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Colonial landscapes : demography, settlement organization and impact of colonies founded by Rome (4th-2nd centuries BC)

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Colonial Landscapes

**Demography, Settlement Organization and Impact of Colonies founded by Rome
(4th - 2nd centuries BC)**

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Chapter 1.

INTRODUCTION

1. Roman colonization: a rough outline of the debate and the aim of this book

Roman colonization has predominantly been studied in the context of the larger debates about Roman imperialism and *Agrargeschichte*.¹ With regard to models explaining Roman imperial success, colonies are often seen as vital instruments in the control of conquered lands. These strategically located Roman outposts functioned as bulwarks of the empire and, at the same time, served as a showcase of the attractiveness of Roman life. On this view, colonization facilitated integration and brought stability to the empire.² Another important advantage was that the Roman colonization programme made a rapid growth in essential Roman manpower resources possible. The new land distributed among the Roman lower classes provided a growing number of Romans citizens with enough property to qualify for Roman military service.³

Studies dealing with Roman rural history, on the other hand, tend to emphasize the important emancipatory role of the colonial land distribution programmes.⁴ The allocation of equal parts of newly conquered land offered the plebs an opportunity to escape aristocratic control and exploitation. In the old *Ager Romanus*, the possession of land was the privilege of a few aristocratic families who exploited a workforce of the landless poor or slaves. The situation in the colonized territories was exactly the opposite: they consisted of more or less egalitarian landscapes, farmed by self-sufficient Roman peasants who held their land as private property. In time, these peasant landscapes were absorbed by the expanding domains of the landed elite who used land as a safe investment for the riches they acquired through war and trade. As long as new land was conquered and distributed amongst the lower classes, the vitally important peasants were not endangered, although they were progressively pushed farther away from Rome.

Although the basic functions of Roman colonies (pacification of conquered land and creating a habitat for the Roman farmer-soldier) postulated in these interlinked models are usually considered vitally important in explaining Roman imperial success, surprisingly few in-depth studies into the more practical aspects of Republican colonies have been published.⁵ No doubt, this is to an extent due

¹ All dates are BC unless specified otherwise. For recent studies which deal with colonization in the context of Roman *Agrargeschichte* see for example Gargola 1995 and Hermon 2001. For debates about colonization and Roman imperialism: Coarelli 1992; Patterson 2006. See also Sections 2 and 3 of this chapter.

² Cf. Wiegel 1983, 191.

³ Bernardi 1946; Cornell 1989a, 414.

⁴ For a discussion of this view see Patterson 2006. Also Section 3 with further references.

⁵ Exceptions are discussed below.

to the fact that the literary sources dealing with the mid-Republican period reveal very little about Roman colonies. For instance, resorting to a chronographic style Livy merely records that colonies were founded, which he occasionally fleshes out with some scraps of information about the numbers of settlers, the amount of land they were granted and the circumstances leading up to the decision to found a colony. He only describes some of the preliminary steps which were taken in Rome (the decision to found a colony and the recruitment of settlers), but he has virtually nothing to say about the colonies themselves: what happened there; how they were organized or what their cities and lands looked like.

Detailed literary information about the practical aspects of founding colonies exists for the late Republican and Imperial periods. Of particular interest are the writings of the *agrimensores* which offer us a unique insight into the practicalities of founding colonies in that period.⁶ Other sources are antiquarians like Varro, who gives information about various colonial foundation rituals and geographers like Strabo, who offers glimpses of colonial topography.⁷ Most of these sources are not concerned with developments over time and describe colonial practices as virtually timeless and unchanging phenomena. This synchronic outlook is often reproduced in modern accounts dealing with Roman colonial territorial organization.⁸ In these studies, the colonies of the Mid- or even Early Republic are usually conceptualized as being more or less identical in form and essence to those founded during the Early Empire. All Roman colonies are considered to have been organized using the same basic lay-out, which consisted of a single monumental fortified urban centre with an orthogonal street grid and endowed with such typically Roman political, economic and religious structures as a forum and a Capitolium temple. The colonial countryside has been characterized as consisting of rigid systems of land division and a dense network of isolated, mono-nuclear peasant farms which were situated at regular intervals from each other. This supposedly orderly and monumental appearance of colonial territories would have articulated a strong involvement of the central government in the creation of these landscapes and suggests that a fully crystallized idea of Roman colonial territorial organization developed early in Roman history.

Recently, however, revisionist studies have cogently argued that the reconstructions of the topography of Roman colonies have been seriously biased by the desire of the archaeologists working in these colonial towns to find traces of the State-organized colonial landscape described in the sources.⁹ This particular preconception, so it is argued, blinded their ability to recognize different plans or ideologies in the archaeological record of the colonial settlements. So far, the revisionist studies have focused in particular on urban topography and on institutional aspects of Roman colonization. Surprisingly little attention has been paid to the organization of the rural territory. In fact, several proponents of the revisionist school argue that the traditional model for the rural aspects of the

⁶ For these texts see Campbell 2000.

⁷ Cf. Sections 2 and 3 below.

⁸ E.g. Brown 1980; Gargola 1995.

⁹ Section 3 with references.

colonization programme might be correct.¹⁰ But how likely is it, in a scenario in which the role of the central government of Rome is downplayed, that well-organized city-states would have emerged soon after the arrival of the colonists, and that ambitious land reforms and rigid division programmes leading to orderly colonial landscapes would have been carried out?

This book critically analyses the evidence for the existence of such landscapes. The first chapters concentrate on the concept of the densely populated, more or less egalitarian peasant landscape, believed to be characterized by orderly spaced, isolated farmsteads. In recent years, several mid-Republican colonial territories have been subjected to a thorough archaeological examination. Although at first the results were believed to corroborate the model of the peasant landscape, on closer inspection it was realized that in fact only very few traces of the first generation of colonists had been identified.¹¹ Generally speaking, this is explained as the result of the fact that survey archaeology is not suited to recording the more modest settlement sites.¹² Colonists are supposed to have been recruited from the poorest, mostly landless sections of the population and the limited resources of these people allowed them to establish only very modest farms which, because of a very low living standard and sober life-style, have left hardly any traces for an archaeologist to recognize.

Undeniably, for all sorts of reasons field surveys often fail to produce reliable quantitative information about ancient landscapes. Consequently, there is a great risk that there are few recognizable traces from periods when construction techniques were simple and consumption of (diagnostic) ceramics was low.¹³ However, it is doubtful whether this methodological problem is sufficient to explain the problem of the missing sites. In Chapter 2, I shall argue that the theory which explains the missing early colonial sites as a reflection of low levels of consumption is impaired by an important methodological weakness: it too easily accepts a preconceived model of scattered settlement. The hypothesis proposed is that the low compatibility percentage is not only the result of archaeological recovery rates, but also an outcome of mistaken aprioristic expectations. Before this problem can be tackled, an attempt must be made to establish how low the degree of compatibility between the expected peasant landscape and the findings of survey archaeology actually is. This analysis will be carried out by first examining the demographic information about the size of colonial populations in the literary sources, which is consequently confronted with the available archaeological data.

In Chapter 3, the concept of the *ager divisus* will be examined in detail. These geometrically land division systems are supposed to have clearly marked the living spaces of the migrant colonists. On this view, colonial settlers formed a more or less closed community which was separated both

¹⁰ Bispham 2006, 76-77.

¹¹ Celuzza and Regoli 1982; Rathbone 1983; Hayes and Martini 1994, 36; Attolini, et al. 1991, 144, and Arthur 1991, 100.

¹² E.g. Rathbone 1981, 17; Rathbone 1993; Rathbone 2008 and Scheidel 1994, 11. A slightly different explanation is that colonists lived in very simple houses because they had poured all their energy into building the requisite public structures (Celuzza and Regoli 1985, 51) or, that as a result of the Gallic invasions and Punic Wars early settlements were short-lived and therefore difficult to recognize (Dyson 1978, 259).

¹³ But see Section 2.4 for a nuancing view.

socially and spatially from those indigenous populations which had not been included in the land division schemes. The remaining indigenous inhabitants are usually thought to have dwelled in the more marginal lands situated at a greater distance from the colonial town centre, where they continued to pursue their traditional way of life based on villages. Since the existence of densely populated and orderly divided colonial landscapes cannot be demonstrated by the results of survey archaeology (Chapter 4), evidence of their existence depends entirely on the literary sources and on the traces of land division programmes which have been recognized on aerial photographs of territories known to have received colonists. I shall argue that the dating of these grids is problematic and that, at least for the pre-Punic War period, they cannot be convincingly connected with the creation of colonial landscapes.

The final chapter looks at the fate of the indigenous population. Both the literary sources and the archaeological record demonstrate that, contrary to the traditional view, a substantial indigenous population survived in most colonial territories. My hypothesis is that, at least in the early years of the colony, most of these people were not included in the colonial community but continued to form a separate socio-political entity. However, this socio-political differentiation might not have had a spatial correlate and there is good reason to believe that both communities shared a single territory and cannot be distinguished on the basis of either their settlement location or their organization. Such an assumption also questions the view that colonies were territorial units in which all dwellers were part of the same socio-political community. Above all else, the colony was a social body which only gradually became a clearly definable territorial entity.

First, however, in the remainder of this chapter, the traditional models and the recent revision will be discussed in more detail.

2. Conventional models

2.1. *The colony as an imperial landscape*

Without doubt, the most influential study dealing with Roman colonization is Salmon's *Roman colonization under the Republic* published in 1969.¹⁴ Not only is this study one of the very few monographs written on this subject, it is the most authoritative and frequently cited study in both the Anglo-Saxon as well Italian and French research traditions.¹⁵ Although Salmon could draw on a rapidly expanding archaeological data-set, his study is principally concerned with the literary tradition. As he himself modestly states in the introduction to his book, he does not set out to revolutionize traditional conceptions of the phenomenon colony, but seeks to collate what is known or guessed

¹⁴ Salmon 1969.

¹⁵ Other synthetic studies which deal with colonization such as Bernardi's *Nomen Latinum* (Bernardi 1973) and Laffi's recent *Colonie e municipi nello stato romano* (Laffi 2007) focus on juridical aspects of colonization (e.g. the origin of Latin rights and questions about government and so forth). For recent studies which deal with colonization in the context of Roman *Agrargeschichte* see Gargola 1995 and Hermon 2001. For synthetic studies which deal with colonial urban topography see Sommella 1988, Lackner 2008, Sewell 2010.

about colonies and provide an up-to-date synthesis.¹⁶ This synthesis was much needed since before his time the study of Roman colonization had been intertwined with that of the larger debates on Roman imperialism and *Agrargeschichte*, and was rarely studied as a separate topic.¹⁷

Even though Salmon has made a bid to combine elements of different research traditions, his prime focus is undoubtedly on the role of colonization in the Roman conquest of Italy and his book is clearly an attempt to demonstrate that the Roman colonization programme was a vital component, if not the most important one, of the Roman hegemonial strategy, at least in the period before the Social War.¹⁸ Throughout his book, he strongly emphasizes that colonies were primarily instruments of Roman power, designed and directed by the Roman State.¹⁹ In short, colonization according to Salmon was State business, a well-organized and centrally coordinated enterprise overseen by Roman magistrates.²⁰ Such an idea was not entirely new and elements of it can be traced back to late Republican texts which comment that the colonies of Republican times were founded as strategic outposts to function as bulwarks of the empire (*propugnacula imperii*).²¹

¹⁶ Salmon 1969, 11.

¹⁷ For example, in the first volume of his *Römische Geschichte* (Mommsen 1881), Mommsen does not discuss Roman colonization separately, even though there are several thematic chapters on such topics as Religion, Law, Agriculture, Art and *Volkswirtschaft*. In fact, this is no different from recent handbooks on Roman history which also discuss Roman colonization either in the context of one of these broader topics, or not at all (see below). On the historiography of Roman colonization see Terrenato 2005 (with further references).

¹⁸ Salmon 1969, 11. He also discusses (especially in the introduction and appendix) such issues as land division and colonial city planning, but only in a very general manner.

¹⁹ Salmon 1969, esp. 13-15. The strategic advantages of the Roman colonization programme were already discussed in such Medieval works as Macchiavelli (*Il Principe* III, *Disc.* II 6; on this see Millar 2002, 75-76). For a recent discussion of the strategic function of colonies, see Patterson 2006, 191-193.

²⁰ Salmon traces the origin of this successful tactical tool back to the Regal and early Republican periods. He argues that even before the Cassian Treaty (493), Rome and the Latins had already formed alliances in order to liberate parts of Latium which had fallen under the rule of alien intruders and to expand the area of territory under Latin control. Salmon believes that an important element in this co-operative Latin military strategy was the establishment of communities of soldier-settlers at the Latin frontier. These functioned as permanent strongholds in the defence of Latin territory against any renewed enemy threat. For problems with this view see Chapter 2.

²¹ Cic. *Leg. agr.* 2.73; similar statements in Cic. *Font.* 1; Sic. Flac. *De cond. agr.* 135L; Hor. *Sat.* II.1.35. Indirect evidence comes from the close relationship drawn in the sources (Livy in particular) between the location and chronology of colonial foundations and the Roman frontline (Salmon 1969).

