliana) along its S edge, the area nearest the forum.

At Falerii Novi, the magnetometry and field surveys might indicate that such a scheme also existed there. The largest houses are believed to have been grouped directly to the north and south of the forum.[51] These areas yielded the greatest quantity of high-status building material found outside the forum,[52] although the longevity of occupation here should be borne in mind.

It has been observed that the urban élite of some provincial towns of the Empire had houses near the forum[53] since "the forum was the centre of political as well as commercial life, and in any Roman town some (but not all) of the political élite could be expected to live in its close proximity".[54] I would argue that this dates back to the 4th c. when *ex novo* Latin colonies were physically *designed* during the initial planning phase to have large properties in the vicinity of the forum; likewise that the natural terrain of those sites which offered such a possibility was exploited to ensure that the élite zones were more elevated than houses of the lower classes. Within Greek cities, by contrast, agoras are to be found in low-lying positions, presumably to be more accessible to traffic entering the city gates (see p. 57).

The metropolitan model

What vital function was fulfilled by zoning élite property near the forum, and whence was it derived? It is very likely that Rome provided the model for this aspect of Latin colony design. Support comes from the literary sources that indicate that the Palatine and Velia were favoured by statesmen for their *domus*. The Velia is linked to the residences of Tullus Hostilius and Valerius Publicola by the Late Republican and Augustan traditions.[55] In earlier times the Capitol may have had *domus* on its slopes. After the controversial episode involving M. Manlius, whose house is said to have stood on the site of the future temple of Juno Moneta, patrician *domus* were forbidden to be constructed on the Capitol.[56] The Palatine hill, however, has the strongest associations with the homes of statesmen. The only mid-Republican owner known to us is M. Vitruvius Vaccus.[57]

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47 Lauter 1975, 147.
48 Foss 2007, 34.
49 Cf. Jones and Robinson 2007.
50 Coarelli and Pesando 2006b.
51 Keay *et al.* 2000, 19-21, 39-42 and 88. Millett (2007, 73-74) suggests that the division of lots on some *insulae* can be made out and that their surface areas demonstrate a degree of regularised differentiation. I admit to having some difficulty in reconciling the reconstruction of how the *insulae* were divided (his fig. 2, A) with the plan based on the magnetometry data (his fig. 1).
52 Keay *et al.* 2000, 72.
53 Thébert 1987, 341-43.
54 Wallace-Hadrill 1994, 129.
55 Cic., *Rep.* 2.31.53; Dion. Hal., *Ant. Rom.* 5.19.1; Livy 2.7.5-12.
56 Livy 6.19-20; De Albentiis 1990, 63.
57 Livy 8.19.4.

Livy states that he was from Fundi, not Rome, but infers that he was a man of distinction because he owned a house on the Palatine. The association between *domus* and the Palatine in the literary sources is strongest in the Late Republic. The Palatine homes of Late Republican politicians have been frequently discussed.[58] Augustus chose the Palatine for his residence and subsequent emperors invested immense sums on vast palaces that re-shaped that hill.[59]

Archaeology supplies little information regarding housing on the Palatine during the mid-Republic. It can be glimpsed only occasionally.[60] The controversy surrounding A. Carandini's 6th-c. houses reminds one of the risks of over-interpreting the intricate and disorderly web of foundations that have survived.[61] We are thus heavily reliant on the literary sources for understanding the nature of the Palatine, but they are rich. Passages in Horace and Martial led T. P. Wiseman to remark: "it was normal, of course, for the houses of great men to be high and dominating".[62] By the Augustan period, residence on the Palatine could be associated with the divine.[63] It is perhaps not surprising that the natural topography was employed to reflect Rome's class divisions in a physical sense.[64] The homes of the wealthy should be on display, and visible to as much of the *populus* as possible.[65] Cicero's house could be seen from almost any part of the city;[66] it was built with this in mind by M. Livius Drusus so that his daily activities could be observed.[67] Not only politicians but other wealthy individuals sought to live on the Palatine: a 3rd-c. banker, L. Fulvius, was able to look out onto the Forum from his verandah.[68]

Livy's report of the 4th-c. Gallic sack also refers to houses belonging to statesmen in the immediate vicinity of the Forum.[69] Some *domus* stood very close to the edge of the Forum until the first half of the 2nd c. We hear of them when they came to be demolished to make way for the first basilicas in the early 2nd c.[70] During his censorship Cato purchased the *atria Maenium et Titium*, which were then razed in preparation for his Basilica Porcia.[71] Based on Brown's interpretation of the atrium houses on the Cosan forum, Coarelli and Torelli see these as *atria publica*.[72] Literary references to atria with public functions exist, such as the *atrium Sutorium*,[73] *atrium Libertatis*,[74] *atria Licinia*,[75] and the aforementioned *atrium publicum*, but their proximity to the Forum is not precisely established. Of these, two had gentilicial epithets (*Licinia, Sutorium*), suggesting they were originally constructed as *domus*.[76] The *atrium regium* may be placed on the Forum near the end of the

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58 *LTUR* II, 329 (N. Purcell); Tamm 1963, 28-43; McKay 1975, 67; Royo 1987; id. 1999, especially 75-117; Wiseman 1987; De Albentiis 1990, 379; Wallace-Hadrill 1994, 129-31; Patterson 2000, 260-62; Gros 2001, 72-77; Mouritsen 2001, 136.

59 *LTUR* IV, 22-38 (E. Papi).

60 For a review of the archaeological evidence, see *LTUR* IV, 22-38; Royo 1999, 9-117. For Late Republican house remains on the Palatine, see Carettoni 1956-57; Carandini 1986, 263-68; id. 1988, 359-87.

61 Moormann 2001; see also pp. 124-26.

62 Wiseman 1987, 398; Hor., *Carm.* 3.1.45; Mart., *Epig.* 1.70.12.

63 Ov., *Met.* 1.171-76.

64 Wallace-Hadrill 1994, 129; Mouritsen 2001, 136.

65 Tamm 1963, 29; Wallace-Hadrill 1994, 5; Hales 2003, 42-43.

66 Cic., *Dom.* 100.8.

67 Vell. Pat. 2.14.3.

68 Plin., *NH* 21.8.3.

69 Livy 5.41.4.

70 Livy 26.27.2; Nünnerich-Asmus 1994, 5-10; Wallace-Hadrill 1994, 130; Welch 2003, 15-19.

71 Livy 39.44.7.

72 *LTUR* I, 135 (F. Coarelli); Coarelli 1985, 45; Torelli 2007, 124-26; cf. Welin 1953, 179-87; see also p. 139.

73 Where the procedure of the *Tubilustrium* occurred, tentatively placed near the Argiletum: *LTUR* I, 137 (E. Tortorici).

74 A censorial archive mentioned by Cicero (*Att.* 4.16) as a topographical reference point relating to the extent of Caesar's planned new forum: *LTUR* I, 133-35 (F. Coarelli).

75 Auction halls located by Cicero (*Quinct.* 12.25) near the entrance to the Macellum, therefore behind the Basilica Aemilia: *LTUR* I, 132 (E. Tortorici); Coarelli 1983a, 32.

76 Torelli 2007, 125-26.

3rd c.,[77] which M. Gaggiotti plausibly situates in the area of the subsequent Basilica Aemilia.[78] No sources refer to the building's form or function, but one may assume that it had some kind of public rôle.[79] With the exception of the *atrium regium* and indeed the *atrium Vestae*, it may be argued that the remaining references to atria directly on the Forum describe *domus*. Fentress argues from two later passages that the *atrium Maenium* bought by Cato was a private house.[80] The position of the Basilica Porcia is reconstructed as adjacent to the Curia Hostilia,[81] showing just how close to the edge of the Forum these *domus* must have been. The house of P. Africanus must also have been directly on the SW edge of Forum; it was purchased by his son-in-law, Ti. Sempronius Gracchus, during his censorship of 169 to make way for the Basilica Sempronia, which came to occupy this part of the Forum's border.[82]

It is not possible to reconstruct the exact physical relationship these *domus* enjoyed with the Forum. The *tabernae veteres* lining its SW border perhaps as early as the regal period[83] might have survived until the 1st c.[84] The NE edge had a row of *tabernae* which were first recorded as butchers' shops (*lanienae*) but apparently became *argentariae* in the second half of the 4th c.[85] They are reported to have been destroyed by the great fire of 210 B.C.[86] and then rebuilt as the *tabernae novae*, behind which the Basilica Fulvia (Aemilia) was constructed in 179.[87] Such large properties as existed on the SW and NE sides of the Forum must have stood behind these *tabernae*. The preparation of the site for the Basilica Porcia necessitated the destruction of four shops and two houses. Because the standard atrium plan incorporates two street-front rooms that often functioned as shops, some have suggested that these *tabernae* were incorporated into the façade of two such atrium houses.[88] Similarly, the purchase of the *domus* belonging to P. Africanus in relation to the Basilica Sempronia project refers to the purchase of adjoining shops.[89] Yet since *tabernae* are known to have lined other sections of the Forum edge, it is possible that they were not appended directly to the houses but stood in front of them.

The origin of the forum layout in Latin colonies

By the 3rd c., the Forum Romanum comprised an area with *tabernae* along three sides and atria beyond,[90] along with major monuments such as the temples of the Dioscuri and Saturn and the Comitium.[91] The basic scheme is of shops defining a considerable length of its border, with *domus* immediately behind them. The slopes of the Palatine southeast of the Forum were also supposedly covered with houses. The close relationship between *domus* and the Forum Romanum prompted N. Purcell to conclude: "The forum, then, must be understood, with the space around the Capitoline temples, as a complement to the domestic world".[92]

The Forum layout of the mid-Republic demonstrates significant coherence with the scheme reconstructed for the Latin colonies. Although the extent of Greek influence on early Roman

77 Livy 26.27.1-4; 27.11.16.
78 Gaggiotti 1985a; 1985b; 2004.
79 Cf. Zevi 1991b; Welch 2003.
80 Hor., *Sat.* 1.3.21; Ps.-Asc. *ad* Cic., *Div. Caec.* 50 (201 ed. Stangl); Fentress *et al.* 2003, 23.
81 Coarelli 1985, 59-63.
82 Livy 44.16.10.
83 Coarelli 1985, 145 and 149-52; Morel 1988; Baratto 2003, 68.
84 *LTUR* V, 15 (E. Papi).
85 Coarelli 1985, 140-42; *LTUR* V, 14-15 (E. Papi).
86 Livy 26.27.2.
87 Livy 40.51.5.
88 Boëthius 1934, 164-65; Welin 1953, 200; Wallace-Hadrill 1994, 130; Gros 1996, 237.
89 Livy 44.16.10; Wallace-Hadrill 1994, 130.
90 Coarelli 1983a, 149; *LTUR* II, 326-27 (N. Purcell); cf. Lehmann-Hartleben 1938, 291-92.
91 Coarelli 1985; cf. pp. 72-73.
92 *LTUR* II, 329 (N. Purcell).

urbanism was considerable, the placing of long, uniquely-sized *insulae* against the forum's edges, and the planning of residential areas for larger properties just beyond, have no traceable Greek origin (see pp. 58-62). The archaeological evidence from the colonies is so compatible with the literary evidence for the relationship between *tabernae* and surrounding atria in the Roman Forum that it would seem this aspect of colonial design was derived from the topography of the political heart of Rome. The colonial ideology of placing houses of the political élite in high positions seems also to have been adapted from the capital. It is thus possible to conclude, as Fentress and Torelli have tentatively proposed for Cosa,[93] that the physical form of the Forum Romanum in this respect was the model for colonial fora during the period when the four Latin colonies were founded (328-273 B.C.).

Determining the antiquity of the Roman model is a perilous exercise due to our dependence on later literary sources. The presence of *tabernae* on the Forum is attested by Livy for the 5th and 4th c.[94] Did this arrangement develop organically over time? According to the Augustan tradition, it was planned this way from the beginning by Tarquinius Priscus:

> ab eodem rege et circa forum priuatis aedificanda diuisa sunt loca; porticus tabernaeque factae.
> This king also divided the ground round the Forum for private buildings; porticoes and shops were put up.[95]

Livy's reference to porticoes is anachronistic:[96] no archaeological evidence for the *porticus* predates the 2nd c.[97] The birth of the Forum then becomes the setting aside of land for houses and shops, in that order. The first archaeological signs of occupation of the Forum date from around the beginning of the 6th c.[98] Potentially, then, the model could be archaic in origin. But why should private houses have had such a significant early connection with the very public Forum?