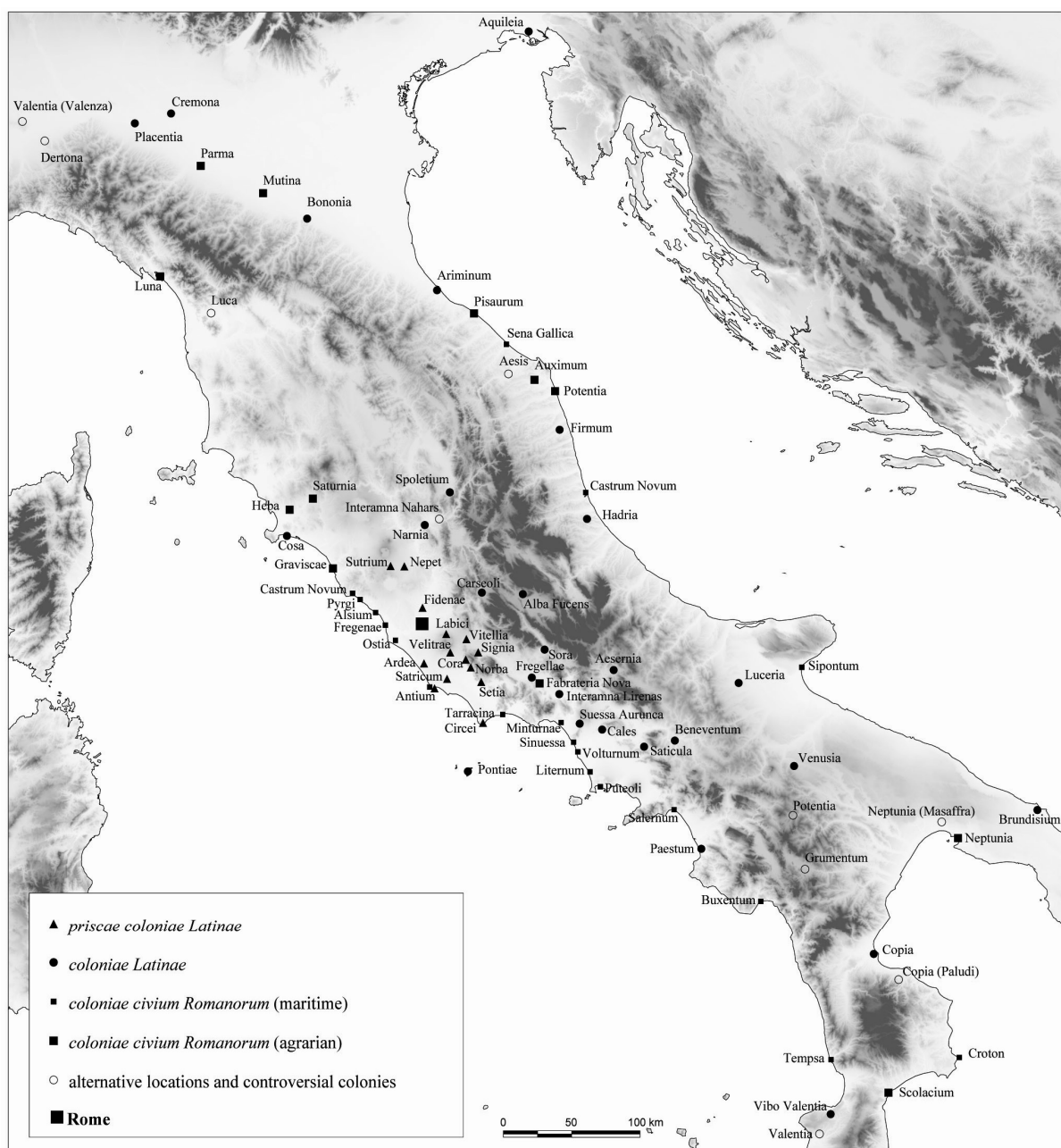


Fig. 1: Roman and Latin colonies founded in Italy from the early Republic to the Gracchi.

Table 1: Salmon's list and categorization of colonial foundations

priscae coloniae Latinae

Romulus	Fidenae
501	Cora
495	Signia
494	Velitrae
492	Norba
467	Antium
442	Ardea
418	Labici
395	Vitellia
393	Circeii
385	Satricum
383	Setia
382	Sutrium
382	Nepet

coloniae Latinae

coloniae civium Romanorum (maritime)

338		Ostia
338		Antium
334	Cales	
329		Tarracina
328	Fregellae	
314	Luceria	
313	Saticula	
313	Suessa Aurunca	
313	Pontiae	
312	Interamna Lirenas	
303	Sora	
303	Alba Fucens	
299	Narnia	
298	Carseoli	
295		Minturnae
295		Sinuessae
291	Venusia	
289-283	Hadria	
289		Sena Gallica
273	Cosa	
273	Paestum	

coloniae Latinae iuris Ariminensis

268	Ariminum	
268	Beneventum	
264	Firmum	
264		Castrum Novum
264		Pyrgi
263	Aesernia	
247		Alsiurn
246	Brundisium	
245		Fregennae
241	Spoletium	
218	Placentia	
218	Cremona	
199		Puteoli
199		Salernum
197		Volturnum
197		Liternum
194		Sipontum
194		Buxentum
194		Croton
194		Tempa
193	Thurii Copia	
192	Vibo Valentia	
189	Bononia	
<i>coloniae civium Romanorum (agrarian)</i>		
184		Potentia
184		Pisaurum
183		Saturnia
183		Mutina
183		Parma
181		Gravisciae
181	Aquileia	
177		Luna
157		Auximum
128		Heba
124		Fabrateria Nova
123		Neptunia
122		Scolacium

Most modern studies also emphasize the strategic importance of the Roman colony as a vital part of the larger imperialistic strategy of Rome.²² Good examples of this are two studies by Coarelli which were published in 1988 and 1992. In these articles Coarelli makes a vigorous response to ‘primitivistic’ studies on Roman Imperialism which explain Roman expansion in terms of the result of *Fortuna*, rather than *Virtus*.²³ His argument is based on the systematic way in which colonies were planted in conquered territory and subsequently connected with Rome by consular roads. According to Coarelli, such a pattern clearly attests to central planning and strict organization behind the imperial aspirations of Rome.²⁴ This state-organized and strategic conception of the colony is also that which prevails in most recent handbooks. It is, for example, illustrative that in the Blackwell Companion series, Roman colonization is not discussed as a separate theme in the Roman Republic volume, but is included in the companion volume dealing with the Roman army, in which the strategic function of colonies is explicitly stressed and any other aspects of colonies are regarded as incidental by-products.²⁵

Apart from their control functions, colonies are often attributed another additional important strategic quality, namely that of bringing Roman culture to the conquered people; a function which led to cultural assimilation and eventually political unification.²⁶ This idea is rooted in eighteenth-century colonial theory which stressed the importance of the colony as a bringer of civilization to conquered areas. More nuanced views can be found in many modern studies, especially in those dealing with Romanization processes.²⁷ Literary evidence for this assumption is especially recognized in a passage of Aulus Gellius which states that, unlike *municipia*, colonies were close copies of the mother city.²⁸ The concept of islands of Roman urban culture spreading out over the commonwealth fits in well with

²² E.g. MacKendrick 1952; Gabba 1988; Laffi 2007, 16.

²³ Coarelli 1992, 24. In its ultimate form, the primitivist scenario describes the Roman military strategy as motivated by ad hoc decisions and predominantly defensive in nature, which more or less accidentally resulted in an empire (e.g. Galsterer 1976). The doctrine of defensive imperialism can be traced back to Mommsen. The seminal study on the nature of Roman imperialism is Harris 1979; see esp. chapter 5.

²⁴ He calls this a ‘conquest-control’ system, as opposed to the ‘conquest-integration’ goal which was achieved by creating *municipia* (Coarelli 1992, 24). Discussion of this in Patterson 2006, 191-193.

²⁵ Broadhead 2007, esp. 152. This is no different in the other handbooks. In both the Routledge handbook on early Roman history (Cornell 1995) and the Cambridge companion (Flower 2006), Roman colonization is discussed primarily in the context of the expansion of Rome in Italy. Besides the strategic component, Cornell, more than the other studies, also stresses the importance of colonization in the struggle between the orders and for Roman demography (discussed below).

²⁶ Cf. Wiegel 1983, 191.

²⁷ A discussion of this in Terrenato 2005, 62-64 with references. For a recent study which takes such a perspective see Torelli 1999, 2-5.

²⁸ Gell. *NA* 16.13.8-9. Apart from the passage in Gellius which describes the colonial situation in the imperial period, very few direct references to the urban mimic concept appear in the surviving sources. In fact, in the passage of Cicero referred to above, colonies are explicitly contrasted to towns. However, some indirect literary support for the Gellian model is found in Varro (*Ling.* 5.143), who describes how in older writings colonies were called *urbes* because they had been founded in the same manner as Rome, according to the ancient Etruscan *sulcus primigenius* ritual in which the founder of a city ploughed the ‘primeval’ furrow with a yoke of a bull and a cow to mark the course of the future town walls. Other antiquarian texts too describe Romulean foundation rituals which were still employed in more recent colonial foundations (e.g. Plut. *Rom.* 9 and 11; Festus 310-312L). Although continuity from Romulean times is highly unlikely, these passages do illustrate that at least in the late Republican period a strong ideological link existed between Rome and its colonies. According to various scholars, there is evidence to suggest that the set of founding rituals and practices described in the late sources, although not Romulean, is older than the late Republican period, and is not an invention of these antiquarians (esp. Gargola 1995). This is demonstrated by the fact that traces of the practices described can be found in the literary and archaeological record of the mid-Republican period. For example, the *sulcus primigenius* ritual is mentioned in the writings of Cato the Elder in the second century (Cato *Fr.* 18 P).

modern views which see a civilizing mission (closely connected with urbanization) as an integral element of imperialism. One of the underlying ideas is that, if an empire is to be successful in the long run it cannot be based purely on repression; it needs an element of seduction. Civilization performed this function by acting as an effective integration stimulus; it brought ‘betterment and happiness’ to the colonized and at the same time stability to the empire.²⁹ Hence, the colony was more than just a symbol of power; it also highlighted the attractiveness and superiority of the colonizers’ culture.

The old paradigm found fresh support in the large-scale archaeological excavations which were undertaken in colonial *oppida*, especially in the first decades after World War II. Excavations directed by Brown in the Latin colony of Cosa, for example, revealed for the first time the spatial and monumental aspects of the Roman colonization enterprise in great detail (Fig. 2).³⁰ The results were staggering: the colony closely mirrored the planning of its mother city, just as the sources had announced they would do. Subsequent excavations carried out in the colonies of Alba Fucens, Fregellae and Paestum reinforced this view, since all these towns seemed to have been established on the same basic scheme.³¹ The central elements in this ‘urban kit’ are a *forum*, among whose functions was to be a voting place, a *comitium-curia* complex (Fig. 3), *atria publica*, and in the religious sphere the temples for the Capitoline Triad and Concordia.³² The forum of Cosa even housed a prison, more or less in the same place as that in the *forum Romanum*.³³ This uniformity in the archaeological record, it was believed, could not have been a spontaneous development and was convincing evidence of a high level of central co-ordination and planning behind these colonial events.³⁴

²⁹ Cf. Haverfield 1912. See Mouritsen 1998 esp. 59-86 for a discussion of how cultural unification was considered a necessary prerequisite for political unification especially in eighteenth- and nineteenth-century Romanticist studies.

³⁰ Synthesis in Brown 1980.

³¹ Alba Fucens: Mertens 1969; Fregellae: Coarelli and Monti 1998; Paestum: Greco and Theodorescu 1980; Greco and Theodorescu 1983, Greco and Theodorescu 1987; Greco 1999; Bragantini 2008.

³² Brown also recognized traces of the foundation rituals described in the literary sources. Excavations at the *arx* of Cosa revealed a pit in which organic material was found near the later Capitolium temple (Brown 1980, 16-17). This feature evoked the descriptions in Plutarch (*Rom.* 11) and Ovid (*Fast.* 4.820-24) of the *mundus* of Romulus: a hole in the ground in which the first fruits of the land were deposited along with the soil from their homeland. Moreover, a quadrangular platform was recognized nearby which was interpreted as a *templum augurale* (Plut. *Rom.* 9; Festus 310, 312L), thought to have been used during the inauguration rituals of the colony which formally established its *limites* (Brown 1960, 11-12; Torelli 1966; Brown 1980, 16-17; Scott 1988, 75). See however, Bispham 2006, 96-97 who rejects these interpretations (discussed also below).

³³ Brown 1980, 31-32.

³⁴ Also, the close correspondence in terms of spatial organisation and housing to the newly founded Late Classical and Early Hellenistic cities of Olynthos and Priene is striking and could be taken as evidence for central planning of these towns (Sewell 2010, who, however, remarks correctly that the archaeological evidence for the existence of Latin and Roman towns designed in this Hippodamic tradition dates predominately to the second century).



Fig. 2: Cosa, reconstructed plan of the settlement in the early second century BC (from Fentress et. al. 2003, 24 fig. 10).

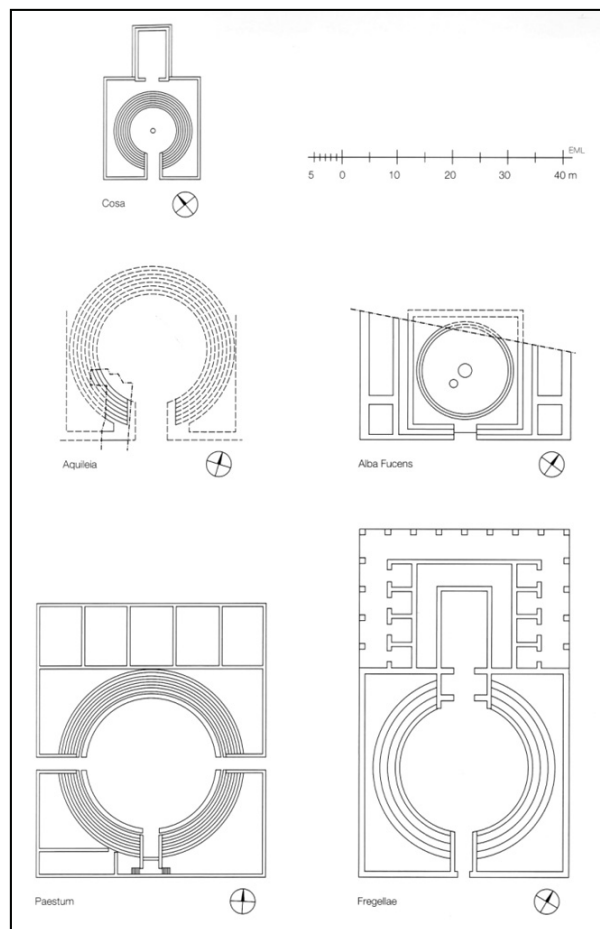


Fig. 3: Comitua from Latin colonies (from Lackner 2008, 261).

In rural territory the most striking attestation to the State-organised character of Roman colonization was recognized in the large-scale land division programmes which allegedly imposed a rational organization on previously ‘organic’ indigenous landscapes.³⁵ At the same time, these divided landscapes tied in with another idea which has profoundly influenced modern understanding of the Roman colony, namely the concept of the egalitarian, autarchic farmer-soldier society.