The semi-public aspects of the *domus*

This leads us to delineate the 'semi-public' aspects of the *domus*, since the domestic atrium was conventionally a meeting-place to which public access was partly restricted. Literary sources of the Late Republic and Early Empire are a rich source of information on the nature of these meetings, revealing how the semi-public character of the *domus* was linked with developments in public architecture and activities on the Forum. The results of the following analysis are thus only directly relevant for the metropolis: an important *caveat* is that we should not assume that the significance of *domus* in Rome and the activities that took place within them were the same as in the Latin colonies. According to a conclusion reached above, certain metropolitan models appear to have been adapted for the colonial context rather than replicated (see pp. 80-81); that means that we should expect both similarities and differences. We possess no equivalent textual sources that could inform us of the rôle of colonial *domus*. The initial aim here is to understand the situation in Rome so as to better comprehend the model that was adapted. Later I will return to the colonial *domus* and discuss the relevance of the metropolitan model for our understanding of them and their presence near fora.

In the analysis of the textual sources I consider the appearance of the *domus*, its status, and the activities that took place within. I also examine the polarising terms 'public' and 'private'. My intent is not to diminish the house's significance as a residence but to highlight its other characteristics and functions. Note first that the term '*domus*', as well as meaning the physical structure, was also inseparable from the Roman concept of family:[99]

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93 See n.1 above; cf. Pesando 1999.
94 Livy 3.27.2, 9.6.8 and 4.31.99.
95 Livy 1.35.10; cf. Dion. Hal., *Ant. Rom.* 2.67.4.
96 Ogilvie 1965, 201-8; cf. Lackner 2008, 268.
97 Nünnerich-Asmus 1994, 26-47.
98 Coarelli 1985, 140; Ammerman 1990, 643-45; Cornell 2005, 55.
99 Saller 1984; Thébert 1987, 407.

> *Domus* was used with regard to household and kinship to mean the physical house, the household including family and slaves, the broad kinship group including agnates and cognates, ancestors and descendants, and the patrimony.[100]

The evidence linking Roman public life to the house implicitly associates it with the familial meaning of the word *domus*.

Public *versus* private

Vitruvius (6.5.1-2) makes a distinction between the private and public parts of the atrium house, although there is a tendency nowadays to regard the Republican situation as more complex than Vitruvius describes.[101] The house was a private residence; the owner had control over who entered and when, and from this perspective all the spaces could be seen as private.[102] On the other hand, the public activity within the house meant that the house was often open to visitors. Plutarch would have us believe that Cicero never turned anyone away because he had no porter at his door.[103] Cicero himself says that he did have a porter who, on occasion, did not prevent any visitors from entering his house.[104] Visitors were allowed in the house by invitation – if we consider an open door to be an invitation. How deeply they penetrated the rooms within would depend on the *patronus*. If he was not at home, we can imagine his house quickly became very private. Wallace-Hadrill explains it succinctly:

> We are dealing rather with a spectrum that ranges from the completely public to the completely private, and with an architectural and decorative language that seeks to establish relativities.[105]

Here we will assume that the most public parts of the atrium house are those indicated by Vitruvius:[106] the *vestibulum*, the atrium, the *tablinum* and the peristyle. To these we may add the *alae*, adjoined to the atrium with no physical partition.

The *salutatio* and its relationship to the Forum

Above all else, it is the business of patronage and the morning *salutatio* that are associated with the public activity of the *domus*. However, these personal interactions were often linked with other forms of public activity on the forum. Patronage was based on personal interaction and took the form of the exchange of services of some kind.[107] Modern scholarship does not doubt that clientship was an ancient institution, as Dionysius insists,[108] possibly with Etruscan origins.[109] The sources indicate that patron-client interaction was occurring in houses during the Late Republic. Most scholars believe that this activity was traditionally centred on the *atrium-tablinum* arrangement. Like patronage itself, these elements of the house may have developed from archaic precedents, such as those found in Etruscan contexts (see pp. 122-27), yet direct evidence is sparse for linking the business of patronage to a domestic setting in earlier periods.

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100 Saller ibid. 342.

101 Coarelli 1983b, 191-92 and 215-17; 1984b, 152-54; 1989a; Wiseman 1987, 395-96; Torelli 1988a, 113; Wallace-Hadrill 1988, 58-76; 1994, 10-12 and 17-37; Zaccaria Ruggiu 1994, 137; 1995, 370-77; Hales 2003, 1-14 and 36-39.

102 Thébert 1987, 353.

103 Plut., *Vit. Cic.* 36.4.

104 Cic., *Planc.* 66.2.

105 Wallace-Hadrill 1988, 58; cf. Zaccaria Ruggiu 1995, 376.

106 Vitr. 6.5.1-2.

107 Saller 1982, 1; Eilers 2002, 6-9, especially 6, n.31.

108 Dion. Hal., *Ant. Rom.* 2.9-10; Rouland 1979, 24-110; Brunt 1988, 400-5; Drummond 1989; Cornell 1995a, 289-92; Momigliano 2005, 176.

109 Flower 1996, 218, n.147.

Our lack of information regarding an essential Roman institution could be because of its extra-legal character:[110] it was an everyday activity based on personal interaction and trust (*fides*). A rare and brief description is provided by Cicero, describing a patron from an earlier time:

> ambulantis et in solio sedentis domi sic adibatur, non solum ut de iure civili ad eos, verum etiam de filia conlocanda, de fundo emendo, de agro colendo, de omni denique aut officio aut negotio referretur
>
> Walking about (the Forum) and sitting at home on his throne, he was approached, not just about questions of law, but about marrying a daughter, buying a farm, cultivating the land, in fact any point of social obligation or business.[111]

Cicero states that the same activity could take place both in the domestic environment and on the Forum Romanum, which contrasts with the focus of modern scholarship upon the house as the setting for patronage. This passage establishes a link between the activities in the *domus* and those on the Forum.

With regard to the *salutatio*, there are numerous references to the advantages of having a house near the Forum. In the Late Republic, a house in the vicinity of the Forum was considered a catalyst for receiving more visitors. This is said to be why Marius moved there.[112] Cicero moved to the Palatine for the same motive.[113] Cicero defends Caelius' move to the hill because it was a way for him to receive more visitors and it made it easier for him to call on the houses of others of high rank.[114] In both receiving visitors and making calls, Caelius provides an image of dynamic interaction between houses, further reminding us that not all visitors were of the same status.[115] According to Seneca, C. Gracchus and Livius Drusus were the first to meet with callers to their houses in the order of their perceived importance.[116] Polybius implies that in the mid-2nd c. it was normal for young aristocrats both to visit the houses of the nobility and to spend time in the Forum to improve their popularity.[117]

Another benefit of having a house near the Forum came during canvassing. Some of Pompey's followers are reported, after believing Caesar virtually defeated, to have sent men from Greece to Rome in order to secure houses close to the Forum because they wished to stand for office.[118] Cicero believed that the house built by Gnaeus Octavius on the Palatine won him extra votes in his campaign for the consulship.[119] A house close to the Forum maximised popular following.[120] To live near the Forum was tied to the enhancement of *dignitas*.[121] Yet the Roman concept of social standing extended beyond politics — witness the house of the banker, L. Fulvius, overlooking the Forum (see p. 147).

Since the participants in the *salutatio* came from different social classes, the *dominus* probably had to respond to a broad spectrum of requests and problems, including the business of Roman politics. In a letter to Atticus, Cicero's response to a comment his friend had made to him (one aimed at reassuring Cicero during the disquieting period of Caesar's dictatorship) emphasises both the political aspect of the *salutatio* and the bond between house and Forum:

> sed videlicet meis litteris respondisti, ut de foro et de curia. sed domus est, ut ais, forum. quid ipsa domo mihi opus est carenti foro?

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110 Badian 1958, 1-153; Saller 1982, 5; id. 1989, 52; Brunt 1988, 406-7; Drummond 1989, 101; Rich 1989, 119.
111 Cic., *De Or.* 3.133.8-134.1 (transl. A. Wallace-Hadrill).
112 Plut., *Vit. Mar.* 32.1.
113 Plut., *Vit. Cic.* 8.6.
114 Cic., *Cael.* 18.
115 Saller 1982, 9-24; id. 1989, esp. 57-58; Brunt 1988, 420; Flower 1996, 218; Eilers 2002, 8.
116 Sen., *Ben.* 6.34.1-2; Rouland 1979, 266-68; Zaccaria Ruggiu 1995, 373-75; Royo 1999, 13-15.
117 Polyb. 31.29. 8; cf. Saller 1982, 129.
118 Plut., *Vit. Pomp.* 66.3.
119 Cic., *Off.* 1.138-39.
120 Patterson 1992, 200; Wallace-Hadrill 1994, 131.
121 Wallace-Hadrill 1988, 44-47; Bell 2004, 183.

> But I find you have simply answered mine, as with regard to the Forum and the Curia. But my house, you say, is the Forum. What do I want with a *domus* at all if I can't go to the Forum?[122]

According to Appian, Livius Drusus was able to conduct most of his official duties as tribune in the atrium of his home after he realised there was a plot to assassinate him.[123] There are several other indications that business conducted during house visits was considered part of the *res publica*. The first is Cicero's statement:

> meaque privata consilia publici quoque casus comprobaverunt, ut etiam summa res publica mihi domi fuerit gerenda et urbs in urbe servanda.
>
> And public events have sanctioned my private counsels in such a way that even at home I have had to attend to the general interests of the Republic, and to preserve the city while in the city.[124]

We can support this statement by examining how meetings in houses could affect decisions in the Senate about foreign communities. After Cretan pirates had defeated Marcus Antonius in *c.*71, a Cretan embassy of 30 men was sent to Rome to appease the Senate.[125] They visited the houses of individual senators to plead their case before being brought before them in the Curia. This strategy met with success since the Senate voted to absolve the Cretans of charges brought against them and proclaim them allies of Rome, although their hopes were ultimately dashed by a tribunician veto. The delegation's first step at Rome was to visit the houses of influential senators. The tradition of the *salutatio* provided an opportunity for lobbying, which subsequently could directly influence discussion and voting in the Curia.[126]

This process is confirmed by a non-Roman source: an inscription from Teos recording a decree of Abdera.[127] Dating either from the 160s or possibly the 80s B.C.,[128] it is an honorary inscription for two men sent to Rome by Abdera to counteract an appeal by a Thracian king, Cotys, who desired Roman support for his claim on a part of Abdera's territory.[129] The text emphasises the diplomatic efforts made by the pair in Rome, which consisted of attempting to win over senators by τῆς καθ' ἡμέρα[ν γενομέν]ης ἐφοδείας ἐπὶ τῶν ἀτρίων ('daily calls at their atria'). In the city they also enlisted the help of their patrons. The words 'patron' (πάτρων) and 'atrium' (ἀτρίον) are transliterated, which shows the absence of equivalent concepts in Greek. Some of the senators were against their cause but, so the inscription alleges, were won over by the ambassadors, indicating that they were visiting other influential politicians in addition to their patrons. One did not have to be a client to appeal to a *patronus* during the *salutatio*.[130]

An account in Livy suggests that this form of lobbying was established by the 3rd c. It concerns an appeal by a delegation from Syracuse regarding Marcellus' consulship in 210 B.C.[131] The consuls Laevinius and Marcellus drew lots to decide their commands: Marcellus got Sicily, whilst his colleague was to continue the campaign against Hannibal. Because of Marcellus' treatment of Syracuse during its capture, the delegation undertook to persuade the Senate that he should not be allowed back to the island. They undertook this by:

> circumibant enim senatorum [domos] cum veste sordida, adfirmantes se non modo suam quosque patriam, sed totam Siciliam relicturos si eo Marcellus iterum cum imperio redisset.