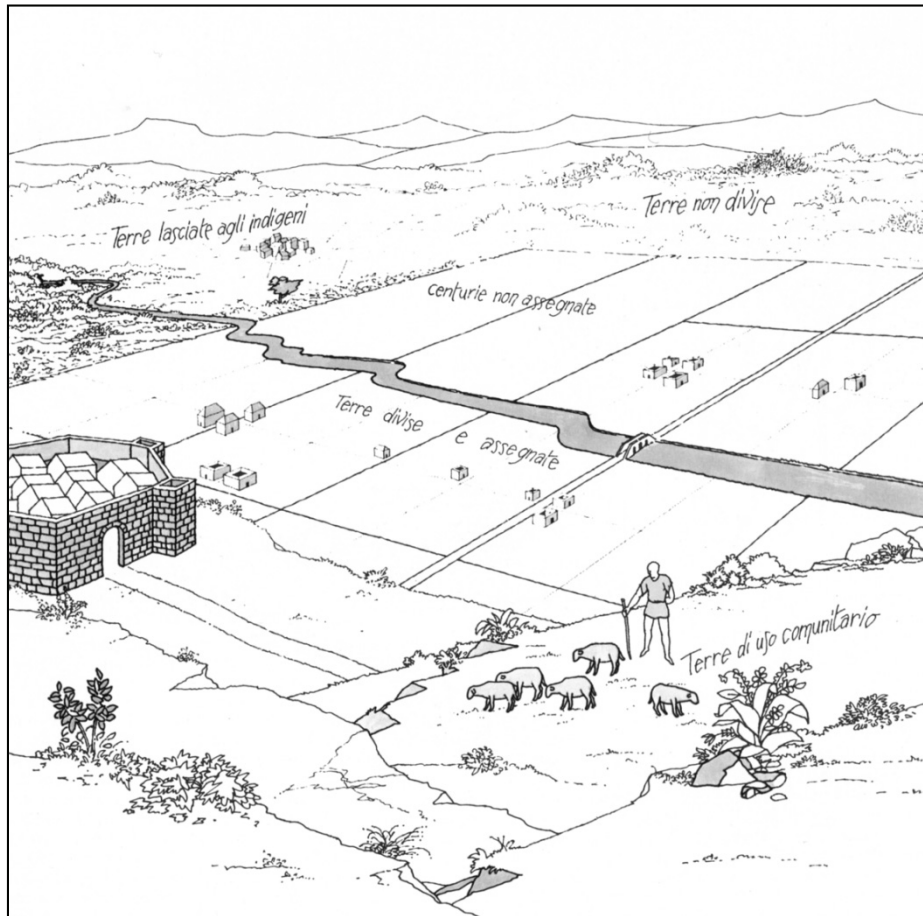


Fig. 4: Artistic reconstruction of a Latin colonial landscape (by G. Moscara in: *Misurare la terra; centuriazione e coloni nel mondo romano*, 129).

³⁵ E.g. Quilici 1994, 127, 130; Gargola 1995, 87; Campbell 1996, 25. For the late Republican period evidence for the practice of meticulously dividing large areas of land into plots of equal size is clearly presented in the writings of the *agrimensores* (Campbell 2000). Confirmation of an early origin of this custom is found in the literary sources which describe the distribution of equally sized allotments in mid-Republican colonies and, most importantly, in the many traces of Roman land division systems which were recognized on aerial photographs of colonial territories of the mid-Republic. For a recent discussion of this evidence, see Quilici 1994; Chouquer, et al. 1987. The classic example is the extensive centuriation discovered in the Po Valley (Chevallier 1983). See also Schmiedt 1989 for excellent aerial photographs of Roman colonial land division grids. For problems with the view that large-scale colonial land division developed early in Roman history see Chapter 3.

2.2. *The peasant republic*

The connection between the colony and Rome's imperial success is not limited to the supposed strategic qualities of the former (both as bulwarks of empire and vehicles for integration), but also exists in its aspect as the habitat of the self-sufficient smallholder, who is seen as the backbone of the successful Roman army.³⁶ With his life of hard work, discipline, high moral standards and abstention from luxuries, the Roman peasant was considered ideal soldier material. As a landscape divided equally among peasants, therefore the colony was the perfect soldier society. Especially in periods of land shortage in the *ager Romanus* resulting either from overpopulation or from the formation of large slave-staffed estates owned by the elite, colonization was an effective measure by which to prevent the proletarianization of peasants (and concomitant loss of manpower) because it offered landless farmers the opportunity to farm new soil.³⁷

The existence of such peasant landscapes in mid-Republican Italy is generally accepted.³⁸ The assumption is based on literary sources which, as we will see later, appear to have been corroborated by archaeological findings. In the literary tradition their existence can be inferred from late Republican texts lamenting their gradual disappearance. Moralists such as Cato and Plutarch (probably representatives of a broader group of conservative elites) especially were quick to express their concern about the loss of traditional rural culture in their own time and the waning of the high morals and conservative life-style allegedly associated with it.³⁹ They ardently idealized the time when these values prevailed in Roman society; a period which they considered to have been the golden age of Roman civilization.⁴⁰ In their eyes, rustic society based on a sober military ethos had been seriously endangered by the influx of the enormous riches (especially slaves) which poured into Rome after the conquest of the Mediterranean and by the decadent life-styles this affluence had generated. Roman aristocrats abandoned their moderate agricultural-military existence and became commercial entrepreneurs or absentee landlords. As part of the same process, simple farmers were pushed off their lands by the advance of slavery and by the spread of large-scale commercial cash-crops farms. The deracination of Roman peasants caused social and moral problems and also resulted in the loss of the best Roman soldiers.

This conceptual framework was readily accepted in Western historiography since it agreed with contemporary sentiments and theories about human society. The idealization of the disappearing rural world, for example, tallied beautifully with eighteenth-century conservative romanticist theories

³⁶ Perhaps the clearest proponent of this view is Toynbee 1965a, 290-293. He argued that the traditional rural economy was the basis of the military strength of the State. The Romans, just as the other strong military power of the period, the Macedonians, were an anachronism in the Hellenistic World which had already transferred to cash-crop farming and even slave plantations. The economic backwardness is seen as an important reason for the imperial success of Rome. The subsequent economic transformation after the Punic Wars, the beginning of the end of it all. The vital importance of the peasant (*assiduus*) to the Roman army is generally accepted (recently Rosenstein 2004).

³⁷ Cf. Bernardi 1946; Cornell 1989a, 414.

³⁸ Cf. Hopkins 1978, 15-25.

³⁹ On this see Toynbee 1965b, 155-189, 296-312; Dyson 1992, 26-27.

⁴⁰ Archetypal examples of good leaders are Cincinnatus and Dentatus. See also the story of Atilius Regulus (Val. Max. 4.4.6), who was plunged into poverty when he had to leave his 7 *iugera* farm unattended during a period of military service abroad.

which, in reaction to the radical transformations of Western society during the period of industrialization, propagated ‘traditional’ ways of life.⁴¹ It simultaneously appealed to Marxist-orientated scholars who recognized in the literary accounts a change in the mode of production, from a society dominated by small-holders (the ancient mode of production) in which the nuclear family formed the basic unit and market production was very limited, to a proto-capitalistic economy, based largely on the exploitation of slave labour.⁴²

New support for the view that mid-Republican Roman society was essentially based on a peasant economy has been found in the results emerging from survey archaeology. Since the mid-1950s, various large-scale field reconnaissance projects have recorded the existence of large numbers of small rural sites scattered all over the Italian countryside.⁴³ This configuration of settlement convincingly matched the historically expected landscape of smallholders.⁴⁴

However, more recent studies have started to question the view that Rome was essentially a peasant society before the Punic Wars. It is now argued that fundamental socio-economic changes began much earlier than the classical scenario suggests; at least several decades before the Roman conquest of the Hellenistic empires. For example, the emergence of a slave-based economy is back-dated to at least the fourth century.⁴⁵ But some form of tenancy is also likely to have existed in Republican Rome as early as the fifth century.⁴⁶ The archaeological evidence which was believed to support the peasant model is rejected in these studies on the grounds that the archaeological evidence used to corroborate the classical scenario ‘is too partial and too enigmatic to have any serious bearing on the question of changing patterns of land tenure.’⁴⁷

⁴¹ Exemplary is Tönnies’s *Gemeinschaft und Gesellschaft* (Tönnies 1887). See for a discussion Mitzman 1973, 39-134, and Dyson 1992, 11-14.

⁴² See especially the various papers published in the three *Società romana e produzione schiavistica* volumes of the Gramsci Institute (Giardina and Schiavone 1981), especially the contribution of Carandini (Carandini 1981). The scheme is also accepted in the well-known studies of Toynbee 1965b, Brunt 1971 and in the famous functionalistic model of Hopkins 1978. Although these studies disagree about what caused these changes, there is a strong consensus about the outcome.

⁴³ The seminal article is Frederiksen 1970-1971 who collected the evidence present at that time (especially the results of the South Etruria survey (synthesis of the results in Potter 1979). The argument is accepted in more recent studies, e.g. Dyson 1992.

⁴⁴ Surprisingly, however, the same projects found few traces of its disappearance in the late Republic. The data emerging from survey archaeology seemed to demonstrate that small, isolated sites remained the dominant type of settlement at least until the first century, and even in the Imperial period the small site did not disappear, but co-existed with other types of settlement such as the villa. On the basis of this evidence, various scholars started to reject the radical socio-economic transformation scenario and argued for moderate and gradual change (Cf. Frederiksen 1970-1971; Dyson 1992). The textual sources in this tradition are considered highly problematic because they have clear political or ideological motives. The rustic, virtuous and conservative ideal of Cato, for example, can be explained as a construction of this *homo novus* attempting to legitimize his newly acquired position; mainly in opposition to the Hellenistic life-style of his opponents in the Senate, the mighty family of the Scipiones. For the Gracchan propaganda: Bernstein 1978, 71-101; Nagle 1976. See Garnsey 1976, 224 for the view that in Roman times, just as in the twentieth century, the idealization of the peasant was “primarily an expression of nationalist ideology of the ruling class of a militaristic state.”

⁴⁵ Finley 1980; Cornell 1995, 333, 393-394. Especially the abolition of the debt-bondage system, legally enforced in the *lex Poetelia Papiria* at the end of the fourth century, in his view is a strong indication that the traditional *nexi* had been replaced by slaves. In addition, Finley argues that the sources unmistakably reveal that there was a marked trend towards the creation of larger estates in this period.

⁴⁶ Cf. De Ligt 2000. For a recent critique on De Ligt’s thesis see Rosenstein 2004, 181-182. For a response see De Ligt 2007. See also Terrenato 2007 for the theory that in archaic and hellenistic Roman society peasants were probably strongly tied to the elite.

⁴⁷ E.g. Cornell 1996, 110. A series of assumptions which need to be made in order to translate archaeological data into meaningful historical information, such as the precise chronology of sites, the socio-economic status of the people who

At first sight, the early emergence of a commercial slave-based or tenant-based agrarian economy dominated by wealthy elites seems to contradict the image of Rome as essentially a peasant Republic but this is only partly true. Cornell argues that most of the impoverished but free country-dwelling citizens who were pushed off of their traditional farms by the advance of slavery and by the appearance of large-scale cash-crop enterprises, signed up for settlement in colonies where they could continue their lives as simple subsistence farmers; thereby reinforcing the vitally important peasant-soldier class. As long as new land was conquered and distributed, the existence of the soldier-farmer would not be threatened. War in this clever system reproduced its own ideal soldiers.⁴⁸

A central feature of this understanding of the mid-Republican Roman economy is that colonial landscapes are conceptualized as highly egalitarian peasant landscapes, at least in their early years. This rustic image seems to contradict the view of colonial landscapes as impressive imperial and culturally superior territories (Section 2.1). The emphasis on urban culture as an important aspect of colonization especially is at odds with the concept of the rustic soldier-farmer, at least in the moral frameworks of the late Republican period which associated urban culture with decadence. Nevertheless, the ‘integration by cultural superiority’ thesis is not necessarily endangered. The concept of a peasant republic easily replaces urbanity as a symbol of Roman supremacy. It is often considered an economically and morally superior form of socio-economic organization which was attractive to colonized societies acquainted only with strongly hierarchical modes of production dominated by serfdom and pastoralism.⁴⁹

inhabited different types of settlements and the percentage of sites which have been detected (or missed) are considered to be especially controversial (Scheidel 2008).

⁴⁸ Cornell 1995, 393-394.

⁴⁹ On this see Rathbone 1983, 160-161 who, in his review of the *Società romana e produzione schiavistica* volumes, reaches this conclusion. In particular on the more primitive pre-Roman modes of production see Lepore 1981 and Torelli 1999, 5-8.

3. Deconstruction and revision

3.1. Historiographical issues

In recent studies, the State-organized and premeditated character of the Roman colonization programme has increasingly been questioned. It is argued that the traditional view is the result of anachronistic ideology and schematization.⁵⁰ An initial fundamental observation made in these studies is that the colonial history described in the literary sources is in fact a late-Republican construct of antiquarians and historians who tried to piece together a consistent account from scraps of evidence which were partly unintelligible to them. Various pieces of information which derived from different contexts, periods, and traditions were moulded into a coherent model. The assumption that the authors responsible for this reconstruction could not rely on primary documentation is illustrated by the confusion in these sources about various fundamental aspects of the colonization programme. For example, there are marked differences in the lists of colonial foundations provided by Dionysius, Livy and Velleius, which suggest that these historians had not been able simply to copy this information from some sort of official record, but had had to piece it together.⁵¹ Moreover, the fact that the reports of Asconius and Philip V referring to the number of Roman colonial foundations in the late third century by far exceed the colonial foundations recorded by the annalistic sources is considered very revealing.⁵² These sources might suggest that views on what counted as a colony changed over time and that various colonial settlements were not recorded in the canonical lists of late-Republican times.⁵³ This is also illustrated by two rather obscure episodes in Roman colonial history described in Greek sources. Diodorus and Theophrastus report Roman colonial adventures in Sardinia and Corsica

⁵⁰ E.g. Càssola 1988; Torelli 1988; Crawford 1995; Fentress 2000; Bispham 2006; Bradley 2006.