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122 Cic., *Att.* 12.23.1 (transl. E. Shuckburgh).
123 App., *B.Civ.* 1.36.
124 Cic., *Planc.* 66.17-18 (transl. C. D. Yonge).
125 Diod. Sic. 40.1.1-2.
126 See David 2006 for how the interests of the Italian allies (including the Latin colonies) could be served by their links to senators.
127 *Syll*^{3} 656, 21-25; cf. Braund 1989, 137-38.
128 The earlier date is advocated by Robert 1935, 512-13; Hermann 1971; Braund 1989, 137; Flower 1996, 218; and Marek 1997; but it has been disputed by Chiranky 1982 and Eilers 2002, 114-19.
129 Cf. Hermann 1971, 72; Flower 1996, 218; Eilers 2002, 114-19.
130 Cf. Badian 1958, 160, especially n.3.
131 Livy 26.29-30.

> Clothing themselves in mourning garb they visited the houses of the senators and assured each of them in turn that if Marcellus went back to Sicily with the power and authority of a consul they would every one of them abandon his city and quit the island for ever.[132]

Livy places emphasis on the method employed by the Syracusans to achieve their goal by reiterating it:

> hae Siculorum querellae domos primum nobilium circumlatae celebrataeque sermonibus, quos partim misericordia Siculorum, partim invidia Marcelli excitabat, in senatum etiam pervenerunt.
>
> These remonstrances of the Sicilians were made to individual nobles in their own homes, and gave rise to lively discussions, in which sympathy with the sufferers and hostile sentiments towards Marcellus were freely expressed. At last they reached the Senate.[133]

Again we find a sequence of house visits by lobbyists prior to their appearance before the Senate. The Syracusans' efforts led to an agreement that the consuls should exchange their responsibilities: Laevinius went to Sicily, while Marcellus stayed on the peninsula to shadow Hannibal. Evidently agreed without a vote in the Senate,[134] it serves to underscore the point that domestic lobbying could exert great influence.

The doors of houses near the Forum were ajar to some degree to those who wished to bring issues before the Senate and desired to influence the decisions taken. This establishes a link between *domus* and Curia. The recording of the procedure on the Teos inscription suggests it was a convention. D. C. Braund argues that domestic lobbying was undertaken by King Prusias II on his visit to Rome in 167;[135] he suggests that the convention was advantageous for envoys entering Rome because it gave them the opportunity to target senators who might be sympathetic to their cause. Was this opportunity exploited not just by foreign envoys but by other parties who wished to influence political decision-making? The Italian allies would be high on the list of potential users.[136] Appian reports that those in their number who were negatively affected by the agrarian reforms of Ti. Gracchus enlisted the support of Scipio Aemilianus, who intervened on their behalf before the Senate.[137] A senatorial decree of 213 B.C., enacted to curb the increasing popularity of foreign cults in Rome, was apparently initiated because:

> primo secretae bonorum indignationes exaudiebantur; deinde ad patres etiam ac publicam querimoniam excessit res.
>
> Respectable citizens protested in private against the state of things, and ultimately the matter became a public scandal and formal complaint was made to the Senate.[138]

Likewise, C. Gracchus is described as a man who was a more successful leader in his private dealings than on the public stage:[139] his entourage embraced groups that may have sought to exert political pressure through morning visits, not only foreign ambassadors, but *publicani*, artisans, magistrates and soldiers.

F. Coarelli has noted that during the Late Republic an increasing amount of political activity, even fundamental political decisions, were taking place in houses as the other institutions were becoming deprived of their power.[140] Eventually, the most important political decisions came to be taken in the residence of one man: in a sense, the *res publica* was consumed by the emperor's palace. The emperor had morning meetings and received petitions.[141] Political activity in the houses of the

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132 Livy 26.29.3 (transl. C. Roberts).
133 Livy 26.29.5 (transl. C. Roberts).
134 Livy 26.29.9.
135 Livy 45.44; Braund 1989, 138.
136 Cf. Wallace-Hadrill 1989a, 74-76.
137 App., *B.Civ.* 1.18-19.
138 Livy 25.1.9 (transl. C. Roberts).
139 Plut., *Vit. C. Gracch.* 6.4.
140 Coarelli 1983b, 192-99; 1984b, 153; 1989a, 178. See also Patterson 2006b, 139.
141 Millar 1977, 241.

élite had passed through several stages.[142] In early days, decisions reached in the domestic setting were expressed in the form of pledges, but were tied to further discussion and ratification by the Senate. In the 1st c. B.C. one could see the secondary stage of this process, that occurring within the Senate House, as sometimes unnecessary. Under the Principate it became redundant.

In the Republic, the business of patronage seems to have transcended any border between the public and private spheres. In his study of Early Imperial patronage, R. P. Saller placed emphasis on this aspect:[143]

> It is important to note that in the Principate, as in the Republic, aristocratic social roles straddled the public and the private sectors, making it highly unlikely that the reciprocity ethic of private life would not also affect the role of the official. ... The patron-protégé and advocate-client relationships illustrate the point: each has a public and a private aspect which are inextricably linked and which the Romans never tried to separate.[144]

Ideally, the *patronus* was expert in law. The assistance of clients on legal issues is first on the list in Dionysius' description of the patron's rôle.[145] Probably this activity mostly took place in houses. Cicero refers to it as something to do upon retiring from advocacy in the courts:

> ego vero aetatis potius vacationi confidebam, cum praesertim non recusarem, quominus more patrio sedens in solio consulentibus responderem senectutisque non inertis grato atque honesto fungerer munere.
>
> I was counting rather on the holiday that comes with old age. I would be quite willing to sit on a chair in the good old style advising clients on points of law and carrying out the pleasant and respected function of a reasonably active old age.[146]

The seated pose recalls the patron receiving his visitors in the morning.[147] According to Vitruvius, arbitration between clients and even private law suits (*iudicia*) could be held in the house,[148] although we lack earlier testimony for it being home to the latter.[149] Chiefly, however, the Forum Romanum was the setting for trials during the Republic.[150] A core duty of the patron was to provide legal protection for his clients,[151] and the personal relationship between them could assume a more public character if the latter appeared in court. In the early 2nd c. B.C., a summons was sent to the accused and to his patron.[152] In this way a relationship forged by domestic rituals was transferred to the public stage of the Forum, although the relationship between defendant and advocate was not always that of client and patron.[153]

Saller emphasises the limitations of seeing the patronage relationship as simply between those who recognised themselves as clients and patrons: even in the Roman concept of friendship (*amicitia*) an exchange of services was expected.[154] A deeply ingrained system of reciprocity extended up and down the social scale and transcended the boundary between public and private. The latter idea is embodied in Polybius' reference to activities for young nobles intent on a public career: visiting houses, and spending time in the law courts and the Forum.[155] Similarly, Cicero states that visiting private houses was considered important for developing a public career in the courts:

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142 Cf. Coarelli 1989a.
143 Saller 1982, 26-32.
144 Ibid. 26.
145 Dion. Hal., *Ant Rom.* 2.10.1; Brunt 1975, n.40; id. 1988, 415; Drummond 1989, 89.
146 Cic., *Leg.* 1.10.4-8 (transl. N. Rudd).
147 Cic., *De Or.* 3.133; Torelli 1999a, 75.
148 Vitr. 6.5.2.
149 Cf. Tamm 1963, 21-22.
150 Coarelli 1985, 23-27; *LTUR* II, 332-33 (N. Purcell); Welin 1953, 9-110.
151 Saller 1982, 130.
152 Plaut., *Men.* 571-74.
153 Saller 1982, 29; Brunt 1988, 403-5.
154 Saller 1982, 8-39; id. 1989; cf. Badian 1958, 12-13.
155 Polyb. 31.29.8.

facillume autem et in optimam partem cognoscuntur adulescentes, qui se ad claros et sapientes viros bene consulentes rei publicae contulerunt, quibuscum si frequentes sunt, opinionem adferunt populo eorum fore se similes, quos sibi ipsi delegerint ad imitandum. P. Rutilii adulescentiam ad opinionem et innocentiae et iuris scientiae P. Mucii commendavit domus.

Next to that, young men win recognition most easily and most favourably if they attach themselves to men who are at once wise and renowned as well as patriotic counsellors in public affairs. And if they associate constantly with such men, they inspire in the public the expectation that they will be like them, seeing that they have themselves selected them for imitation. His frequent visits to the home of P. Mucius assisted young P. Rutilius to gain a reputation for integrity of character and for ability as a jurisconsult.[156]

Conventions and ceremonies that reinforced the bond between *domus* and Forum

Morning visitors to houses could on occasion follow the *dominus* to the Forum,[157] and there are accounts of a senator or magistrate being accompanied on his way back home.[158] Considered an important element of the *res publica*,[159] the escorts are demonstrations of public support and are linked to the enhancement of *dignitas*. Commuting to and from the Forum in the company of supporters shows that both leaving and returning to the house could be a public event, reinforcing in a ritualised way the association between the *domus* and the public environment of the Forum.

This was emphasised during funerals of the nobility.[160] The funerary procession began at the house of the deceased and proceeded to the Forum, where the oration took place, before the cortège moved to the necropolis.[161] Actors involved wore the *imagines maiorum*, the wax ancestor-masks of forebears who had obtained at least the rank of aedile.[162] The *imagines* were normally on display in the atrium, functioning as status symbols that legitimised the public rôle of the living descendant. Brought to life during the funeral in their journey to the Forum, the masks reveal the fusion of public and private life.

The *domus* and its relationship with public architecture

Vitruvius recommends that the interiors of the houses of office-holders be built in a style similar to public buildings;[163] he even states that basilicas should be incorporated in their houses. The reason for this investment is because of the public activity that took place there:

> quod in domibus eorum saepius et publica consilia et private iudicia arbitriaque conficiuntur.
>
> for in the homes of these people, often enough, both public deliberations and private judgements and arbitrations are carried out.[164]

Scholars have noted the adoption by houses of public architecture,[165] chiefly in the Late Republic when increasing sums were being invested in houses on the Palatine. The most extreme example may be the house of Aemilius Scaurus, situated very close to the Forum.[166] F. Coarelli attempted to reconstruct some of its dimensions based on the elements reportedly employed for the atrium.[167] Columns of over 11 m, previously part of a temporary theatre, supported the roof. Coarelli notes

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156 Cic., *Off.* 2.46-47 (transl. W. Miller).
157 Cic., *Att.* 1.18.1; Cic., *Mur.* 70.10; Plut., *Vit. Aem.* 10.3.
158 Livy 3.26.12, 4.24.7, 8.35.8 and 23.23.9; Dion. Hal., *Ant. Rom.* 7.7.2 and 7.62.2.
159 Bell 2004, 214.
160 Polyb. 6.53-55.
161 Dixon 1992, 135-36; Flower 1996, 91-127; Patterson 2000, 264; Hales 2003, 2.
162 Flower 1996, 1-4.
163 Vitr. 6.5.2.
164 Transl. I. D. Rowland.
165 Tamm 1963, 132-47; Gros 1978, 66; id. 2001, 39-77; Coarelli 1983b and 1989a; Wallace-Hadrill 1988, especially 58-76; id. 1994, 17-37; Zaccaria Ruggiu 1995, 375-77.
166 Coarelli 1989a, 179-80; cf. De Albentiis 1990, 182-89; Gros 2001, 73.
167 Coarelli ibid. 180-86.

the significance of re-use of elements from a public building in a private one. The scale of investment in houses came to reflect political competition as the *domus* took on the proportions and magnificence of public buildings and the dividing line between public and private architecture became blurred.[168] In the *oecus Aegyptius*[169] a double row of columns created three aisles in imitation of the basic design of the basilica; an archaeological example may exist in the *tablinum* of the Casa dell'Atrio a Mosaico at Herculaneum.[170]

The Forum itself first underwent monumentalisation during the 2nd c. The first recorded marble temple in Rome was that of Jupiter Stator in 146 B.C.[171] The arrival of *luxuria* from the East affected both the appearance of the Forum Romanum and the houses in its vicinity. As the city and its population expanded, and as its sphere of influence expanded to include large swathes of Spain, N Africa and the Greek East, the numbers of morning callers to senators' houses increased. In the early 1st c. B.C., the entourage of Livius Drusus was said to include individuals from all Italy,[172] while the Teos inscription demonstrates how far people were willing to travel to join the house visitors. The winners in the power struggles were likely to receive even more morning callers and their houses had to be large enough to accommodate the numbers.[173] In his discussion of the appropriate type of house for a statesman, Cicero emphasises that the house on the Palatine should, in the first place, physically reflect its practical purpose (*usus*).[174]

In earlier times too houses imitated public buildings. The spoils of war were used to adorn the Forum and other public places. Shields were hung on *tabernae* in the Forum at least from the 4th c.[175] Gilded Samnite shields from the triumph of L. Papirius Cursor in 310 were attached to the *tabernae argentariae*,[176] serving as a reminder both of Rome's triumphal tradition and of the general and his *domus*. Also from the 4th c. onwards, war trophies were affixed to houses in the vicinity of the forum on their exteriors[177] and later in their interiors,[178] reflecting the public rôle of the atrium.[179] These spoils were not to be removed when the house came under new ownership;[180] the *monumenta* continued to glorify the memory of ancestors.[181]

The Elder Pliny discusses the tradition of placing honorary statues on fora. At some point[182] clients came to erect such statues within their patrons' houses:

> et in omnium municipiorum foris statuae ornamentum esse coepere propagarique memoria hominum et honores legendi aevo basibus inscribi, ne in sepulcris tantum legerentur. Mox forum et in domibus privatis factum atque in atriis: honos clientum instituit colere patronos.
>
> And statues began to be an adornment in the fora of all municipal towns, and the memory of men began to be perpetuated and honours began to be inscribed on the bases of statues to be read for all time, so that they should not be read only on tombs. Soon a public forum was made in private houses and in halls; the respect of clients began to honour their patrons in this way.[183]

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168 Gros 1978, 66.
169 Vitr. 6.3.9; Wallace-Hadrill 1994, 18-19; Gros 2001, 62 and 65-66.
170 Ward-Perkins 1954, 70; Wallace-Hadrill 1994, 18-19.
171 Situated in the *porticus Metelli*, later called the *porticus Octaviae*: *LTUR* III, 159 (A. Viscogliosi).
172 Sen., *Dial.* 10.6.1.
173 Gros 2001, 73.
174 Cic., *Off.* 1.39.138.
175 Hölscher 1978, 318-24; Nünnerich-Asmus 1994, 8.
176 Livy 9.40.16; cf. 10.39.13 and 10.46.4; Plin., *NH* 35.13.
177 Livy 10.7.9; Suet., *Ner.* 38.2; Prop. 1.16.1-4.
178 Livy 23.23.6; Plin., *NH* 35.6-7; Plut., *Vit. C. Gracch.* 15.1; Saller 1984, 351; Coarelli 1998a, 65; Welch 2006, 105-24.
179 Wiseman 1987, 394-95.
180 Plin., *NH* 35.7.
181 Saller 1984, 351.
182 Probably during the Republic: Coarelli 1998a, 65.
183 Plin., *NH* 34.17.

Scholars see this as a distinctly political act.[184] Lastly, houses of the élite were named after their owners,[185] a tradition probably not unconnected with the practice of naming public buildings and monuments after those responsible for their construction.

From the above it can be seen that the public aspect of the *domus* was changing with the passage of time, but each change has a correlation with some development in the Forum and other public architecture. Whether it was a question of shields, statues, names or magnificence, they had political connotations and could be used to promote families.

The religious aspects of the house

In Saller's investigation into the meanings of *domus*, he found that religion played a part. The term *dii penates* is interchangeable with *domus* in several sources.[186] The household gods, including the Lares and Vesta, also had public cults; the border between public and private becomes blurred.[187] In Archaic times the palace of the king could also be the chief seat of the public cults of the *dii penates*.[188] During the 1st c. B.C., several statesmen made monumental additions of overtly religious character to their houses.[189] The most notable is to Caesar's house (the *domus publica*) during his time as *pontifex maximus*, when a pediment was added, giving it the appearance of a temple.[190] T. P. Wiseman has seen similarities between house and temple in the display of war spoils and statues,[191] and J. Muccigrosso has emphasised some of the religious aspects of the *domus*.[192]

The Late Republican examples have a precedent from the early 3rd c. Virginia is reported to have converted a part of her house, possibly along the *vicus Longus*, into a sanctuary of Pudicitia Plebeia, in deliberate opposition to the existing cult of Pudicitia Patricia.[193] It was thus a political as well as a religious act. This finds a possible parallel at Cosa in the archaeology of the House of Diana. Towards the end of the 1st c. one of its *tabernae* was converted into a public shrine, possibly to Fortuna or the imperial cult.[194] During the 1st c. A.D., the house's garden was transformed into a sanctuary to Diana, with a small temple, and a new doorway was added to the garden wall, allowing direct access to it from a main street.[195]

The *domus* as a public concern

Since the house was so important to a statesman, there is little surprise that its destruction was considered the ultimate penalty.[196] There are several cases of house destruction known during Republican times, many of them referred to by Cicero,[197] but the most famous is Cicero's own house, from his speech on that subject. Except for Publicola's voluntary act of demolishing his own

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184 Hölscher 1978, 324-44; Coarelli 1998a, 65; Bell 2004, 186.
185 Wiseman 1987, 396; Nünnerich-Asmus 1994, 5.
186 Saller 1984, 350-54.
187 *RE*^{2} VIIIA.2, cols. 1760-66 (Stein and Reidinger).
188 Coarelli 1983b, 200.
189 Ibid. 200-17.
190 Weinstock 1971, 276-81; Wiseman 1987, 396.
191 Wiseman 1987, 395-96.
192 Muccigrosso 2007, 183-86.
193 Fest. 270L; Livy 10.23.6; *LTUR* IV, 168-69 (F. Coarelli).
194 Fentress *et al.* 2003, 36-37 and 156-59.
195 Ibid. 38-55.
196 Cic., *Dom.* 101.
197 Sp. Cassius: Livy 2.41.11. Sp. Maelius: Dion. Hal., *Ant Rom.* 12.1-4; Livy 4.16.1. M. Manlius Capitolinus: Livy 8.20.8. M. Vitruvius Vaccus: Livy 8.20.8. L. Appuleius Saturninus: Val. Max. 6.3.1. M. Flaccus: Val. Max. 6.3.1, Cic., *Dom.* 102. For a discussion, see Flower (2006, 44-50), who questions the historicity of house destruction in the Middle Republic. There was a comparable practice in Greek society: Connor 1985; Flower 2006, 18-20.

house,[198] the others, including Cicero's, share similar characteristics: the houses were of men who had been declared enemies of Rome, and their properties were confiscated and then demolished. Except for Cicero, the individuals met violent deaths prior to the destruction of their homes. The removal of a family's *domus* was tantamount to a *damnatio memoriae*, and the empty plot was left as a reminder of the penalty to future generations.[199] All of the cases appear to have involved the Senate in some way. Confiscation and demolition was based on a decree of the Senate in the cases of Sp. Cassius, Sp. Maelius, M. Vitruvius Vaccus and M. Fulvius Flaccus, and the same can be inferred for L. Saturninus.[200] The destruction of Manlius' house on the Capitol led to a ban on patrician houses there enacted by the Senate and the tribal assembly. Cicero's case is more complex because there were irregularities in the procedures that led to the confiscation of his property, which was why he was able to claim it back.[201] He emphasises the illegality of the seizure partly because it was not authorised by the Senate and people, nor was it the result of a successful prosecution.[202] His estate was returned to him by a Senate decree.[203] That voting was required in the Curia and assemblies shows to what extent a politician's power was seen to rest in the physical structure of his house.

There is also written testimony to the public importance of élite residences at Taranto. Part of a decree from the 1st c., the *Lex Municipii Tarantini*, dictates that the townhouses of decurions should be roofed with not less than 1,500 roof tiles.[204] Decrees affecting house construction are not unknown in antiquity. One from Ptolemaic Egypt (118 B.C.) limited the height of houses that were to be reconstructed after a period of conflict.[205] The difference between these two is that the limit in the Egyptian case is one of maximum height, whereas the Tarantine law sets a minimum size. The fact that it applied only to magistrates demonstrates the importance of the domestic environment for the public rôle of the official. E. Gabba has interpreted this statute, along with others from the 1st c. B.C., to suggest that politically motivated measures were taken to encourage the urban residency of magistrates in towns during this period.[206]

The semi-public rôle of the *domus*: a summary

We have drawn chiefly on Roman literary sources that deal with public activities associated with the *domus*, and the connection of those activities with the Forum Romanum, to show that there were many facets to the relationship between house and Forum, most of them linked to the Roman patronage system. To have a house near the Roman Forum was likely to augment the number of visitors a patron would receive. This would be an advantage during elections: a house near the Forum was likely to increase a candidate's chances of winning office.

Interaction between patrons and clients took place in *domus and* on the Forum, proving that the business of patronage transcended any division between the domestic and public spheres. The tradition of the morning *salutatio* was deeply ingrained in Roman society and it had a political aspect. Petitions to a senator in his home could influence fundamental decisions on foreign policy, and possibly those on domestic issues subsequently taken in the Curia. The *domus* had a juridical aspect: disputes between clients could be arbitrated there; it was a place to seek legal advice; and young protégés would visit as part of their training for the Forum courts. Thus, the services provided in the houses of Rome's great men were complementary to, and integrated with, the political

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198 Livy 2.7.5-12; Coarelli 1983a, 79-89.
199 Saller 1984, 354-55; Hales 2003, 49-50.
200 See n.197 above.
201 Lisdorf 2005, 451-52.
202 Cic., *Dom.* 33.
203 Saller 1984, 354.
204 Crawford 1996, 307-10; cf. Fentress *et al.* 2003, 23.
205 Grenfell, Hunt and Smyly 1902, no. 5, 134-67; Bagnall and Derow 2004, no. 54, 95-100.
206 Gabba 1976, 322-23.

and judicial activities of the Forum. Aspects of patronage were an integral part of the *res publica*. This is why houses could be a concern for the Senate, and probably why we find laws aimed at ensuring houses corresponded physically to the rôle they were supposed to play.

The bond between house and Forum was demonstrated in many ways. It was ritualised by the crowds that followed the statesman as he left and returned home. It was emphasised with ceremony during funerals, when the *imagines*, as symbols of ancestry and legitimacy to public office, were removed from their domestic display cabinet and paraded in the Forum.

One can trace how the house physically imitated developments in the Forum Romanum over time. During the later 4th c., war trophies were fixed on public buildings and spoils were attached to houses. Investment in the Forum's public architecture in the 2nd c. was mirrored in the increasing magnificence of *domus* on the Palatine. The dedication of honorary statues in the Forum became a domestic habit, with clients setting up images of their patrons in houses.

Decisions and judgements made in Palatine *domus* had consequences for many, not just the house visitors. As A. Wallace-Hadrill put it, "one man's client is another man's patron",[207] and the statesmen in their Palatine houses were at the top of this chain. Some activities within the *domus* of Rome were essential for the running of the city, and indeed for the running of the State.

The difficulties in classifying the *domus*

Should the *domus* be classified as a public building as well as a private one? The answer has to be firmly 'No'. The services provided by the Palatine *domus* cannot be separated from the *patronus*. Houses were visited by those seeking audience with a person; when he was not at home, the house lost this function. The crowds attended primarily the man, not the building. When Cicero went to his villa near Formiae, he still received crowds of morning visitors.[208] Nevertheless, statesmen built and frequented houses near the Forum because they served overtly political purposes. In *Pro Plancio*, Cicero boasts of his efforts to remain visible to the Roman people by staying on the Forum and by restraining no one from visiting him in his townhouse, where he also attended the affairs of State.[209]

The oppositional concepts of public and private were understood by the Romans in connection with the house; of the two, they considered the house to be private.[210] When Pliny writes *forum in domibus privatis*, he describes the *domus* as private, for it was the place for the intimacies of family life, for dining and sleeping. When the constituent parts of the house are examined, however, the picture becomes more complex. Vitruvius says that the *domus* had both public and private spaces. Put simply, these polarising terms can be misleading, and the same is true today. If one examines a town hall, for example, in the same manner as archaeologists analyse the atrium house, problems emerge with the description 'public': the building is not always open but only at specific times; and when the doors are open, the most public areas are those nearest the entrance. Almost anyone may enter, but not all spaces within are public; to penetrate further into the interior may be only through invitation, and some spaces are hardly, if ever, visited by the public. The owners reserve the right to shut the building when they see fit and would have little problem with ejecting someone from the property if they felt it necessary. These basic 'rules' are applicable to most modern 'public' buildings, and they are not so different from those applicable to the *domus privatus* of Vitruvius' day. Although we cannot categorise the *domus* as a public building, when the *patronus* was at home it assumed certain characteristics which we associate today with public architecture. This may be why Roman town-planners wished to congregate atrium houses close to the town's most frequented public space.