⁵¹ Crawford 1995. Crawford also points to the confusion which exists about the identity of colonial *triumviri* (Crawford 1995, 188). In the case of Placentia, for example, Polybius, Livy and Asconius all give different possible names for the *Illviri* who supposedly founded the colony. There is also confusion in the sources about who were the triumvirs of the supplement which was sent to Narnia. According to Livy (32.2), two Aelii - Publius and Sextus, both of whom had the cognomen of Paetus and Cn. Cornelius Lentulus were the triumvirs. Plutarch (*Flam.* 1), however, states that Titus Quintius Flaminius was leader and founder of the colonies sent to Narnia and Cosa (clearly the supplements are meant here). Of course, these observations do not demonstrate that the entire annalistic tradition is fraudulent. They merely warn against the possibility of corruption and creative invention. That at least some of the annalists recordings are correct is prettily illustrated by the discovery of an inscription dating to the second century mentioning one of the triumvirs of Aquileia which matches exactly with one of triumvirs recorded by Livy (CIL I², 621 and Livy 40.34). See for the view that the transmission of colonial founders in general is reliable: Oakley 1997, 52-53. Particularly interesting is the lemma of Festus (458) who records the *triumviri* of Saticula (founded in 313) who are not transmitted by Livy. This suggests the possibility that there could have been an official record from which antiquarians could collect their information. In the case of Antium (founded 467) two sources (Livy 3.1 and Dion. Hal. 9.59) record the same (with minor differences) persons as triumvirs.

⁵² Asconius (*Pis.* 3C) states that Placentia (218) was the 53rd or 54th colony the Romans had founded. In the letter of Philip V to the citizens of Larissa (*SIG³*, 543), dated to 214, the Romans are thought to have founded almost 70 colonies. Livy, for example, gives only 47 colonial foundations up to 218. Recently, Northwood 2008 has proposed a solution to the problem. He argues that if the six or seven regal colonies reported by Dionysius of Hallicarnassus are added to the list of 47 colonies reported by Livy, the result is 53 or 54 colonial foundations in 218 and if all the re-foundations of Roman colonies are added up the number is very close to 70. Another possible explanation is that viri settlements were also included in the list of Philip V. More plausible, however, is the theory that the number of 70 colonies mentioned by Philip V was invented to align the Roman achievements with those of Alexander the Great who founded 70 cities (Dench 2005, 123).

⁵³ It is argued that Asconius probably used a second century source (Bispham 2006, 81-82). This is inferred from the detailed information he provides about the foundation of Placentia and the terminology he used to differentiate between the two different types of colonies the Romans founded (<ut *Quiritium aliae*>, *aliae Latinorum essent*). The reference to inhabitants of what later tradition calls Roman colonies as *Quirites* is unique, which could be evidence of its authenticity. However, Northwood 2008 points to the fact that the term *Quiritum* is a modern emendation, which fails to convince.

in the fourth century which do not appear in the other sources.⁵⁴ Moreover, the character of these settlements does not easily fit into the imperialistic model of Roman colonization described above; they did not serve a clear defensive purpose, nor is it likely that they were organized by the Latin League.⁵⁵

Crawford suggests that a process of defining and categorizing Roman colonies probably began in the early second century: the period in which the Latin status was redefined and the related status of Roman and Latin colonies was being debated.⁵⁶ This process of normalization progressively eliminated the more marginal cases of colonization. Rigid categorization of the various different juridical statuses of colonies (for example, Latin, *civium Romanorum*, *priscae Latinae*) perhaps originated only in this period. Bispham argues that a passage of the *lex agraria* of 111 can be interpreted as indicating that this process of normalization was not completed before the end of the second century and that vague categories of colonies continued to exist at least until the municipal reorganization which took place after the Social War.⁵⁷ In a passage dealing with the exploitation of land in the *trientabula*, the agrarian law refers to the otherwise unknown category of the *pro colonia* of Roman citizens or of the Latin name.⁵⁸ The exact meaning of this vague category and the type of settlement to which it refers continue to be debated.⁵⁹ But in these settlements, it is possible to recognize those more marginal colonial settlements which did not meet the criteria for colonial status developed during the normalization process which commenced in the first half of the second century.⁶⁰

Some scholars believe that, despite the continuous process of reshaping colonial history, some traces of an alternative colonial history do survive in the literary record. Càssola, for example, argues that, between the lines of the Gracchan rhetoric of the Late Republic, the outlines of the actual course of events can still be discerned. His first point is that in the archaic period the role of the State in warfare was in fact very limited and that clans (*gentes*) or other forms of semi-private military organizations played important roles in times of war.⁶¹ Since the sources about this period occasionally

⁵⁴ Diod. Sic. 15.27; Theophr. *Hist. pl.* 5.8.1. See Chapter 2 for a full discussion of these reports.

⁵⁵ Other examples of possible colonial enterprises which do not appear in canonical accounts of Roman colonization mentioned by Crawford are: the settlement of la Giostra occupied in the 4th and 3rd century; the colony of first foundation of Valentia 237 mentioned by Vel. Pat. I. 14-15. and small forts which have been found in the mountains near Tivoli. The mysterious Roman *castrum* excavated in Metapontum could also be added to this list, as could Interamna Nahars (Bradley 2000a and 200b, but see Fora 2002; Sisani 2007, 165-168 for doubts and counter-arguments).

⁵⁶ Crawford 1995, 191.

⁵⁷ Bispham 2006, 84.

⁵⁸ Text: *RS I*, *lex agraria*, line 31.

⁵⁹ For a good discussion see Bispham 2007a, 77-80. See also Lintott 1992, 237 who argues that they were men with virgane allotments living in the *ager Romanus*.

⁶⁰ A second period of defining and reshaping colonial status is argued to have occurred after the Social War when the 'Romanness' of all colonies was emphasized (Crawford 1995). This is particularly evident in the case of Appian and Velleius. He suggests that the fact Velleius does not distinguish between Roman and Latin colonies in his list of colonial foundations might reflect the conceptions of Claudius Quadrigarius who wrote after the Social War. Claudius might have obscured the juridical differences in order to emphasize the equal status conferred on all colonies after the passing of the *lex Julia*. According to Bispham 2006, 83-84, the accentuation of the Roman character and origin of Latin colonies can be traced back a little further, to the Gracchan period. The emphasis on the Roman character of Latin settlements fits late 2nd century political rhetoric, possibly used in proposals such as that of C. Gracchus to make Latin colonies Roman.

⁶¹ Càssola 1988, 17. He suggest that *coniuratio*, a form of private military organization based on voluntary participation of both commanders and soldiers (hence a form of war bands), was practised in this period. For similar arguments see Bradley 2006; Chiabà 2006, Terrenato 2007 and Termeer 2010. Exemplary is the military campaign of the *gens Fabia* against Veii,

comment that the settlement of conquered lands was the right of the men who had conquered it,⁶² it can be inferred that colonization in this early period had a more or less private character. The argument is put forward that, rather than being a form of State-sponsored settlement of landless citizens (considered Gracchan propaganda), colonization was an enterprise undertaken by adventurous commanders and soldiers who went out to capture the land they wanted.⁶³ It is unclear when this situation ended. Bradley opts for the late fourth century when the Senate became a really influential body after the passing of the *lex Ovinia*.⁶⁴ Although it is indeed likely that the Senate became the official institution which controlled war and colonization after the Latin War, some sources relating to events in the early third century allude to the marked influence of military commanders in acts of colonization during the third century. An illustration is provided by Dionysius' statement that in 291 the Senate deprived L. Postumius Megellus of his right as the victorious commander to act as a *triumvir* during the foundation of a colony on the territory which he had captured as consul.⁶⁵

Challenging another aspect of the traditional view, some scholars draw attention to the reports about the inclusion of natives in Roman colonies.⁶⁶ In the traditional paradigm, a strong ethnic difference is assumed to have existed between the colonial settlers who were assumed to be migrants from Rome on the one hand and the indigenous population on the other. These ethnic differences were believed to have had marked socio-cultural implications. References in the literary sources about the inclusion in Roman colonies were either marginalized or considered late Republican corruptions.⁶⁷ Bradley, however, argues cogently that these reports are perfectly compatible with what is known about archaic Roman attitudes towards the inclusion of foreign people in the Roman community. For example, the frequency with which the Roman citizenship (with or without suffrage) was granted to various conquered communities during the fourth and third centuries clearly demonstrates the open attitude Rome displayed towards ethnic differences. According to his re-interpretation, the foundation of a colony did not erase all indigenous elements, but should instead be seen as an addition to the existing situation.⁶⁸

which was undertaken on a clan level (Livy 2.48-50). Interestingly, the proposed organization of early Roman colonization is roughly comparable to early Greek colonial adventures (cf. Crielaard 1992/ 1993; Burgers and Crielaard 2007).

⁶² Stated clearly in Livy 2.48, *verum esse habere eos quorum sanguine ac sudore partum sit*, Livy 4.49 on Bola (referring to the soldiers who had conquered it).

⁶³ Càssola 1988, 17 aptly describes the process as follows 'chi voleva la terra andava a prendersela'.

⁶⁴ Bradley 2006, 168; on this law see Cornell 2000.

⁶⁵ Dion. Hal. *Ant. Rom.* 16/17. On this see Torelli 1999, 94. Other possible examples are the land division programme carried out in the territory conquered by Dentatus. Although this is not stated explicitly, the literary tradition suggests he was involved in the distribution of the annexed land (see Forni 1953). Contemporary with the *lex Ovinia* is a land division programme in the territory of Calatia and Nola recorded by Diod. Sic. (19.101) which was divided among his soldiers by the successful commander Quintus Fabius. See Terrenato 2005, 67-72 for the view that *gentes* continued to be an important political force even after that period.

⁶⁶ Bradley 2006. The evidence is discussed in Chapter 5.

⁶⁷ Marginalization in Brunt 1971, 538-545. For the view that these references are anachronistic corruptions: Càssola 1988.

⁶⁸ Bradley 2006. See also Bradley 2000a for the argument that Interamna Nahars was a Latin colony but one which in Imperial times commemorated the founding of the pre-colonial settlement (founded in 673). Bradley argues that this suggests that the installation of a colony in the 3rd century was regarded simply one stage in their history, rather than a formative moment (Bradley 2006, 177). But see Fora 2002; Sisani 2007, 165-168 for arguments against the interpretation of Interamna Nahars as Latin colony. Sisani opts for a *praefectura*.

Recapitulating, recent studies of the historiography of Roman Republican colonization have argued that a strong tendency towards normalization and categorization has distorted our understanding of mid-Republican colonial practices. The beginning of this historiographical tradition can be traced back to the second century and reached its apex in such modern historical studies as Salmon's *Roman colonization under the Republic*. Early ancient attempts seem to have been concerned mainly with the (re)definition of the juridical status of different colonial foundations. One prime concern seems to have been to (re)establish clearly the differences between settlements of the Latin name and those of Roman citizens, but it appears that in the process some parameters of what constituted a colony in general were also set. The outcome of this process was the marginalization or even complete disappearance from official records and historical writings of colonial settlements which did not meet the new criteria. Traces of an alternative colonial history survive in the literary records, but it is hard to establish which reports are corruptions and which contain some authentic elements. The fact that various scholars consider different and opposing elements authentic clearly illustrates the methodological difficulties surrounding such attempts. The selection process requires some aprioristic assumptions on the nature of Roman society, which are generally based on the same literary tradition which is evaluated.

3.2. *Archaeology and the Gellian model*

If the literary tradition is obviously anachronistic, what is then the status of the archaeological evidence which was believed to corroborate the Gellian model? A careful restudy of the archaeological evidence of several colonial *oppida* has shown that many original interpretations were very much affected by expectations derived from the same sources they were supposed to verify. Fentress, for example, has convincingly argued that Brown's reconstruction of Cosa as a 'little Rome' was highly coloured by such literary texts as that of Gellius, and maybe even by his wish to 'excavate the inaccessible Rome'.⁶⁹ His identification of the houses bordering on the forum as *atria publica* and the temple next to the *comitium-curia* complex as the temple of Concordia are based almost exclusively on the assumed parallel with the urban topography of Rome. Fentress states that the available archaeological evidence does not support such a reconstruction and suggests instead that at the beginning of the second century Cosa resembled a hierarchically organized military camp.

Not only is the understanding of colonial *oppida* as little versions of Rome in doubt, but the whole idea that there was a blueprint of what colonial towns ought to look like and that this was implemented under the guidance of a state commissioner and completed soon after the arrival of the colonists is now being questioned. Again in Cosa, house foundations found beneath the temples on the *arx* indicate that the topography of the town changed over time and that the monumental town plan of later times was not envisioned at the outset.⁷⁰ Likewise, a provocative new reconstruction of the urban

⁶⁹ Fentress 2000, 19.

⁷⁰ Fentress 2000, 13-21.

development of Paestum suggests that the *forum* area of the Graeco-Lucanian town was not radically romanized immediately after the arrival of the colonists, but transformed gradually, “without institutional or social change having any close causal relationship with architectural developments”.⁷¹

A similar circular process of interpretation has been recognized in the interpretation of colonial cults.⁷² Probably the best example is the Capitolium temple. Structures identified as Capitolia have been identified in several colonies on the basis of their tri-partite cella and central location on the *arx*. It is often assumed that they were part of the original religious composition of the colonial towns and expressed the close ties between Rome and its satellite settlements.⁷³ However, a careful restudy of the chronology of these temples has demonstrated that they appeared only in the second century, often more than a century after the foundation of the colony.⁷⁴ Moreover, the terracottas, votive materials and inscriptions associated with these buildings are not always easily reconciled with the worship of the Capitoline Triad. Instead, they often point to a different constellation of deities, including for example Hercules or Liber. If this reinterpretation is correct, the symbolic languages expressed in these temples are better understood as referring to a Latin identity rather than to a purely Roman one, although indigenous influences cannot be excluded.⁷⁵ Likewise, the archaeological evidence for the performance of foundation rituals as described in antiquarian sources has dissolved after critical analysis. For example, the square structure at Cosa, which was originally interpreted as an *auguraculum*, has been reinterpreted as the remains of a temple;⁷⁶ and in the area previously identified as a *mundus*, pottery dedicated to Hercules has been found, which is hard to reconcile with a ritual dedicated to Jupiter Latiaris.⁷⁷

⁷¹ Crawford 2006, 67.

⁷² Bispham 2006, 92-122.

⁷³ For a recent expression of this view: Horden and Purcell 2000, 457.

⁷⁴ Bispham 2006 esp. 117-122 who argues that the Capitoline Triad only firmly established itself as a normative model of Roman colonial cult in the Late Republic. On this also Stek 2009, 22-28.

⁷⁵ Torelli 1999, 52-56; Bispham 2006, 95-108.

⁷⁶ Taylor 2002, 66-80; Bispham 2006, 96-97.

⁷⁷ Bispham 2006, 95-96.

Chapter 2.

THE DEMOGRAPHIC LANDSCAPE

1. Introduction

Livy makes the point that the foundation of a Roman colony was a large-scale enterprise which involved the migration of thousands of people; the majority recruited from among the poor who were being offered a new, more promising existence. Livy's description of the Roman colonization programme is largely framed from an administrative perspective, as a series of political decisions about when and where colonies were founded; sometimes supplemented with the number of colonists who were entitled to participate, the amount of land they were granted and the commissioners who supervised the event. The sober, factual style adopted by Livy imbues the colonial accounts with a certain authority; it suggests that the information was derived from some sort of official chronicle.⁷⁸ In fact, most scholars have accepted the information transmitted as genuine.⁷⁹

Recently though, doubts have arisen and a number of scholars have argued that the apparently factual data about colonization, such as the numbers of colonists who are reported to have participated in the colonial adventure, are possibly corrupt.⁸⁰ With regard to the size of colonial populations, this is most clearly demonstrated by the existence of different historiographical traditions, which suggest very different colonial population figures. The first part of this chapter discusses these 'competing' traditions. The aim is not so much to prove Livy right or wrong, but to examine what these alternative narratives reveal about Roman colonization and if they do indeed undermine the Livian tradition. Section 3 explores what happens if Livy's figures are translated into rural population densities. For this exercise two additional variables are required: the size of colonial territories and the percentage of colonists that could have had an urban base.

Section 4 of this chapter is a discussion of what the archaeological record reveals about the demography of colonial landscapes. Archaeology offers a growing and seemingly independent source of information for studying ancient population history, which might offer an interesting touchstone to test the literary tradition. A first analysis of the archaeological record seems to suggest that early

⁷⁸ E.g. Salmon 1969, 17; Oakley 1997, 52-53 (on *triumviri*) and 62 (on colonial foundations); Patterson 2006, 197.

⁷⁹ E.g. Cornell 1995; Bernardi 1973; Broadhead 2007. This acceptance contrast with the rare, more interpretative and narrative elements of the colonial accounts which are believed to have been more likely corrupted by fictional elements (See for a detailed discussion Oakley 1997, 21-108). For example, Livy's narrative decisions to found colonies are often preceded by accounts of social unrest amongst the Roman plebs who demanded, often through the mediation of a popular leader (in some instances even called a *popularis*), a bigger share of the revenues of war. Such a theme carries strong overtones of the socio-political situation of the Late Republic and various scholars have argued that Livy (or the source he used) is clearly wrong on this point (Cf. Càssola 1988). For a more nuanced view see Patterson 2006. Other elements debated in the transmitted colonial narratives are the stories about recruitment problems and the inclusion of natives in colonies.

⁸⁰ Crawford 1995; Bispham 2006, esp. 126. Such a position ties in nicely with more general scepticism voiced in a number of studies on Roman historiography which deny the existence of, or at least the reliability, of the annalistic tradition (e.g. Rüpke 1993). In response, others, most notably Cornell, defend the literary tradition, arguing that there were limits to the creative freedom of Roman historians and annalists and that rhetorical elaborations were only accepted if they did not do violence to traditional facts (Cornell 2005).

colonial landscapes were very thinly populated and that only a fraction of the people suggested by the literary tradition dwelt in these places. The final part of this chapter is composed of a detailed exploration of what reasons might explain this mismatch. Establishing these reasons is not only relevant to our understanding of the demographic landscape, but also, more generally, provides insight into the quality of both data-sets, and, more importantly, the interpretations which can be based on them.

2. Text-based demographic estimates

2.1. *Livy's figures*

By far the most informative source on the demographical aspects of the Roman colonization programme is Livy (see Table 2). In fact, he is the only source which provides information of this kind in a more or less systematic manner. The transmitted numbers are rather standardized and seem to be closely connected to the juridical status of the colonial settlements. The early citizen colonies (the maritime colonies) appear to have received a fixed number of 300 settlers (recorded for Tarracina and the four colonies founded in 197), while 2,000 seems to have been the standard number of colonists sent to the later, so-called agrarian, citizen colonies (recorded for Mutina, Parma and Luna). The quotas for Latin colonies show more variation, but at least for the period between the Latin War and the Second Punic War three figures are recurrent: 2,500, 4,000 or 6,000; after the Second Punic War 3,000 seems to have been the norm.

495	Velitrae	-	coloni ab urbe
442	Ardea	-	cives Romani (and Rutuli)
418	Labici	1,500	coloni ab urbe
393	Volscian frontier	3,000	cives Romani
385	Satricum	2,000	cives Romani
334	Cales	2,500	homines
329	Anxur	300	coloni
314	Luceria	2,500	coloni
312	Interamna	4,000	coloni
303	Sora	4,000	homines
303	Alba Fucens	6,000	coloni
299	Carseoli	4,000	homines
197	Volturnum, Liternum, Puteoli, Castrum Salerni		
	Buxentum	300	familiae (each)
196	Cosa (suppl)	1,000	adscripti
193	Castrum Frentinum	3,000	pedites and 300 equites
192	Vibo	3,700	pedites and 300 equites
190	Cremona & Placentia	6,000	familiae divided amongst them
189	Bononia	3,000	pedites and equites
183	Mutina, Parma & Saturnia	2,000	homines (each)
181	Aquileia	3,000	pedites plus centurions and equites
177	Luna	2,000	cives Romani
169	Aquileia (suppl)	1,500	familiae

Table 2: Livy's list of colonial populations in Italy.

The apparent standardization of colonial population figures makes it possible to make educated guesses about the number of settlers who enrolled in those colonies for which Livy does not provide demographic information. One of the more recent examples of such an attempt is Cornell's study, in which he gives the probable population numbers for Latin colonies founded between the Latin War and the beginning of the First Punic War (see Table 3).⁸¹

<i>Date BC</i>	<i>Colony</i>	<i>Region</i>	<i>Adult male settlers</i>	<i>Cum. total</i>	<i>Area (km²)</i>	<i>Cum. total</i>
334	Cales	Campania	2,500 ⁺	2,500	100	100
328	Fregellae	Latium	4,000	6,500	305	405
314	Luceria	Apulia	2,500 ⁺	9,000	790	1,195
313	Saticula	Samnium	2,500	11,500	195	1,390
313	Suessa Aurunca	Latium	2,500	14,000	180	1,570
313	Pontiae Islands	(Latium)	300	14,300	10	1,580
312	Interamna Lirenas	Latium	4,000 ⁺	18,300	265	1,845
303	Sora	Latium	4,000 ⁺	22,300	230	2,075
303	Alba Fucens	Central Apennines	6,000 ⁺	28,300	420	2,495
299	Narnia	Umbria	2,500	30,800	185	2,680
298	Carseoli	Central Apennines	4,000 ⁺	34,800	285	2,965
291	Venusia	Apulia	6,000	40,800	800	3,765
289	Hadria	Central Apennines	4,000	44,800	380	4,145
273	Paestum	Lucania	4,000	48,800	540 ⁺	4,685
273	Cosa	Etruria	2,500	51,300	340	5,025
268	Ariminum	Umbria	6,000	57,300	650	5,675
268	Beneventum	Samnium	6,000	63,300	575	6,250
264	Firmum	Picenum	4,000	67,300	400	6,650
263	Aesernia	Samnium	4,000	71,300	385	7,035

Table 3: Colonial population estimates of Cornell 1995, 381 (based on Livy).

The general confidence in the reliability of Livy's figures has recently been questioned by a number of scholars who have argued that the seemingly factual data about colonization - the number of colonial foundations, their size and constitutional character - are just as likely to have been invented by Roman annalists and antiquarians as the more narrative elements.⁸² An apt illustration of this problem is the confusion which exists in different sources about the number of colonial foundations and about the identity of the colonial triumvirs.⁸³ These mix-ups are considered to undermine the view that the narratives of the annalists were based on solid contemporary sources, and demonstrate that the deceptively detailed factual data were not copied from an official record, but had to be pieced together. Commenting on to the demographic information provided by Livy, these studies draw attention to the existence of different historiographical traditions which suggest very different sizes for and social composition of colonial foundations.

Intriguingly, the few colonial population figures recorded by the other sources always refer to colonies about which Livy does not offer any information. In that sense the historiographical traditions are complementary (see Table 4). Nevertheless, the scale of the colonization enterprise suggested by

⁸¹ Cornell 1995, 381. His estimates are based on Afzelius 1942.

⁸² Crawford 1995; Bispham 2006, esp. 126. Also Sherwin-White 1973², 76 n. 2 for the view that the reported numbers for maritime colonies may be corrupt.

⁸³ See Chapter 1 for a detailed discussion.

some of these sources diverges significantly from what Livy records. Some revisionist scholars argue that this alternative evidence illustrates that colonial population quotas were not as regular as Livy's list would make them seem and, more fundamentally, that Livy's numbers may be fictional elements intended to emphasize the conjectured state-organized and grand-scale character of the colonial enterprise.⁸⁴ The suggestion implicit in these studies is that in reality these foundations were organized much more haphazardly, without the intervention of firm state control, and that they were possibly also more modest in size.

Romulus	Caenina & Antemnae	300	(Dion. Hal, <i>Ant. Rom.</i> 2.35)
Romulus	Fidenae	300	(Dion. Hal, <i>Ant. Rom.</i> 2.53)
Romulus	Fidenae	2,500	(Plut. <i>Rom.</i> 25. 1-3)
378	Sardinia	500	(Diod. Sic. 15.27)
4 th century	Corsica	25 ships	(Theophr. <i>Hist. pl.</i> 5.8.1)
291	Venusia	20,000	(Dion. Hal. <i>Ant. Rom.</i> 16/17.5)
218	Placentia	6,000	<i>homines</i> of which 200 <i>equites</i> (Asc. <i>Pis.</i> 3C)
218	Placentia and Cremona	6,000	colonist each (Pol. 3. 40.3-4)
123	Balearic islands	3,000	Veterans who had fought in Iberia (Strabo 3.5.1.)
123	Junonia (Carthage)	6,000	(App. <i>B Civ.</i> 1. 24)
122	12 colonies of Drusus	3,000	(Plut. <i>C. Gracch.</i> 9)

Table 4: Colonial populations in other sources.

2.2. Competing traditions?

In the surviving literary record only two figures are noted which suggest very different colonial population numbers to those noted by Livy. The first is Diodorus who, under the year 378, records in a chronographic style that the Romans sent 500 colonists to Sardinia with a tax exemption.⁸⁵ This is substantially lower than the figures Livy records for contemporary colonies (2,000 and 3,000).⁸⁶ The credibility of the colonial adventure described is supported by two sources: an obscure passage in Theophrastos, probably also discussing the fourth century, which claims that the Romans sailed to Corsica with twenty-five ships, possibly to found a settlement there, and by the terms of the Second Romano- Carthaginian treaty,⁸⁷ one of whose clauses specifically forbids Romans to found *poleis*

⁸⁴ Esp. Bispham 2006, 126. See general introduction for a detailed discussion of the recent critique on the State-organized view on Roman colonization.

⁸⁵ Diod. Sic. 15.27. The commentary of the Loeb edition (Oldfather 1954) suggests that Diodorus possibly confused Satricum (colony founded 385) with Sardinia (after Wesseling). On this see also Stylianou 1998, 243-244. The emendation seems a rather forced attempt to reconcile Livy's account with that of Diodorus. The statement that colonists were exempt from taxes might suggest that Diodorus believed the colony to have been founded outside Italy. In his time, Sardinia was a province which did not enjoy tax exemption as was the case in the Italian peninsula (see also Salmon 1969, 119 who discusses the tax problems concerning the foundation of the colony of Junonia on the site of Carthage in Africa).

⁸⁶ For reasons which remain obscure, Bispham argues that the number of Diodorus illustrates that 300 was not a fixed number of settlers sent to maritime colonies. The maritime colony usually is believed to have been devised after the Latin War, except perhaps Ostia for which Livy does not provide a foundation date. Only Dionysius of Halicarnassus records colonies of that size in the early Roman period but these are not located on the coast.

⁸⁷ Polyb. 3.24.11- dated usually in 348.

outside Italy.⁸⁸ The fact that Livy does not mention this episode suggests that his description of colonial history for this period is incomplete. However, this need not necessarily falsify the information he gives about other colonial foundations of the period.

Diodorus is discussing a type of colonial enterprise about which Livy remains silent for some reason.⁸⁹ Therefore, the different sizes could be explained as the result of the specific nature of these overseas colonies; possibly too distant a location was less attractive to Roman settlers. More importantly, Livy's figures for this period do not really suggest that the numbers of colonial settlers were standardized. All transmitted numbers diverge from each other, even from those of the colonial settlements founded immediately after the Latin War. The number of 1,500 recorded for Labici is unique; quotas of 2,000 and 3,000 appear only after the Second Punic War. Of course, this does not prove Livy's information correct; the point being made here is merely that there are no explicit competing traditions or obvious late Republican inventions which undermine it.

The second anomalous figure comes from Dionysius who records that 20,000 colonists were sent to the colony of Venusia in 291.⁹⁰ This number is clearly at odds with Livy's tradition as he mentions 2,500, 4,000 and 6,000 as quotas for this period. Militating against the figure given by Dionysius is that it is excessively high. Therefore there is a general consensus that the number is corrupt, or perhaps describes a different reality.⁹¹ Torelli, for example, has argued that the high number is the result of the inclusion of the indigenous population in the census of the colony.⁹² Another possibility is that the high number refers to the entire colonial population, including women and children; the actual number of adult males in this reading would be approximately 6,000 (roughly 1/3 of the total population), a figure which tallies with Livy's figures.⁹³

Even if these attempts at reconciliation are repudiated, there is little reason to give more weight to the figure of Dionysius than to Livy's recordings. When dealing with population numbers, Dionysius is clearly much more an inventive antiquarian than Livy. Unlike Livy, he commences reporting quotas from the very beginning of the Roman colonization programme which allegedly began with Romulus. According to Dionysius' narrative, Romulus founded several colonies of 300 settlers in size (recorded for Caenina, Antemnae and Fidenae) in Latium.⁹⁴ Obviously, it is very unlikely that information of this kind was recorded in this mythical period, let alone that it survived

⁸⁸ Theophr. *Hist. pl* 5.8.1. See Torelli 1981; Torelli 1993, 110f. and recently Bispham 2006, 123 on these passages. See however, Amigues 1990 who argues that the interpretation that Romans founded a colony (πόλις) on Corsica is based on a mistaken editorial correction. The original manuscript states that the Romans set out to build ships (πλοῖον). She thinks that the settlement mentioned in the text is best interpreted as a 'ville-chantier'. See also Salmon 1969, 14 n. 7 who claims these reports must be errors.