207 Wallace-Hadrill 1989a, 77.
208 Cic., *Att.* 2.14.2.
209 Cic., *Planc.* 66.2-67.1.
210 For a discussion on the Roman concept of domestic privacy see Riggsby 1997.

Redefining the public space connected with the Forum Romanum during the Republic

Until the 2nd c., the Forum Romanum is believed to have been lined with *tabernae*, with the houses of the élite beyond (see pp. 146-48). Although the credibility of Livy's source that attributes the arrangement to Tarquinius Priscus is questionable, the more reliable reports of the early 2nd c. attest its partial demolition to make way for new structures. This indicates that the scheme existed during the mid-Republic and, I would argue, influenced the planning and architecture of the Latin colonies founded during the late 4th and 3rd c. As the archaeological evidence from colonies implies that houses had some kind of public function, possibly dating back to the 4th c., we need to rethink how the forum was defined in terms of public space. If one stood in the centre of the Forum Romanum, the immediate view would have been dominated largely by shops and sanctuaries; the sides were lined with commercial spaces. But the structures that defined the forum were not all situated directly on it, as N. Purcell neatly puts it:

> The early *forum Romanum* was a defined space, but it was principally the buildings around it that provided the boundaries — the sanctuaries, the *tabernae* and beyond them the houses of leading citizen-families.[211]

The spaces requisite to the *res publica* were not limited to the open Forum but extended to the atria and *tablina* of the *domus* beyond. This provides an explanation for the inter-relation between public and private architecture at Rome. The *domus* had a bond with the Forum, and the *tabernae*, rather than denoting the edge of public space, marked a transition to another form of it. The significance of the stoa for the Greek agora provides an interesting contrast (see pp. 64-67). The intent behind the positioning of stoas was to create a monumental definition to the boundary of public space. The religious significance of the agora meant that the space encompassed by stoas was viewed differently from that beyond them. A zenith in the popularity of stoa architecture was reached during the later 4th and 3rd c. throughout the Greek world and perhaps beyond. The stoa found a place on the Lucanian agora of Poseidonia, as well as at Morgantina, whose ethnic make-up may not have been entirely Greek, yet during this period the Romans were impervious to its influence. This seems to reflect a fundamental difference in their perception of public space. Despite their willingness to adapt other Greek architectural forms, colonnades were rejected as an element of Latin colonial fora during the 4th and 3rd c. The reason, I propose, is because the structures related to the political and administrative functions of the agora either formed or were enclosed within its border, and the stoa was paradigmatic of this model. In this contrast I believe to see the greatest difference in Greek and Roman concepts of the city during the period.

Colonnaded architecture first made an appearance on colonial fora during the 2nd c. The forum *porticus* at Cosa was dated to the first half of the 2nd c.,[212] but it bore little relationship to the traditional stoa. The main difference was the absence of a rear wall, so that it did not create a physical border[213] but rather gave a decorative and utilitarian façade to pre-existing structures. Here we see the continuing rapid adoption of Greek innovation, for the "connector portico" first appeared in Greek contexts during the 2nd c. as a façade to existing architectural compositions, such as in front of the Athenian Metroon[214] or across the W edge of the agora at Kassope (fig. 15). By adding a connector portico to the border of the Cosan forum, it adopted the superficial appearance of a Hellenistic agora, but effectively the façade of *tabernae* and entrances of the atrium houses received only a covered walkway. In this way it did not disturb the traditional concept of the forum border.

Another new aspect of 2nd-c. colonial fora is the large, axially-central temple, typified by those at the Roman colony of Minturnae[215] or the re-planned Iberian town of Emporion.[216] Porticoes

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211 *LTUR* II, 326 (N. Purcell).
212 Brown, Richardson and Richardson 1993, 121-23.
213 Gros 1990, 32.
214 Coulton 1976, 173.
215 Coarelli 1984a, 374; Guidobaldi and Pesando 1989, 38-40 and 50-51.
216 Mar and Ruiz de Arbulo 1990 and 1993, 218-66.

were built around three sides of both these temples; they mimicked the stoa by having a solid rear wall, thereby defining an absolute border of a religiously defined space, but they did not extend beyond the temples' front, which indicates that they were not considered appropriate for the sides of the forum. Thus, even after colonnades first appear on colonial fora, there was still resistance to the stoa concept for defining their edges. Its first full application on a Roman forum is probably represented by the Forum Iulium.[217] Under Caesar's heir it was prescribed and standardised by Vitruvius.[218] Only with the metamorphosis of the *res publica*, and the reduction in the significance of senatorial decision-making, is the forum sealed off from *domus* in its vicinity.

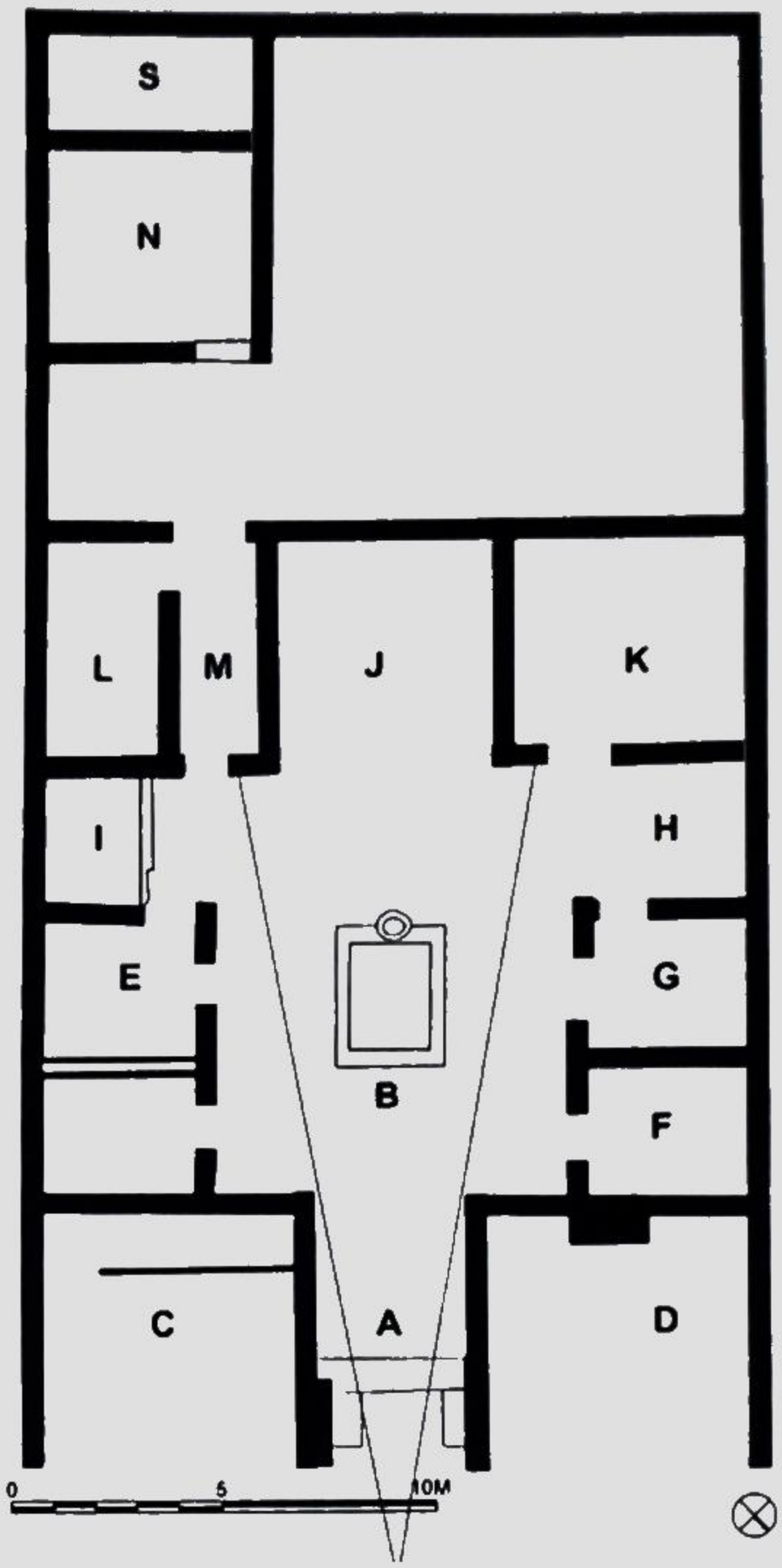


Fig. 63. Cosa: House of Diana, the view into the interior (after Fentress *et al.* 2003, 16, fig. 5).

To visualise *tabernae* as markers of a transition between the forum and the atria beyond, one must imagine the view of the atrium house from the exterior. Because many of these houses, near or on fora, had street-front rooms accessible from the street (see pp. 133-34), when one stood in front of such a house the view would have been dominated by those commercial spaces. The entrance to the house (*fauces*) appeared as a small corridor between them. The magnificence of a house could be fully appreciated only by entering it. For passers-by, the commercial aspect of such houses would have been visually dominant. The owner probably profited from the rent of these spaces[219] and, with the employment of freedmen as commercial agents, the lowly business conducted in *tabernae* cannot be fully detached from the *patroni*.[220] There is a similarity between the vista created by the atrium house's frontage and the glimpse into its interior through the *fauces* (fig. 63), as at the House of Diana[221] where the *fauces* lead to the atrium between its street-front *tabernae*. H. Drerup observed that the proportions of the atrium house are so contrived that, from outside, the view within across the atrium embraces the *tablinum* only.[222] This interior view has been likened to the view into a public building;[223] the desired effect could be achieved only if, like

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217 Nünnerich-Asmus 1994, 59; Gros 1996, 100.

218 Vitr. 5.1.1. Although the connector portico became popular on Roman fora from the 2nd c. onwards, I am not aware of a fully colonnaded forum, such as Vitruvius prescribes, proven to predate the Forum Iulium.

219 Shatzman 1975, 50; Wallace-Hadrill 1994, 121.

220 Purcell 1994, 662-71.

221 Fentress *et al.* 2003, 14-23.

222 Drerup 1959, 158-59; cf. Wallace-Hadrill 1989a, 63.

223 Wallace-Hadrill 1994, 59-60; Zaccaria Ruggiu 1995, 375-76.

a public building, the doors were open. The *tablinum* and *tabernae* share the characteristic of being closed with shutters or, in the case of the *tablinum*, often with curtains.[224] The exterior vista presented by such an atrium house during the daytime thus comprised three open rooms: the two on the street were connected to commerce, and the view into the *tablinum* beyond enticed the viewer in to where other business could be conducted.[225]

How this worked on colonial fora is best seen in the later forum scheme at Cosa. The 2nd-c. layout did not have separate *insulae* lining the forum's long sides, as at the other colonies, but each of the atrium houses was probably fronted by *tabernae*. Three sides of the forum were lined with shops with *fauces* interspersed, leading to atria beyond. At the colonies where the original planning has been recognised, *insulae* were placed on the forum's flanks intended for *tabernae* and other public architecture, with *domus* immediately beyond them. This scheme appears to have been adapted from the mid-Republican Forum.