⁸⁹ The example is not unique. Diodorus (19.100) also records the settlement of soldiers in the territories of Calatia & Nola in 312 and in that of Frusino in 306 (20.80). Livy does not mention colonial or viriatae settlements in these areas.

⁹⁰ Dion. Hal. *Ant. Rom.* 16/ 17.5.

⁹¹ Brunt 1971, 56. Attempts have been made to correct the figure to 2,000. For good discussions of this topic see Marchi and Sabbatini 1996, 19 and Marchi and Salvatore 1997, 9.

⁹² Torelli 1999, 94. See also Galsterer 1976, 55 for the view that Dionysius used the late Republican/ early Imperial population figure for Venusia and retrojected it to the early colonial period.

⁹³ For a discussion of the multiplier needed to arrive from colonist to total populations see below.

⁹⁴ Dion. Hal. *Ant. Rom.* 2.35; 2.53.

long enough to could have been consulted by later historians. This is nicely illustrated by a passage in Plutarch⁹⁵ which gives a very different number for the size of the colony of Fidenae (2500).⁹⁶ Both scholars most likely retrojected information from later periods (both numbers are recurrent in Livy's list) into this legendary past.⁹⁷ These examples worryingly illustrate the resourcefulness of some early imperial authors and the real danger of invented elements infiltrating the literary record.

2.3. *Compatible traditions*

Apart from these two 'competing' population numbers, most sources tie in very well with the Livian tradition. This is especially the case for the late third and second centuries for which several sources give settlers' quotas of the same order of size as Livy suggests (see Table 4). Information for the pre-Punic Wars period is much sparser. However, there is some indirect information provided by Polybius which supports Livy's tradition.

In his enumeration of the military strength of Rome and its allies at the time it was under threat from the Gauls of northern Italy in 225, Polybius states that the Latins had 80,000 foot and 5,000 cavalry available for service; this total figure is compatible with the number of male colonial settlers suggested by Livy's recordings. In total, Livy describes the foundation of twenty-one Latin colonies in the period between the Latin War and 225. The number of settlers is not always recorded, but since their number appears to have been standardized, it is possible to make a reasonable estimate of the total number of Latin colonists. Two slightly different approaches can be used for this purpose: either the number of colonists is extrapolated from the size of the territories, whereby the larger colonies are assigned 6,000 and the smaller 2,500 colonists,⁹⁸ or an average of 3,800 colonists is used.⁹⁹ Both methods result in a total of roughly 80,000 colonists. However, since it is likely that Polybius' number also included the population of the seven old Latin colonies which retained their independent status after the Latin War and as possibly the two old Latin cities of Praeneste and Tibur also did, the match is less strong than appears at first sight.¹⁰⁰ If only the seven old Latin colonies are added to Livy's list and the same mean of 3,800 colonists per colony is used, Livy's figures suggest a higher Latin population (circa 25 % higher).¹⁰¹

⁹⁵ Plut. *Rom.* 25. 1-3.

⁹⁶ On this see also Bradley 2006, 163 and Bayet 1938, 113. n 6. It is possible to combine the apparently contradictory figures of Dionysius and Plutarch by arguing that the first number refers to the settlement of a garrison in the towns, and the second to the actual number of settlers who received land in the confiscated territory. However, in the case of Caenina and Antemnae Dionysius clearly states that the land was allotted to the colonists who garrisoned the town (2.35). Also in 498, when half of the territory of Fidenae is recorded to have been divided again amongst Roman citizens, Dionysius (5.60) suggests that the land was allotted to those sent to the town as a garrison.

⁹⁷ The number of 300 settlers could have been conjectured based on the tradition that the organization of Romulean Rome was based on three tribes. Hence, each tribe would have sent out one *centuria* of *coloni*.

⁹⁸ Cornell 1995, 381.

⁹⁹ Brunt 1971, 56.

¹⁰⁰ Brunt even suggests that some Hernician and Volscian cities were included amongst the Latins by Polybius (Brunt 1971, 56).

¹⁰¹ The colonies are: Nepes, Sutrium, Ardea, Signia, Norba, Setia, Circeii.

This discrepancy can be explained in several ways. Brunt, for example, has proposed that the numbers mentioned by Polybius refer only to the *iuniores* (males between 17 and 45 years of age). To arrive at the total male population, the number has to be raised by 30 per cent. Brunt adds another 20 per cent to compensate for the probable under-registration of the allies and Latins ‘who were less zealous to provide accurate lists of their manpower, as they had to fight in wars not of their own choice’.¹⁰² In this fashion, a total male population of 134,000 Latins is reconstructed. This number agrees roughly with Livy’s figures if it is assumed that the old Latin, Hernician and Volscian cities were indeed included in Polybius’ list.¹⁰³ A somewhat different interpretation has been proposed by Bernardi.¹⁰⁴ He supposes that the numbers of colonial settlers reported by Livy also refer to *iuniores*. He goes on to argue that, at the time that the list of available manpower was compiled, the Latins already had 12,000 active troops (6,000 in the field and 6,000 in Rome). These must be added to the 85,000 Latin men still available for service at the time the inventory of 225 was drawn up. Bernardi thinks it is unlikely that Praeneste and Tibur or any of the Hernician and Volscian cities were included in the list; it recorded only the old Latin colonies. Since he believes that these had modest populations (an estimated 1,500 *iuniores*), the total which can be calculated on the basis of Livy’s figures (estimated at 90,000) tallies neatly with Polybius’ list (97,000) and even allows for modest population growth.

Not everyone agrees with these elegant attempts at reconciliation. De Ligt, for example, questions the hypothesis that Polybius’ figures refer to *iuniores*. He points out Brunt’s unequal treatment in his attempt to interpret the number presented for the Roman army strength and those for the Latins and allies.¹⁰⁵ In the first case, Brunt assumes that the number represents the total male population, while for the latter he believes the figure to represent *iuniores* only. De Ligt rightly questions whether such a distinction is valid and argues in favour of the interpretation that Polybius’ list contains all adult males available for service.¹⁰⁶ In the scenario he sketches, the difference between the number of Polybius and that of Livy is explained principally as the result of under-registration (estimated at 20 %).¹⁰⁷

Finally, Livy’s numbers can be lowered in an attempt to reconcile both data-sets. It is not clear if the numbers of colonists he mentions reflect the actual number of colonists who migrated to the newly conquered lands or whether they are best understood as the number of vacancies set by the

¹⁰² Brunt 1971, 57. See also Lo Cascio 1999, 168 on under registration among Latins.

¹⁰³ *Prisci Latini*: Tibur, Praeneste, Cora. Hernician cities: Aletrium, Verulae, Ferentinum. Volscian cities: Fabrateria Vetus and Aquinum. See, however, Bernardi 1973, 94 n. 164 who argues that Tibur and Praeneste were *socii* (based on Polybius 6.14, 8) while the Volscian and Hernician cities were *cives sine suffragio*. Sherwin-White 1976, 227-228, rejects this last view.

¹⁰⁴ Bernardi 1973, 93-95.

¹⁰⁵ De Ligt 2003, 7-8.

¹⁰⁶ For a recent critique of this position see Hin 2008.

¹⁰⁷ De Ligt 2003 see esp. n. 22. For the opposite position see Lo Cascio 1999, 168-169 who argues that all figures given by Polybius represent *iuniores* only. He goes on to claim that the number of Latins mentioned by Polybius reflects the *iuniores* of Latium Vetus and Latium Adiectum only, hence excluding many of the Latin colonies outside this territory. This last theory is very implausible (see De Ligt forthcoming).

Roman State. On several occasions, Livy describes how the Roman State had difficulties in finding enough volunteers to allow it to carry out its colonization programme, which could mean that fewer people migrated to these territories than had been originally planned. In other cases, some of the original colonists, perhaps even all of them, seem to have abandoned their colonies and returned to their original homes or to have moved on to other, more promising places. This option seems to have been taken by the colonists in the Roman colonies of Buxentum and Sipontum.¹⁰⁸ It is also possible that these colonies suffered from natural attrition which, especially in closed militaristic societies which the Latin colonies were, was usually high. Rathbone, for example, argued that in the case of Cosa continuous warfare throughout the third century caused a population decline of 30 per cent in the seventy-five years between the foundation of the colony and the end of the Second Punic War.¹⁰⁹

Although there is disagreement about the exact details of the different sets of population figures offered by Livy and Polybius, it is hard to escape the conclusion that they are roughly compatible and attribute a similar size to the Latin population. This in itself does not prove that their figures are correct; both could have been based on the same wrong presumptions or on different assumptions which led to similar conclusions.¹¹⁰ The main aspect of the apparent match is that it brings the information chronologically closer to the actual time of the events (Polybius was writing in the second century and possibly Fabius Pictor was his source).

For neither Latin colonies founded after 218 nor citizen colonies are there any alternative literary sources giving numbers of settlers which could either confirm or question Livy's tradition. Epigraphical evidence from Aquileia,¹¹¹ Cales,¹¹² and Puteoli¹¹³ supports Livy's claim that several colonies (or supplements) were founded in the second century; regrettably none records the number of settlers. Interestingly, the epigraphically attested supplement of Cales is not reported by Livy, perhaps

¹⁰⁸ On Buxentum and Sipontum see Livy (39.23). For other literary evidence concerning difficulties finding volunteers for colonies see Cassola 1988, 9-10. However, Cassola regards the references to recruitment difficulties in the earlier colonies unconvincing and possibly anachronistic. For the period after the Second Punic War in his view these accounts become more convincing since it was probably a time of demographic crisis.

¹⁰⁹ Rathbone 1981, 18-19. See also De Ligt 2003, 23-24 n. 22 who emphasizes the impact of the First Punic War on manpower. It is interesting that Rathbone's estimate of a 30% population decline is not derived from a noted discrepancy between the numbers of Livy and Polybius, but from the fact that in 197 a supplement of 1,000 colonists was sent to the area after complaints by the Cosan magistrates that they were no longer able to send the required number of troops to war (Livy 33.24). Rathbone suggests the population of Cosa decreased from 3,500 to 2,500 families in the course of the third century; consequently the supplementary 1,000 restored the original number of colonists in the area (=30%). The argument has been criticized in recent studies on demographic behaviour during the Roman Republic. The main bone of contention is that, in the long run, a high mortality rate among men of military age does not necessarily lead to a population decrease, since militaristic societies often develop specific (marriage) strategies to increase fertility (see Rosenstein 2004, esp. 252 n. 3 and De Ligt 2007).

¹¹⁰ Several scholars have questioned the validity of Polybius' list of available manpower. For example, Scheidel 2004, 4 argues that the 'extraordinarily smooth ratios that are built into his {Polybius'} account {...} casts serious doubt on the validity of *any* of the allied figures proffered by this text, and raises the possibility that this breakdown was constructed from the top down.' Scheidel does not discuss the possible congruency between Polybius figures and the estimates of the Latin population based on Livy's information. See Yntema 2008 for archaeological evidence which supports the figures of Polybius concerning the population of Salento. Further discussions on the reliability of Polybius' list see Hin 2009, 163-167 and De Ligt forthcoming.

¹¹¹ CIL I², 621.

¹¹² ILS, 45.

¹¹³ CIL X¹, 1781.

an indicator that the scale of the whole reinforcement programme was larger than Livy's narrative suggests.

2.4. *Who are the adscripti?*

We have seen that according to Livy a substantial number of people could sign up for colonization, varying in the case of Latin colonies between 2,500 and 6,000 souls. But who are these people? Livy offers only a few and often controversial clues about their sex and socio-economic backgrounds.¹¹⁴ Perhaps the most informative are the numbers he gives for the Latin colonies founded after the Second Punic War. For these colonies Livy makes a distinction between the number of *pedites* and *equites* who enrolled.¹¹⁵ The fact that he uses military categories to describe the colonists seems to suggest that they were adult males who had served in the Roman army.¹¹⁶ This understanding of Livy's figures is supported by the fact that this division in ranks mirrors exactly the terminology used for distributions of money to veterans in this period.¹¹⁷ Moreover, the practice of rewarding veterans with land is clearly attested to for the years 201-199, when the veterans of Scipio received 2 *iugera* of land in Samnium and Apulia per year of service.¹¹⁸

In contrast, the beneficiaries of citizen colonies and supplements to Latin colonies in this period are described in more neutral terms, namely as *homines*, *adscripti*, *cives Romani* or as *familiae*. On the basis of this consistent difference, Erdkamp argues that the different terminology was used to describe distinct social realities. While veterans might have been the prime beneficiaries of Latin land distribution programs, the *proletarii* were the most likely candidates for land in citizen colonies and supplements.¹¹⁹ Given the fact that Livy on several occasions clarifies that his figures refer to complete families,¹²⁰ it seems safe to assume that as a general rule the colonial allotments were distributed per family and that only heads of (potential) families were counted as *adscripti*.

This terminological argument, however, does not apply to the colonial situation before the Second Punic War and we cannot simply assume that the situation in the 2nd century aptly describes the procedures of earlier periods in Roman colonial history.¹²¹ As I shall argue later in this book, there is evidence to suggest that the nature of the Roman colonization program changed in the course of the

¹¹⁴ The ethnic background of colonists and the question whether indigenous people could join the colony is discussed in Chapter 5.

¹¹⁵ In the case of Aquileia also centurions are mentioned (cf. Table 2).

¹¹⁶ Erdkamp forthcoming. See, however, Galsterer 1976 who explains these classes as reflecting the need to create property classes in the new community.

¹¹⁷ Erdkamp forthcoming; for the list see Brunt 1971, 394.

¹¹⁸ See Table 6 for references.

¹¹⁹ This view is supported by the different sizes of allotments distributed in Latin and citizen colonies; the former are up to 10 times larger than the latter (cf. Table 13). Although the thesis of Erdkamp is convincing, there are exceptions to his proposed scenario. For example, in the case of the Latin colony of Carteia founded in the second century it is clear that the beneficiaries were not veterans, but bastard sons of Roman soldiers who had stayed behind (Livy 43.3). Also, Erdkamp uses the example of Cosa to demonstrate the military character of Latin colonies (i.e. that the colonial town was organised as a military camp). However, based on the chronology of the excavated city plan Fentress (2000) connects this settlement with the supplement which was sent to Cosa in 197 and not with the first generation of colonists (sent there in 273). According to Erdkamp's model the supplement should have consisted mainly of proletarians.

¹²⁰ See Table 2.