The semi-public function of *domus* and its relation to the fully public activities on the forum is inseparable from the workings of Roman patronage. Although patronage appears to have been an ancient institution (there is reference to it in the Twelve Tables[226]), we do not know when it became normal for patron-client interaction to take place in domestic contexts. The *salutatio* developed over time — we need only take C. Gracchus's hierarchical separation of visitors as an example. Perhaps the most reliable early reference is in Polybius who, in the mid-2nd c., said that making formal house visits was normal for young aristocrats.[227] A passage in Plautus's *Aulularia* has also been used to argue that *domus* had open doors by the early 2nd c.[228] Livy's double emphasis on house visits by the Syracusans in 210 is consistent with the procedure recorded for later times.[229] A passage relating to the year 215 refers to spoils that were set up inside houses,[230] seemingly in the expectation of visitors. Livy also records that patrician houses near the forum were left open during the Gallic sack (early 4th c.).[231] This is not sufficient to be sure that the *salutatio* was a solid tradition in the late 4th c., but the *salutatio* of the Late Republic does appear as a highly developed and fully integrated component of life at Rome,[232] implying that it was indeed ancient. The reservation of areas for houses of the highest property class in the vicinity of colonial fora during the later 4th and 3rd c. strengthens the argument that the *domus* had become a setting for semi-public activities by that time. The creators of the standard atrium house seem to have had its public function in mind when they designed it. Yet based on the results of excavations to date, there seems to have been a hiatus before *insulae* set aside for *domus* were filled with structures, which appears only to have occurred by the 2nd c. The difficulty in finding 3rd-c. houses in the colonies is a more general problem, to be discussed further in the last chapter.

Another potential sign for client/patron interaction in colonial *domus* is the presence of a *vestibulum*, although there are problems with the evidence. Aulus Gellius describes it as an area between the front door of a *domus* and the street,[233] and this seems to be confirmed by other authors from the 2nd c. onwards.[234] Many atrium houses had their front door set back from their façades in the *fauces*, revealed through a pair of inward-jutting doorjambs, or a threshold situated somewhere between the atrium and the street-front. Thus the modern understanding is that the space between

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224 Gros 2001, 40; Wallace-Hadrill 2007, 283.
225 Wallace-Hadrill 1994, 118.
226 Cornell 1995a, 289-91.
227 Polyb. 31.29.8.
228 Plaut., *Aul.* 3.5.15-19; Zaccaria Ruggiu 1995, 373.
229 Livy 26.29-30.
230 Livy 23.23.6.
231 Livy 5.41.4.
232 Badian 1958, 1.
233 Gell., *NA* 16.5.2-3.
234 Wiseman 2008, 283-84.

the door and the street was considered to be the *vestibulum*. Cicero and other authors describe the *vestibulum* as an area where clients assembled for house visits;[235] although these sources are really relevant only for Rome, the stone benches found in the *vestibula* of some atrium houses outside the capital have been taken as a confirmation of the practice. Such setback doorways appear to have been present in a few of the standard atrium houses at Fregellae, for example (fig. 49), but notably not all; a small *prostas* type of house on the S side of the *decumanus* also possessed one. How may this be explained? As we have seen at Pompeii, there appears to have been a desire among the owners of smaller houses to emulate features of the atrium design so as to enhance the perceived status of their homes. There are also examples at Pompeii of row-houses that were acquired by wealthy owners who subsequently extended them into large magnificent properties.[236] Yet I am sceptical of the evidence for *vestibula*, since the logic of categorising a house as one that was visited by clients through the position of its front door seems flawed. Still, the House of Diana at Cosa possessed that sort of space lined with benches in its Augustan phase.[237] By the time they were abandoned in late antiquity, only two of the large houses at Paestum on the recently-published *insula* next to the forum possessed a *vestibulum*.[238] Not much may be read from all this.

H. Mouritsen emphasised that during the Late Republic élite residences at Rome were congregated on the Palatine and Velia, with no trace of humbler dwellings among them.[239] There appears to have been a policy of residential segregation during this period. It is Rome where we have the most information about who lived where, and it is consistent with the planning of separate residential areas for the élite in the colonies, including attempts to situate élite properties on the available high ground. The metropolitan model thus appears to have been adapted for the colonial context. When a colony was founded, the ratio of its different property classes ensured that the *equites* formed a minority (see p. 144). It seems that the size of intramural house plots was differentiated according to property class (see pp. 121-22), demonstrating that Rome's timocratic system was also adapted for the colonies.

The three commissioners responsible for the foundation of a colony were often former consuls or praetors.[240] It was their choice to become involved since they had to campaign for election through the *comitia tributa*. The responsibilities of the great patrons who built Rome's colonies included the enlistment of new citizens whom they handpicked, including the new colony's ruling class.[241] They probably had the power to choose the new town's first magistrates, without recourse to elections.[242] Armed with such *beneficia*, the commissioners were in a position to forge bonds of personal allegiance with the new colonial élite. That such powerful men were willing to sacrifice long periods of time in a colonial enterprise may be related to it being a way to augment the number of their *clientelae*.[243] These personal links may have served to strengthen the bonds to the mother city, as a colony would have benefitted from having influential representatives at Rome.[244] This might in turn be linked to the colonies' record of loyalty over time and help us understand why the physical infrastructure was provided to encourage the establishment of patronage systems in the colonies adapted from the metropolitan model.

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235 E.g., Cic., *Att*. 4.3.5; Cic., *De Or*. 1.200. Cf. Vitr. 6.5.1-2.
236 E.g., the House of the Vestals: cf. Jones and Robinson 2007.
237 www.press.umich.edu/webhome/cosa/f5_p_iiia.html (viewed 6.9.2010).
238 Bragantini *et al*. 2008, 111-12 and 160.
239 Mouritsen 2001, 136.
240 Gargola 1995, 58-63.
241 Ibid. 65-67.
242 Mommsen 1887, 637-38; Salmon 1969, 85-86.
243 Badian 1958, 162-63; Greco 1988, 80-82; David 1996, 52; Patterson 2006a, 202; id. 2006b, 144.
244 Badian 1958, 165; Wallace-Hadrill 1989a, 74-76.

The function of colonial *domus*

Although there is strong case for Latin colonial *domus* having been the setting for semi-public activities and playing an important rôle in relation to the forum, a number of important questions remain unanswered due to the lack of textual sources for the colonial context. I will turn now to these issues, but my proposals represent nothing more than a working hypothesis.

For whom were the larger plots near colonial fora intended? It is unlikely, to my mind, that they were reserved exclusively for magistrates (although magistrates may have been among the owners). Firstly, a metropolitan precedent is lacking in Late-Republican literary sources; if it was normal for a newly-voted magistrate to move house for a year, we would surely find this fundamental practice echoed, for example, in Cicero. Budding politicians bought properties on the Palatine because they sought public office, rather than as a result of having become elected. The houses on the edge of the Forum that were demolished for the construction of basilicas are referred to by the familial names of their owners, not by magisterial titles. Given the (presumably) short-term tenure of colonial magistrates, having to move house upon election would seem an unnecessary distraction from their new responsibilities and, in the long term, would surely have led to an unsustainably chaotic pattern of house-ownership in the centre of the town. The only public office at Rome that we know was associated with residency in a specific house was that of the *pontifex maximus*, in the *domus publica* on the edge of the Forum.[245] Since he held the position for life, moving house would seem a much more practical proposition. We might thus expect a small number of large colonial houses to have been homes for priests.

Ideally, however, we should be seeking a small, identifiable sub-group of a colony's highest property-class that was involved in the forum's political activities over the longer term, remembering that, in most cases, there was sufficient space within Latin colonial towns only for a small proportion of their full complement of *equites*. This might point to members of the local senate being the original recipients of these plots, but there are problems here too. The composition of the senate was likely to fluctuate over time, even early on, as the aforementioned inscription of the *triumvir* from Aquileia attests, for he co-opted its senate three times (*senatum ter coptavit*), although over what time period is unknown. It is difficult to imagine that modifications to the body of senators, for whatever reason, would lead to compulsory changes in house-ownership near the forum (see my earlier argument that aristocratic residences were unlikely to remain neatly grouped over time). In addition, and taking Cosa again as an example, there is still a potential urban housing shortage for senators. Fentress' reconstruction has placed 24 standard atrium houses within the town. The number might be underestimated, but surely not by many: the interior measurements of the senate-house attached to the comitium were given at 8.83 x 6 m[246] and F. E. Brown envisaged two tiers of steps along each side providing seating for up to 60 councilmen,[247] yet it is unlikely that there were half this number of standard atrium houses in the town at its urbanised peak. Still, initially at least, select members of the senate would seem the best bet as recipients, especially as it appears as though the *triumviri* could oversee the allotting of urban house-plots and could constitute the senate.

What kind of semi-public activities took place in colonial *domus*? Above all else, the relatively small scale of the colonial towns, especially in terms of population and wealth, would have made patron/client interaction in colonial *domus* very different from that taking place on the Palatine. We should also not forget the military rôle of the colonies, since the character of personal interaction between house visitor and *patronus* takes on another dynamic when the relationship between the two is also that of soldier and ranking officer. I think it likely that the doors of colonial *domus*

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245 Excluding the occupants of the *atrium Vestae*.
246 Brown *et al.* 1993, 22.
247 Brown 1980, 26-27.

were open to lobbyists, whether in the form of lower-ranking colonists or representatives of neighbouring communities. Even though colonial senators may have had little power to assist their neighbours directly, they may have been useful as intermediaries or advisors for those who wished their grievances to be heard at Rome. It seems likely that some interaction had to do with local jurisdiction, or with potential proposals to be voted upon in the comitium (or in the forum). More generally, the conventionally open doors of the *domus* provided means by which colonists could interact with their leaders, creating a channel of communication between the ruling-class and those subject to their decisions, theoretically to their mutual benefit. We can also expect the reception of the concept of the *domus* to have differed from town to town. Each colony had a unique history and politico-religious identity and distinct characteristics determined, for example, by its geographical location, economy, and the ethnic background of its colonists.

The system during the Early Principate

Due to the physical and conceptual changes the forum underwent from the late 1st c. onwards, it is unlikely that colonies continued to be planned in this way. Under Augustus the Forum came to lose its political significance for senators.[248] He and his successors claimed increasing areas of the Palatine as their own. The Republican houses in the Forum's vicinity were reduced in number. The final blow came with the fire of A.D. 64.[249] New senatorial homes came to be built increasingly on the Quirinal and Esquiline in the 1st c. A.D. and on the Aventine in the 2nd-3rd,[250] although they continue to display the link between élite properties and higher ground. Although the forum-*domus* relationship lost its previous importance, the townhouse maintained a public aspect because personal patronage and the *salutatio* continued into the Principate.[251] To some degree, an attempt was made to export the concept of the *domus* to the provinces.[252] In the province of *Africa* there is indication that *domus* came to be built near the centre of towns, but when there was no more room still more luxurious homes came to be built on the outskirts.[253] In the 1st c. A.D. the *domus* was still a public concern. In the winter of 62, Agricola undertook a programme of social betterment (*multiuberrima consilia*) in *Britannia*:

> hortari privatim, adiuvare publice, ut templa fora domos extruerent.
>
> He therefore gave private encouragement and official assistance to the building of temples, public squares and *domus*.[254]

Tacitus' statement also neatly encapsulates the continued absence of boundaries between the public and private spheres.

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248 Patterson 2000, 262.
249 Wiseman 1987, 399-409.
250 Eck 1997, 77-78.
251 Saller 1982, 128; Patterson 2000, 262.
252 Thébert 1987, 383-405.
253 Ibid. 341-43.
254 Tac., *Agr.* 21.1 (transl. H. Mattingly).

CHAPTER 6

Conclusions

The aim of this study has been to elucidate the various formation processes which shaped early Roman urbanism through an analysis of the individual planning and architectural elements of colonial towns. The elements from which the colonies were composed are broadly categorised here as deriving from contemporary Greek practices or stemming from archaic traditions (Roman, Etruscan or Italic).

The basis for the choice of site for the Latin colonies cannot be compared to contemporary Greek cities since they were founded as part of a strategic system created in the interests of a single mother city. The communications routes to and from Rome were often protected by colonies. The Romans did not share the contemporary Greek preference for south-facing hillsides and may even have had a preference for north-facing sites, as Vitruvius later recommends.

The fortifications of the Latin colonies provide evidence that the Romans were aware of the most recent innovations in Greek fortification architecture. The forms of city gate found in the colonies reflect this, including use of the arch and the portcullis, probably already adopted by the Romans by the beginning of the 3rd c., if not earlier. The employment of Greek-style artillery towers followed shortly, the first known example being Cosa. One important aspect of early Roman defences, however, had no contemporary Greek equivalent: the *agger*, a feature inherited from archaic Italic tradition. The Romans attached considerable significance to the border between town and countryside,[1] and in this context it is interesting to note the survival of an ancient feature that defined this limit.

Much of the basic town-planning of the Latin colonies was based on contemporary Greek practices. The terrain upon which the line of the curtain was defined determined where the gates were going to be. The street grid was then adjusted so that the principal communications routes from the gates converged on the forum. Greek cities of the period had market-places with streets skirting each side, a scheme employed for the fora at Alba Fucens and Cosa (and perhaps this arrangement is yet to be discovered at Fregellae). Another Greek tendency was to plan rectangular market-places to be orientated 90° to the rest of the *insulae*, a feature of the designs of Cosa and Paestum. Although these planning elements can be found in both contemporary and older Greek cities, the proportions of residential blocks in the Latin colonies show that it was current Greek planning practices that were being applied. There is only a slight indication that the Latin settlements followed the relatively set Greek rule of making major streets wider than minor ones, but it is possible that Roman planners gave urban processional routes additional width, a feature also of some Greek cities.

It is in the area of the forum that we see the greatest differences between Greek and Roman concepts of the city. When considering the physical differences between fora and agoras, one must examine the diverse ways in which they were defined from a religious perspective. The sources suggest that a religiously defined purity, closely linked with the juridical and political activity that took place there, was intrinsic to the Athenian perception of the agora. The perceived exclusiveness of the agora probably influenced the growing trend for agoras to be framed by stoas, creating a monumental boundary akin to a *temenos*. The Romans rejected the stoa concept until the 2nd c. There were probably two main causes. The Romans' perception of the market-place, in religious terms, was apparently not influenced by the Greek belief system; and the spaces associated with the normal functioning of the forum were not all within or along its borders; the atria of nearby *domus* were semi-public spaces intrinsic to the normal functioning of the forum.

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1 Gros 1996, 26.

Some distinct planning devices appear to be derived from the traditional scheme of the Forum Romanum. Livy describes the original partition of the Forum as the creation of houses and shops. The adaptation of this basic layout is perceptible in the colonies on several levels. Although it was essential for the forum to be at the heart of the town, Roman planners may have tried, when possible, to set colonial fora on relatively elevated terrain, in contrast to Greek practice. This phenomenon seems to be related to the planning of segregated residential areas for the colonial élite. Areas were reserved in the vicinity of the forum for the construction of *domus*, which were ideally situated on higher terrain than houses of the lowest property class. This appears to have been the motivation behind colonial fora set on higher ground. The flanks of these fora were planned with *insulae* destined for *tabernae* and civic buildings, a design concept apparently without a Greek precedent.

It is tempting to see the model for the reservation of areas immediately surrounding the fora for shops and houses as being that of the early Forum. Although the archaeological evidence for the chronological development of these shops differs by colony, the *insulae* which flanked the colonial fora should date from the founding years, which suggests that *tabernae* were intended as part of a planned programme from the start. But their meaning extended beyond being a mere row of shops: they also marked a transition from one form of public space (the forum) to another (the atria of the *domus* beyond). The link between *domus* and forum appears to be related to how the patronage system was integrated into public life. This may allow an insight into how this Roman institution could actually influence the design of Roman towns during the Republic.

The repetition of these planning elements derived from Rome suggests that they were applied programmatically in the Latin colonies, but this should not be equated with a rigid colonial policy. Some pragmatic aspects of Rome's approach reveal themselves too. The market-places of the Latin colonies tended to be proportionately quite long in comparison to contemporary Greek examples. This might be because the activities foreseen for colonial fora were derived from those of multiple public spaces in Rome. The character of colonial cults was not uniform, an aspect apparently linked to the individual, yet limited, political identities that the colonies were allowed to create for themselves. The unique identity of each Latin colony may be reflected in the differing architecture of their curia buildings or in the variety of the stone-lined pits lining their fora. There is still reason to argue that the pits were connected to voting and the accompanying ritual, since their arrangements are clearly influenced only by the position of structures with overtly political significance. Like colonial senate-houses, the pits may have been derived from those on the Forum Romanum. The same can be said for the comitium. This suggests that elections were also influenced by metropolitan models. We also find small solid buildings which may have been prisons based on the *carcer* on the Roman Forum. The majority of the Roman elements of the Latin colonies thus have political associations.

That the colonists were divided into property classes is attested by the literary sources and by the archaeological identification of differing sizes of urban house-plots. The planning of the colonies thus reflects the establishment a timocratic system. The atrium house was dominated by architectural elements of archaic origin. With the placement of these properties near the fora of the colonies, it testifies to a colonial version of Rome's physical infrastructure in which a patronage system operated. The relationship between the *domus* and the forum as implied by literary sources appears to be reflected in physical form in the Latin colonies.

To consider the colonies 'replicas' of Rome on a political level is likely to hinder our comprehension of the relationship between colony and mother city. The colonies were partially subordinate to another State, something that Rome herself never really experienced and actively avoided. Moreover, the colonies seem to have been given the ability to develop their own political systems to some degree. The replication model risks masking a number of dynamic processes which might offer greater insight into the colonisation phenomenon. It may be more appropriate to see Rome as providing the model for institutions which were *adapted* for the colonial context.

The perceived degree to which the Romans relied on Greek ideas for the building of cities is now enhanced by our investigation into housing. The residential sections of the Latin colonies were occupied by houses which were partially based on a Greek design. The *prostas* house appears to have evolved from experiments which sought a suitable design for developing urban communities with differing social and ethnic make-ups and increasingly diverse professions. The design's flexibility is reflected in its repeated application in new urban contexts in different parts of the Mediterranean region. This flexibility was probably one of the chief factors in Rome's choice to adopt it. Sufficient of the original Greek design persisted in Roman contexts for its identification to be secure, but Rome exploited its adaptability and it became more of a template to suit the diverse needs of her colonists.

The residential areas of the colonies appear to have been zoned with plot sizes dependant upon the citizen's property class. The smaller houses reveal a great deal of variation in their internal layouts, but the largest dwelling, the atrium house, remained largely unchanged in its ever-repeatable plan. That was probably because this particular layout was inextricably linked with the semi-public activities which took place within it. This function of the *domus* is probably the reason why the Latin colonies were designed in such a way so that atrium houses were congregated around the forum. The *domus* and the forum being inseparable in the Republic, in this relationship I believe to see the greatest difference between Greek and Roman urbanism. The semi-public function of the *domus* may also account for why there appears to have been so little division between the public and private spheres.

Despite this, the Romans did adapt a Greek design for their colonial housing, and some of its functionality may have been adopted along with it. The two street-front rooms of the *prostas* house and Roman colonial houses were adaptable. If situated on a main street they were more likely to contain shops. A system for constructing houses *en masse* was probably adopted from the Greeks. The ubiquity of Roman house designs suggests that they were recorded in an abstract form, probably as a written description. The design played a greater rôle than a simple set of building instructions, however, because it allowed those responsible to envisage what was involved prior to the commencement of work. Greek epigraphic evidence indicates that the main issue with large-scale construction work was finance. The design allowed architects to estimate costs and deadlines before work commenced. Those estimates became the basis for legal contracts, not only for the construction work itself but also for the supply of materials. The use of a small number of set designs would have been an invaluable tool for planning the financing, labour, time and materials for building residential quarters.

Exactly when the creation of the new and repeatable house designs occurred is not yet clear, but almost certainly it was by the mid-3rd c. It is still possible that it was developed in the early years of the colonisation programme; that is when the Romans required a solution to the new challenge of how to construct houses in large numbers, and the system would be applied not only in the colonies, as the evidence from Pompeii seems to show. The crystallisation of house designs was momentous for the history of Roman domestic architecture because of the persistence of the atrium design on the Italian peninsula into the Late Empire.

One of the main issues that still needs to be resolved is why widespread application of the system began only in the early 2nd c.[2] At Fregellae, the excavated *decumanus* appears to have produced a single atrium house of the early 3rd c. Only a tiny portion of Alba Fucens' residential areas have been investigated, revealing primarily Late Republican architectural phases. At Paestum, the re-exploration of the *insula* to the west of the forum was limited in scope but might have identified two 3rd-c. structures.[3] At Cosa, none of the houses is dated prior to the 2nd c. Fragmentary remains

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2 Cf. Pelgrom 2008, 346-47.

3 R. Robert and A. Lemaire in Bragantini *et al.* 2008, 151-52, 197 and 239.

of 3rd-c. structures have also been found at Ariminum.[4] Above all, one needs to be aware of the low percentages of urban surface areas that have been excavated. But because sparse 3rd-c. habitation is a characteristic of the excavated residential areas of all four colonies, it may still be identified as a pattern. The situation in the more extensively investigated *Regio VI* of Pompeii is not dissimilar: it may be categorised as sparse through a comparison with the 2nd c., which marked a new intensity of construction. From the end of the Second Punic War, the colonies' walled centres show signs of rapid urbanisation, seemingly in response to the availability of greater resources to Rome and her allies. The period 194 to 177 is by far the most intensive 17-year span of colony foundation anywhere between 334 and the 1st c. B.C. After this initial spurt to create new settlements, Rome's attention turned to improving existing ones. The only Republican record of censorial building in citizen colonies relates to the infrastructure projects of 174.[5] In the Latin colonies at this time we also see a focus on new public amenities, such as temples and road paving, best illustrated at Cosa. Since the intensity of this activity must be linked with increased pecuniary reserves, amongst other things, it is unreasonable to expect that construction on such a level could have occurred during the late 4th and 3rd c.

On the other hand, the sheer number of Rome's town-building projects up to the 2nd c. does not reflect a restricted budget for urbanisation. As discussed in chapt. 1, Rome refounded annexed towns during the late 4th and 3rd c. Since she had this ability, one can hardly argue that there were insufficient funds for developing the urban infrastructure of her own colonies. Instead, we might identify the beginning of financial problems with the moment the *triumviri* packed up and returned to Rome. The commissioners' primary tasks included the fortification of the urban area. In most cases archaeology confirms that the city wall was the first construction project to be undertaken, and literary sources relevant to the 3rd c. state that work started on the fortifications before the colony was fully established.[6] To judge by Greek epigraphic sources, construction of the *enceinte* may be an urban centre's most expensive component. Establishing the line of the curtain was integrated with the planning of the town.[7] The degree of similarity in the designs of the Latin colonies almost certainly reflects a programme whose implementation can be ascribed to the *triumviri*. Sources which refer to the commissioners at the site also have them busy with allotting holdings,[8] and there is some evidence for them being involved in the establishment of colonial constitutions. Once the skeleton of the colony had been created, its fleshing out probably became the responsibility of the new semi-autonomous community. That this did not happen during the 3rd c. may be linked to fiscal problems, and if finance was the stumbling block it might account for other elements missing in the 3rd c., such as the *tabernae* at Alba Fucens or the comitium at Cosa. According to M. H. Crawford, Paestum was also urbanised at a leisurely place.[9] The system of house construction, after all, was aimed at the efficient management of limited resources. Yet there is still some evidence that seems to conflict with this view, such as the 3rd-c. bath complex found at Fregellae,[10] and a further *balneum* uncovered at Paestum,[11] which the excavators date to the early years of the colony.[12] Why there were sufficient funds for such facilities, and not for more essential architecture, remains a mystery.