¹²¹ The earliest reference to *pedites* as beneficiaries of colonial allotments dates to 218 (see Table 4).

third and second centuries. Therefore, we need to investigate the evidence diachronically. Regrettably, Livy is very vague about who qualified for colonization in the period before the Punic Wars. When Livy describes the foundation of colonies of this period (Latin and citizen colonies alike), he consistently refers to the people sent there as *homines*, or earlier as *cives Romani*, or *coloni ab Urbe*. The consistent absence of military terminology in this period may not have been coincidental and there is good reason to believe that Livy assumed that the recipients of land in these early colonizations programs were predominately impoverished plebeians. Livy on several occasions mentions explicitly that the founding of colonies was closely connected with social tensions in Rome and that, besides having a military function, the purpose of colonization was also to improve the living conditions of the restless and potentially dangerous plebs.¹²²

This plebeian motive, however, is rejected by various scholars as it recalls the socio-economic situation of the Gracchan and late Republican periods.¹²³ More importantly, it seems to conflict with the strategic function colonies had in this period which was to defend Rome's expanding borders. This strategic objective was surely best served by restricting enlistment in a colony to adult males with some military experience.¹²⁴ Support for this position can be found in other sources like Diodorus and Dionysius who on occasion explicitly mention that veterans were the beneficiaries of colonial land division programs also in the pre-Punic War period (although none of these references refer to Latin colonies founded after the Latin War).¹²⁵ The issue about whether colonists were veterans or proletarians is difficult to resolve on the basis of the available and seemingly contradictory literary evidence, but perhaps a sensible standpoint is that of Gabba who maintains that the sources are not necessarily incompatible and that we may assume that colonists were recruited from both the lower social strata and from the propertied classes, predominately the younger sons of *assidui* who had few prospects at home.¹²⁶

¹²² Patterson 2006, with further references for a good discussion of the evidence. In support of the Livian traditions, Oakley and Cornell have pointed out the rise in social tension in the early and mid-Republic in periods during which no colonies were founded (Oakley 1993, 18-22; Cornell 1989b, 323-4; Cornell 1995, 330-333 and 393-394). Also compatible with this tradition is the Letter of Philip V of Macedonia to the Larissaeans in which he wrote that 'the Romans, who, when they free slaves, admit them to citizenship and grant them a share in their magistracies, and in this manner, they have not only increased the size of their own country, but have also been able to send colonies to nearly 70 places' (SIG 543, translation Lomas 1996, 47). Although it is not stated explicitly, this controversial text (on this see Section 1.3) seems to suggest that freedmen signed up for colonization. Also some fragile archaeological evidence mainly from colonial cultic contexts may suggest a Plebeian ideology (Torelli 1999, 78; see also Bispham 2006, 104 for a similar plebeian outlook attested in temple B in the forum of Cosa).

¹²³ Càssola 1988; Erdkamp forthcoming.

¹²⁴ Although it seems reasonable to assume that the military function of colonies were best served by sending military experienced persons to these remote places, I am less convinced that this necessarily contradicts with the plebeian motive. There is reason to believe that at some point during the fifth or early fourth century Plebeians also served in the army (for a good discussion see Momigliano 2005, who, however, argues that the plebeians before that time were excluded from service).

¹²⁵ Diodorus (19.101) and Dion. Hal. *Ant. Rom.* (4.63,1). See also Frontin (4.3.12) for an early reference to soldiers as the beneficiaries of land in the land division of Dentatus (contradicted by Plin. *NH* 18.18 and Val. Max. 4.3.5). According to Càssola early colonization was often connected with a form of private warfare organized by influential individuals and fought on a voluntary base. In such a situation land was considered a form of booty which was distributed amongst the men who conquered the land by the generals (see Càssola 1988, 17. See also Galsterer 1976, 49-51 and Bradley 2006, 168-169 for more evidence in favour of this argument; in general on the influence of clans during the Roman Republican, Terrenato 2007).

¹²⁶ Gabba 1988, 20.

Despite the disagreement about the socio-economic background of colonial settlers, all scholars so far seem to agree that the *adscripti* were exclusively adult males.¹²⁷ But, usually few arguments are provided to back up this view. Probably this is the result of the fact that it seems evident that only males would have been allowed to register for dangerous colonial adventures, considering also the socio-political organisation of Roman militaristic society in which as a general rule only adult males counted in legal or political issues.¹²⁸ Although I subscribe to this reading, it seems justified to provide some additional arguments for this position, since it implies rather high migration rates and colonial population densities (cf. Section 2.3).

Probably the strongest evidence for the view that the *adscripti* before the Punic Wars were adult males comes from the earlier discussed list of Italian manpower resources in 225 provided by Polybius.¹²⁹ The fact that his figures for Latins able to wear arms is roughly compatible with the total number of colonists that can be deduced from Livy's numbers suggests that the *adscripti* were predominately adult males. Some fragile confirmation of this reading can be found in Appian, who recalls that 2,000 men from Alba Fucens came to help Rome in defending her gates against the Carthaginian army.¹³⁰ According to Livy Alba Fucens counted 6,000 colonists; if these were predominately adult males this implies that a sensible 30% of the male population left their homes to help Rome. On the other hand, if we would assume that the 6,000 *adscripti* recorded by Livy also included females and children, this would imply that all adult men from Alba went to Rome. Such a scenario is unreasonable. With the enemy so close by, surely a substantial number of soldiers needed to stay behind to defend the hometown.¹³¹ Considering this evidence, it is difficult not to conclude that according to the literary tradition the people enlisting for colonization were adult males.

Whether the *adscripti* were veterans or urban plebs, and at what age they embarked on the colonial adventure and if they brought a family with them cannot be established convincingly on the basis of the available evidence. Hence, it is difficult to estimate what the total size of the colonial populations was. Usually a multiplier of 3.17 is used to calculate whole populations from adult males in the Roman world.¹³² However, especially during the first pioneering years of their existence,

¹²⁷ The list is endless. To name just a few: Brunt 1971, Bernardi 1973, Cornell 1995.

¹²⁸ For a recent nuancing view see Hin 2008 who draws attention to the fact that women *sui iuris* did exist during the Roman Republic.

¹²⁹ Section 2.2.3.

¹³⁰ App. *Ha.* 39.

¹³¹ It seems that Livy 29.15 also points in this direction. In this passage Livy recalls the punishment of the 12 colonies which had stopped to provide troops during the 2nd Punic War. As a retribution for this indulgence, each of those colonies had to supply a contingent of infantry twice as numerous as the largest they had raised since the Carthaginians appeared in Italy, and 120 cavalry in addition. Regrettably Livy does not inform us about the number of infantry they usually had to supply, but a very fragile indication is given by the mentioning of 120 cavalry. The ratio between *pedites* and *equites* in colonies is usually between 1:10 and 1:16. This means that if the colonies had to raise a similar percentage of their infantry as they were required for their cavalry, that would suggest around 1200 and 1920 *pedites*. Also Livy 5.30 could be used to support the reading of Livy's *coloni* as adult males. Livy recalls in this passage the exceptional decree that in the case of land distribution in the territory of Veii also children were allowed a piece of land. Livy explicitly states that this was an abnormal situation. However, the passage is generally considered corrupt as it recalls Gracchan rhetoric's (compare for example with App. *BCiv* 7-11).

¹³² On this see Scheidel 2000, 21-24 with references. The multiplier is based on the level 3 of the Coale and Demeny standard population model (with a life expectancy of 25 years and 0% population growth).

colonial populations are unlikely to have had a demographic structure that followed that of a general standard population. For example, one might expect that especially young men had the courage to sign up for joining a dangerous colonial adventure. Men aged in-between 17 and 45 usually comprise 43.5 % of all males.¹³³ To account also for men below age 17 and above age 45, and for women, we need to use a multiplier of 4.6 to approach the hypothetical total population of a colony. The abnormal starting age structure of the colonial society should in theory, result in higher total populations than if we would assume that also older men were included amongst the *adscripti*.

On the other hand, there are a number of factors which seriously counterbalance this positive age effect, and it seems unrealistic to assume that all the enlisted colonists were actually successful in raising a reproducing family of two surviving children. For example, one could easily imagine that mortality rates were higher than usual under those unstable pioneering circumstances, and also that it was more difficult to find suitable brides in these remote areas, or that one married later than usual (thus restraining fertility). The most important factor which probably impeded 'normal' demographic development, however, is emigration. The sources make it perfectly clear that colonies suffered strongly from emigration.¹³⁴ Besides first generation colonists who abandoned their colonial farms, it is likely that younger sons of colonists especially, often left the colony and looked for new and more promising opportunities in the city of Rome or in other, newly founded colonies.¹³⁵

The impact of all these different factors seems to me impossible to quantify on the basis of the available information. But considering the good deal of literary evidence reporting that colonies had difficulties in maintaining population levels and that as a consequence they were unable to contribute the expected number of troops to Rome, I expect that, at least for the middle and long term a multiplier of 4.6 is far too high. Therefore, also considering that we have no concrete evidence suggesting that the *coloni* were indeed all *iuniores*, I shall apply in the rest of this book a multiplier of 3.5 for calculating whole populations, which implies that either a substantial number of older men were included amongst the *adscripti*, or, in the case we assume they were *iuniores* only, that they were not all able to raise reproducing families of two surviving children. The last scenario finds some fragile support in the already discussed difference between the Latin colonial population size which result from Livy's list and the manpower resources recorded by Polybius, which, depending of once reading of these numbers, are about 20-25% lower.¹³⁶

¹³³ Cf. Hin 2008, 199.

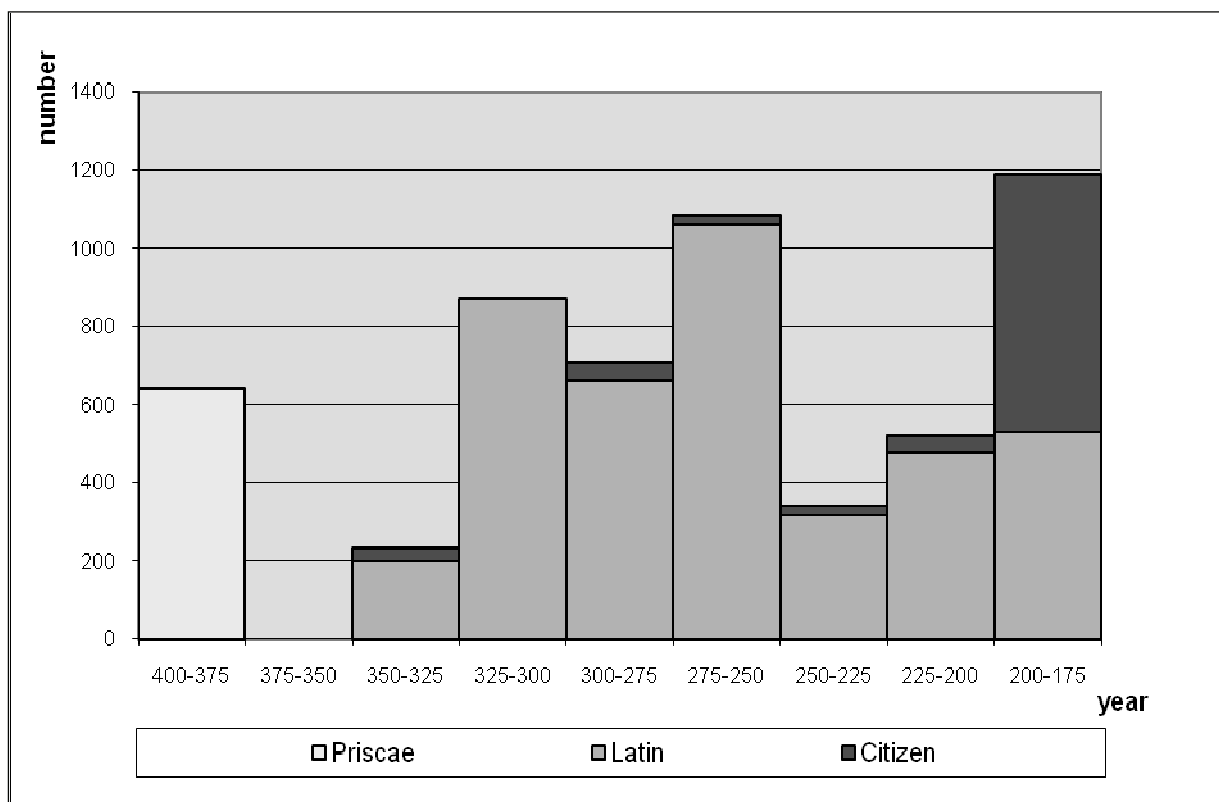
¹³⁴ On this see Broadhead 2007 and 2008; Erdkamp 2008 and forthcoming. Although Broadhead argues that there were juridical restrictions on emigration from colonies (in order to guarantee stable manpower resources), his studies demonstrate clearly that these laws often were not respected and that colonies suffered from depopulation.

¹³⁵ Erdkamp forthcoming.

¹³⁶ Cf. Section 2.2.3. Using a very different strategy Rathbone 1981, also concludes that Latin colonies had lost c. 30% of their original population.

2.5. Livy's numbers and Roman manpower

If Livy's numbers are indeed interpreted as adult males this implies that by 225 a total of between 80,000 and 100,000 adult male colonists had migrated to Latin colonies; that is roughly an average of 800 adult males every year (see Graph 1). Cornell protests that such a drain on the Roman population is highly unlikely to have occurred as it could not be compensated by natural growth and hence would imply a heavy loss of Roman military power.¹³⁷ He thinks that this does not imply that Livy's figures are corrupt, but instead that a substantial percentage of the settlers came from the allied communities. The inclusion of allies in colonial enterprises is indeed recorded in the sources, foremost however, those relating to colonial enterprises of the second century. In the case of the earlier colonies, on various occasions Livy explicitly states that the colonists were Roman citizens (see Table 2). If this assertion is indeed true, does this necessarily lead to the conclusion that Livy's numbers are incredibly high? The whole issue, of course, depends on the size of the total Roman population; another hotly debated subject.



Graph 1: Migration per annum as implied by the literary sources (total per 25 year/ period).

¹³⁷ Cornell 1995, 367. Latin migrants forfeited their Roman citizenship and therefore could no longer serve in the Roman legions. They were required to send troops, but these fought with the other allies.