This does not assist us in answering the fundamental question of where Latin colonists lived before the 2nd c. Among the Latin colonies Cosa offers the bleakest picture of a 3rd-c. urban

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4 Ortalli 2001, 29-32; id. 2004, 316-17.
5 Livy 41.27-28.
6 Livy 21.25.3-4; Polyb. 3.40.9-10.
7 See the inscription from Colophon, pp. 98-99.
8 App., *B.Civ.* 1.24; Livy 21.25.3-4; Polyb. 3.40.9-10.
9 Crawford 2006.
10 Coarelli 2004.
11 Lemaire and Robert 1995, 1996 and 1997.
12 Bragantini *et al.* 2008, 6 n.9. The results of this excavation are planned to be published in full.

landscape. If the theory of the relocation of the forum is accepted, then the only known features from that period are the defences, the street system and original forum with a reservoir in its W corner, and a small prison. Other signs of life are provided by the coins from Cosa's mint[13] and by its port, which demonstrates some activity.[14]

The absence of urban housing forces us to look in the *territorium* for the colonists. Cosa's relatively well surveyed hinterland has not yielded substantial signs of 3rd-c. occupation,[15] but there is uncertainty about the dating of numerous sites, and subsequent land-use is believed to have destroyed others.[16] The pre-colonial settlement pattern was severely disrupted at the moment of the foundation and it provides good evidence for the original *limitatio*.[17] Despite being hard to find, the homes of many, if not most, of the colonist families would have lain in the territory. J. Pelgrom has calculated the percentages of Latin colonial populations that could have lived in the urban centres during the Middle Republic.[18] By comparing the surface areas of 24 colonies founded between 334 and 181 with the number of colonists they are reported or calculated to have received, he established that, on average, *c.*55% must have lived outside the walls,[19] and the figure was probably even greater, as he himself suggests. His calculation methods (using a population density of 120 persons per hectare) produces urban residency for *c.*18% of Cosa's population, for example, but, at one house per colonist family, Fentress' reconstruction creates sufficient housing for less than 9% (fig. 59). Of the three urban centres (Luceria, Saticula, Paestum) that Pelgrom tentatively proposes might have coped with the entire population, this can be corroborated only for Paestum,[20] the line of whose wall circuit is pre-Roman.[21] In short, I agree with his proposal that "most colonial towns probably could not hold more than 20-30% of the total number of colonists".[22] Apparently without exception, the size of *de novo* urban centres appears to have been deliberately restricted, ensuring that the majority settled in the territory. In other words, it was one of the programmatic aspects of colonial policy during the late 4th and 3rd c. On a superficial level there are no great obstacles to understanding this phenomenon. As P. D. A. Garnsey suggests, binding the entire population to urban residences would sentence many to excessively long daily journeys to tend their fields.[23] As I have tried to show, building towns was an expensive business; thus their restricted size might also be due to financial considerations. Shorter wall circuits are more easily defended than longer ones. If necessary, all the colonists could have holed up within the walls in case of attack. Thanks to the *viae publicae*, theoretically the urban centres did not need to be built to withstand prolonged sieges; one of the main points of the road system was to provide rapid assistance.

The immediate need of most Latin colonists would have been to establish their own rural base. With the initial focus lying outside the town, this may provide insight into the absence of 3rd-c. urban residences. Rome's development of a system for building urban housing reflects the importance she attached to walled centres, and I do not mean to denigrate their significance: they were intended to be the religious, political and administrative nuclei of the colonies. Yet to understand the Roman concept of the city, it is necessary to comprehend how it was entwined with the concept of the *territorium*. As Garnsey emphasises, "a *colonia* was, as the name indicates, a settlement of

13 Buttrey 1980, 5.
14 McCann 1987, 172-73.
15 Celuzza 2002a, 106; cf. Pelgrom 2008, 337-41.
16 Cambi 2002, 137-39.
17 Celuzza 2002a, 109-10; 2002b, 122-23; cf. Pelgrom 2008, 358-67.
18 Pelgrom ibid. 342-47.
19 This average percentage is calculated from the figures presented in Pelgrom (ibid. 344 fig. 4).
20 Pelgrom ibid. 345-46. Lackner (2008, 110-12 and 168) has investigated the size of Luceria and Saticula more thoroughly and her results lead one to doubt the sizes presented by Pelgrom.
21 Torelli 1999a, 18.
22 Pelgrom 2008, 343.
23 Garnsey 1979, 13-18.

cultivators".[24] With the increasing quantity of surface surveys undertaken and recently published, comparative studies may be attempted. Pelgrom thinks to see nucleated settlements in 3rd-c. Latin colonial territories (Interamna Lirenas, Cosa, Fregellae), for example, while stressing that some also contain the remains of small fortified centres.[25] T. Stek has recently discussed the possibility of extra-urban *vici* established in the 3rd c. within, and contiguous to, colonial territories, as a consequence of the Roman conquest.[26] Our grasp of Latin colonisation will become firmer by focussing attention on the countryside.

Rome's interest in the efficient management of building projects is first attested in the 4th c. by Livy's reference to the earliest public contract concerning the walls, begun in 378, and the historicity of this report may be supposed for several reasons. Greek building contracts date back to the 5th c. and most relate to fortifications, probably because they were expensive and time-consuming to organise and realise, making efficient resource management desirable. Testimony to Rome's employment of foreign experts, who were probably used to working under the constraints of a contract, is provided by the Greek masons' marks found on those same 4th-c. defences. This period, during the recovery from the Gallic Sack, also created the right conditions for Rome to develop her interest in the efficient management of public building projects. If Rome started to undertake large-scale construction in a Greek manner this early, then there is every reason to suppose that they would be applied as standard procedure to the urbanisation programme. A host of contractors may then have been involved in the planning and realisation of colonies.

At first, Rome appears to have been heavily reliant on Greek ideas regarding the organisation of urban space and fortifications, as is suggested by the distinct form of her small coastguard colonies, probably based on a Massiliot precedent. Greek experts or their treatises were probably consulted when the concept of the post-338 Latin colonies was first being thought through. For the earliest colonies we might imagine Greek engineers and architects working on site so as directly to apply their expertise. The later 4th c. was a felicitous age for Greek engineers and architects because they possessed much-sought-after technical knowledge, and Rome was not the only potential employer on the peninsula, for later 4th-c. fortifications in Lucania show numerous Greek masons' marks.[27] Roman contact with the Greek cities of the south between the late 4th and mid-3rd c. may be inferred from literary sources as well as from the architectural form of the comitium, probably derived from the circular assembly-places of Magna Graecia and Sicily.

Most of the Greek elements identified in Latin colonial design were utilitarian. The organisation of urban space, fortification architecture, and mass house construction are all areas where Rome had little experience at the beginning of the colonisation programme, so she sought foreign expertise to fill gaps in knowledge. The period when the colonisation programme began saw an explosion in the numbers of Greek experts with the required technical know-how, experienced in drawing up designs and producing cost estimates to which they were legally bound. As inscriptions show, this was a requirement for architects working under a contract. Contacts with Greek experts might have facilitated Rome's adaptation of other Greek innovations. The earliest atrium house identified at Fregellae had wall-plaster of the First Style (Coarelli believes it to be the oldest in Italy),[28] a style of decoration which originated in Greece as the "Masonry Style", the earliest example predating the mid-4th c.[29] Rome's reliance on Greek expertise in city-building thus created a context in which the transmission of other methods and techniques may be understood.

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24 Ibid. 16.
25 Pelgrom 2008, 348-54.
26 Stek 2009, 123-70.
27 Miller 1995, 471-89.
28 Coarelli 1998a, 65.
29 Bruno 1969, 316-17; Barbet 1985, 13; Strocka 2007, 306-7.

The transmission of foreign knowledge probably resulted simply from architects and engineers practising their professions. A glimpse of one of the steps involved in the dissemination of ideas is provided by the inscribed building accounts relating to the construction of the Temple of Asklepios at Epidaurus in the 4th c. Heralds were sent to Nemea, Corinth, Argos, Troezen, Thebes, Tegea and Athens to announce the auction of building contracts.[30] It reflects the expectation that architects and engineers would have to be away from home for long periods to make a living, and that their business was a competitive one. In this competitive environment, one can see a motivation for architects to keep pace with new techniques, styles and tastes that were developing during the later 4th c. and 3rd c. (perhaps the most dynamic period in classical antiquity for city-founding and urban renewal). It would seem particularly essential for individuals professionally engaged in the construction of poliorcetic architecture, for example, to be as aware of technological advances in siege machinery as of those in fortification architecture.[31] The need for architects to keep up to date and the conventional itinerancy of their profession are, to my mind, two of the main factors responsible for the diffusion of architectural concepts across the E half of the Mediterranean world. The writing and dissemination of architectural manuals might have assisted the process. Knowledge may have been passed along through a chain of personal interactions between architects, making innovation highly mobile. A product of this environment was, I think, the Roman adaptation of the *prostas* house, a form of dwelling popular in W Asia Minor, but apparently not in Magna Graecia. This reminds us that the settlement model for the *coloniae maritimae* finds its closest Greek parallel in S France rather than S Italy. Concepts could be transmitted between areas that were not geographically contiguous. The early development of Roman urbanism can be better understood when set in a Mediterranean context.

Although the planners and architects of the Latin colonies were reliant on Greek concepts, especially regarding the basic organisation of urban space, they also possessed their own relatively set ideas, possibly from the outset. Some standard Greek architectural models were rejected; others, apparently Roman in origin, were applied programmatically in the colonies. These factors give me the impression that they knew what they were doing. Even if we erase from our minds the strength of the later Roman tradition in city-building, the Latin colonies still reflect independent practices confidently applied from the outset. This interpretation stands somewhat in contrast to some recent research.[32] The anachronisms and inaccuracies of later written sources referring to early colonisation have led to the suggestion of "the existence in the Middle Republic of a diverse and unregimented colonial phenomenon".[33] Although it does appear as though diversity (to a degree) was an essential feature of the Latin colonies, there is good reason to suspect that the endowment of individual, politico-religious colonial identities was a considered and integrated feature of Roman policy.

The results of this study are not compatible with the idea that colonisation during this period was "unregimented". The town planning of the colonies is important in this regard because in most cases it may be attributed to the founding years, providing a solid contemporary testimony to the Romans' intentions. It shows that Roman town-builders were, on the one hand, pragmatic, but only within the parameters of a programme determined by colonial policy. This assertion can be made because in the design of *each* of the four better-known Latin colonies we can observe the selective incorporation of Greek concepts, the adaptation of a timocratic political system, and a reasonably fixed and distinct forum design derived from Rome. For students of western provincial

30 Burford 1969, 160-61.

31 Even if architects had this knowledge, it did not mean that they would automatically apply it in the projects they were involved in. The erratic technological development in siegecraft in both Greek and non-Greek contexts might have been partly related to its huge expense: Winter 1971, 311-27. Cf. Torelli 2008, 271-72.

32 Bispham 2006; cf. Crawford 1995; Purcell 2007, 189.

33 Bispham 2006, 84.

towns, the formulaic approach of Roman town-builders is only too familiar, as is their pragmatism and acknowledgement of local identities. I would argue that the Latin colonies bear witness to an early development of the same *mentalité*. Particularly representative is the Romans' creation of a housing system intended for the colonial context, using standardised, flexible and repeatable house designs differentiated according to property-class. The presence of this system implies that considerable thought had been invested in solving the organisational, social and financial problems associated with the practical business of town construction. The system had crystallised by the second half of the 3rd c., which shows that significantly more was happening during this period than is reflected by the archaeological lacunas. Even if later authors were confused about early Roman colonisation, that should not be taken to mean that those who were responsible for the construction of colonial towns in the later 4th and 3rd c. were themselves unsure of what they were doing.

The post-338 colonisation programme was not implemented gradually: ten Latin colonies had already been founded by the end of the 4th c. I have attempted to highlight the scale of the undertaking to create these new communities. Our modern subdiscipline which studies Ancient Town Planning should take into account the enormous challenges city founders faced on the social, economic and organisational levels. It will then become more difficult to believe that the scale and the success of Roman colonisation could have been achieved without both a well-developed strategy and a tenacity in its implementation.

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Fig. 33. Abdera: reconstruction plan drawing of a residential *insula* (from Hoepfner and Schwandner 1994, 186 fig. 176. © DAI Berlin; A. Tsingas).

Fig. 34. *Prostas* houses presented by Hoepfner and Schwandner (from Hoepfner and Schwandner 1994, 321 fig. 306. © DAI Berlin; A. Tsingas).
Fig. 35. Olynthus: reconstructed *pastas* houses (from Hoepfner and Schwandner 1994, 90 fig. 67. © DAI Berlin; A. Tsingas, W. Hoepfner, E.-L. Schwandner).
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