Literary information about the size of the Roman population comes from the census figures reported by Livy; figures whose value is heavily disputed. For the late Republican period, the debate tends to revolve around what precisely these numbers stand for;¹³⁸ whereas the discussion for the pre- Punic Wars period concentrates more heavily on the question of whether the transmitted figures are genuine. Most scholars agree that the early census figures are probably annalistic inventions.¹³⁹ Their most important objection is that the size of the Roman territory probably could not have sustained the size of population suggested by the literary sources. The first to point this problem out was Beloch.¹⁴⁰ He thought that the size and productivity of the Roman territory in the early Republican period could have sustained a population no larger than 20,000 to 25,000 persons. Others have raised this number slightly (ranging between 35,000 and 50,000), but all estimates are considerably lower than that suggested by the census figures.¹⁴¹

For the mid-Republican period the most influential estimates of the Roman population are without doubt those made by Afzelius.¹⁴² In principle, his calculations are based on an estimated population density per sq. km of Roman territory, which he deduces mainly from Polybius' list for 225. Since the list gives the manpower per region of Italy, it is possible to work out regional population densities. Afzelius goes a step farther and breaks these larger regional estimates down into units of the size of city-states or tribes, principally by using comparative evidence from the early twentieth century on infra-regional differences in population densities. This strategy produces the following population estimates:

¹³⁸ E.g. Hin 2009; De Ligt forthcoming.

¹³⁹ Esp. Brunt 1971, 27; Beloch 1926, 216-224. A small minority maintains that they are perfectly plausible. This position has been fervently advocated by Ward see (Ward 1990 with further references) He argues that early Republican census figures (those recorded before the Veian War) make perfect sense since they are consistent with other data from the early Roman period such as the size of the Roman ruling class, the size of the city of Rome and Roman territorial expansion.

Fundamental to his argument is the view that the early Republican census figures, in contrast to later periods, did not count only males, but the whole population. Ward's thesis has found little support among Roman demographers and has been dismissed as the unsuccessful attempt of a philologist to rescue the classical tradition (Scheidel 2001, 7 n. 30 and 52 n. 207).

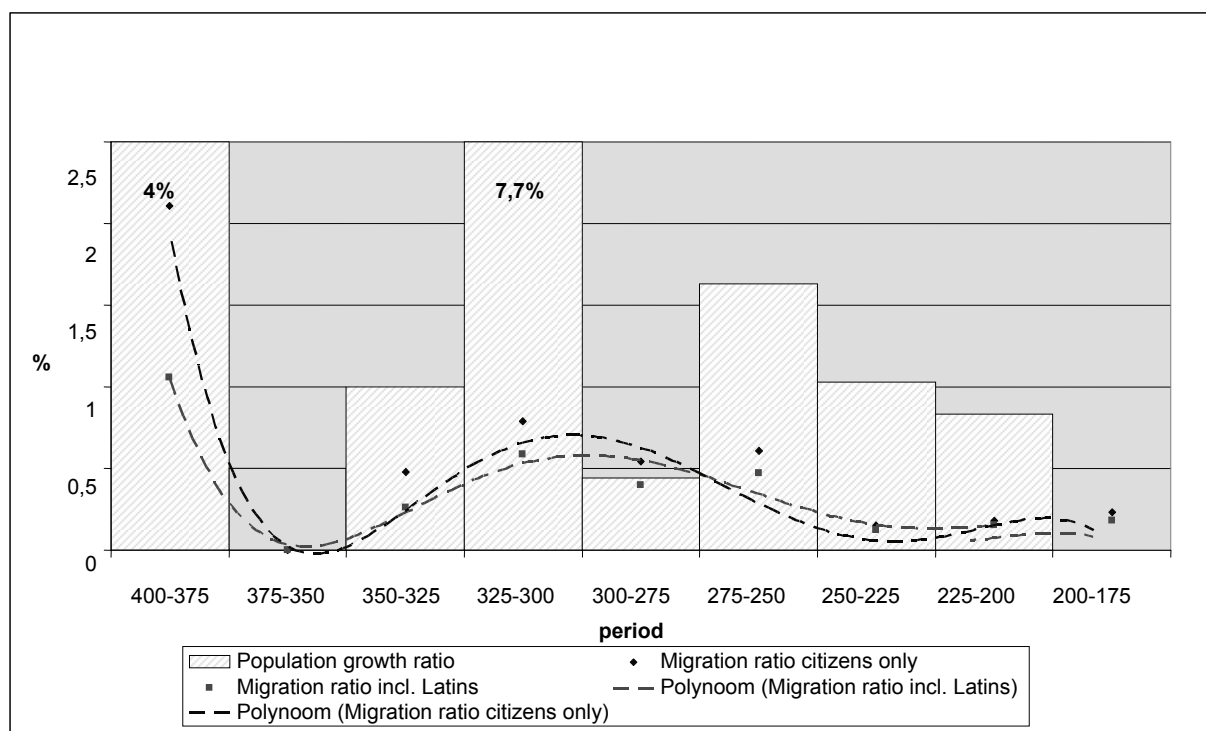
¹⁴⁰ Beloch 1886; Beloch 1926, 209; See Scheidel 2001 for a good recent discussion of Beloch's method and its responses.

¹⁴¹ According to Cornell 1995, 205-206, other evidence such as the probable size of the centuriate army and comparative evidence from neighbouring Etruscan cities tallies best with an estimated population of 35,000.

¹⁴² Afzelius 1942; accepted by most scholars (e.g. Cornell 1995; Scheidel 2006; De Ligt forthcoming; all with minor modifications).

Table 5: Population estimates up to 290 by Afzelius 1942	
346 (p. 140-141)	338 (p. 153)
<u>Population size:</u> <i>Romans</i> Ager Romanus: 2005 kmq= 126400 persons <i>Latins</i> Latin League: 2005 kmq= 96600 persons Sutium and Nepet: 330 kmq= 11880	<u>Population size:</u> <i>Romans</i> Ager Romanus: 5525 kmq= 347300 <i>Latins</i> Latini and other independent free communities in Latium: 2980 kmq= 137100
304 (p. 169-170)	290 (p.181)
<u>Population size:</u> <i>Romans</i> Ager Romanus 6285 kmq= 405000 <i>Latins</i> Old Latins: 1805 kmq= 82900 New Latin colonies: Cales: 100 kmq= 3600 Fregellae: 305 kmq= 14700 Luceria: 790 kmq= 28400 Saticula: 195 kmq= 7000 Interamna, Suessa, Pontia: 455 kmq= 21900 Sora: 230 kmq= 11100	<u>Population size:</u> <i>Romans</i> Ager Romanus: 15295 kmq= 568400 persons <i>Latins</i> Latins up to 304: territory 3880 kmq= 169600 persons New Latin colonies: Alba Fucens and Carseoli: 705 kmq= 25400 Narnia: 185 kmq= 6700 Venusia: 800 kmq= 28800 persons Hadria: 380 kmq= 13700

This approach in which the Italian population numbers are reconstructed is far from ideal as it is based on several problematic assumptions.¹⁴³ Nevertheless, at the moment it is the best there is and the majority of scholars (including Cornell) agree that it gives a rough idea of the size the Roman population in this period. If these speculative estimates (which are considerably lower than what the literary sources imply) are accepted, the following colonial migration rates can be modelled:



Graph 2: Annual migration ratio ($M / P \cdot 100$. M is Cornell 1995, 381 (based on Livy); P = Scheidel 2005, 6 table 1 (based on Afzelius 1942).

The average annual migration for the pre-Punic Wars period of in-between 0.4 and 0.8 per cent of the total population is rather high compared to evidence for other periods and regions. Indeed it is so high that it is unlikely to have been compensated by *natural* growth (usually set at 0.2 to 0.3%)¹⁴⁴ but this does not necessarily imply a loss of Roman manpower as Cornell has suggested. There are several reasons to back up this assertion. The first is that the graph clearly shows that there is a relationship between Latin colonial migration rates and overall Roman population growth (mainly the effect of the enfranchisement of conquered territories and peoples). Since colonial migration rates are considerably lower than the estimated population growth ratio, this finding suggests that, despite the large-scale colonization programmes, the Roman military potential could have increased significantly after 338.¹⁴⁵ Interestingly, the phases of intensified migration also correspond to periods of relatively low military

¹⁴³ Especially the reliability of Polybius 2. 24, fundamental to Afzelius' estimate, has been questioned. See Scheidel 2004, 4, but see De Ligt forthcoming for a defence of the credibility of this source.

¹⁴⁴ Scheidel 2003; also Osborne 2004, 164. The theoretical maximum is usually put at 2.3%, with an average life expectancy of 25 (Hin 2009, 157).

¹⁴⁵ Manumission of slaves is also likely to have contributed in restoring the annual growth rate.

mobilization rates.¹⁴⁶ The second finding relates to the issue that possible loss of manpower depends strongly on the question of who were actually sent to these colonies. If, as Cornell argues, settlers were predominantly recruited from the lower social strata who generally did not serve in the army, colonization need not have diminished Roman manpower resources. In such a scenario, the immediate military impact would have been considerably lower and easily compensated by the troops colonies had to deliver to Rome in periods of war.¹⁴⁷

The migration rates modelled for the pre-Latin War period (2-2.5 % and a little more than 1 % if Latins could join) although constantly below population growth rates, are extremely high. However, it is unclear if all colonial foundations recorded for this period must be considered new, autonomous Latin communities. Especially colonies founded on territory attached to the *ager Romanus*, such as Labici and Satricum which do not appear in Livy's list of old Latin colonies, might be better interpreted as areas of viriatae settlement or *coloniae civium Romanorum*.¹⁴⁸ If this postulation holds true, the foundation of these colonies had no direct effect on Roman military manpower. For the other early colonies such as Circeii, Setia, Nepes and Sutrium, for which Latin origin and status is more likely, information about the number of Romans colonists who joined the scheme is absent. Possibly the majority of these colonists was recruited among Latins or from newly enfranchised groups.

2.6. Areas of viriatae settlement

The sources record several laws which regulated the viriatae distributions of land in the period between 393 and 173 (see Table 6). Unlike the Latin and citizen colonization programmes, no source mentions the number of people who received land under this scheme. Livy often suggests that viriatae colonization was open to all plebeians or, in later times, all Roman citizens.¹⁴⁹ The absence of fixed quotas of settlers in the sources might not be a coincidence, but could have been an outcome of the fact that occupation of these lands was indeed open for all who wanted to take up the challenge.

¹⁴⁶ According to Scheidel 2006, 220, fig. 6 in the late fourth and first half of the third century mobilization rates drop from 23 to 10 % of the Roman citizenry aged 17+.

¹⁴⁷ For this discussion see Section 2.2.4.

¹⁴⁸ Cornell 1995, 302; See also Oakley 1997, 343 who notes that the *triumviri* were all Roman (also Bradley 2006, 167).

¹⁴⁹ The clearest case is Veii, about which Livy informs us that all plebeians and not only the heads of families but also all the children received an allotment so 'that men might be willing to bring up children in the hope that they would receive their share' (Livy 5.30). In case of the Ager Gallicus, Livy even states that each Roman citizen received an allotment of 10 *iugera* (Livy 42.4).

393	Ager Veientanus divided amongst the plebeians including children (Livy 5. 30)
390	Land in Ager Veientanus assigned to new citizens (Livy 6.4)
387	Ager Pomptinus divided among the plebeians (Livy 6.21)
338	Ager Latinus, Privernas and Falernus divided amongst the plebeians (Livy 8.11)
312	Q. Fabius allotted land to his soldiers in the confiscated territories of Calatia and Nola (Diod. Sic. 19.100)
306	One-third of the land was confiscated from Frusino which Diod. says was distributed to colonists (Diod. Sic. 20.80)
290	Land conquered by Dentatus was distributed to plebeians according to Pliny (<i>NH</i> 18.18). Other traditions describe the recipients more generically (Vir. Ill. 33; Val. Max. 4.3.5. give <i>populus</i>) or veterans (Front. Str. 4.3.12). According to Columella (1. <i>praef.</i> 14) and Frontinus, the land was located in Sabinum.
232	The Ager Gallicus was divided among Roman citizens, some sources also include Picenum in the division programme (e.g. Polyb. 2.21; Cic. <i>Ad Brut.</i> 14.57)
201	Ager publicus in Samnite and Apulian territory divided amongst veterans who had fought with Scipio in Spain or Africa (Livy 31.4).
173	Viritalis land division in the Ager Ligustinus and Ager Gallicus. Romans received 10 <i>iugera</i> of land, Latin allies 3 <i>iugera</i> (Livy 42.4).

Table 6: Areas of viritalis settlement

Viritalis land division programmes are believed to have been large-scale enterprises which involved large numbers of people.¹⁵⁰ This impression is based on the considerable size of the territories put up for distribution and the relatively small allotments individuals received (2-7 *iugera*). More precise estimates cannot be made on the basis of these two criteria alone. Not only are there problems concerning the exact size of the territories (and the percentage under cultivation), but it is generally agreed that only part of the land was actually distributed and therefore considerable tracts remained *ager publicus*.¹⁵¹ Moreover, the very small allotments (2-7 *iugera*) recorded as having been distributed to colonists cannot be taken as a clue to the population density in the area (which consequently would have been in the order of in between 57 to 200 colonists per sq km.). Such tiny allotments, if authentic, were obviously too small to sustain a family and an unknown amount of additional land must have been available in the neighbourhood which settlers could use to supplement their income.

A possible clue to the more precise number of viritalis colonists is provided by the creation of new *tribus*. Taylor has demonstrated convincingly that there is a strong correlation between areas of land distribution schemes and those of new tribes (Table 8). This fact, she proposes, strongly suggests that tribes were created primarily for these viritalis settlers.¹⁵² The logical consequence is that the numbers of people who were initially enrolled in a tribe, more or less reflect the number of viritalis colonists who migrated to the area. Working on this assumption, Oakley has recently estimated that between 338 and 299 a total of 18,000 adult males were involved in viritalis settlement schemes.¹⁵³ In his calculation, Oakley assumes that some 3,000 adult male Roman settlers were enrolled in every new tribe, which results on average in a density of more than twenty colonists per sq km (see table below

¹⁵⁰ Cf. Cornell 1989a, 403 estimates that in the late fourth and early third century between 20,000 and 30,000 Romans were settled in viritalis schemes. Estimates of the number of settlers who migrated to the Ager Veientanus vary considerably, but all suggest numbers in the thousands (see Roselaar 2010, 299 n. 3 with references).

¹⁵¹ E.g. Cornell 1989b, 326.

¹⁵² Taylor 1960, 66-67.

¹⁵³ Oakley 2005, 663-665.

for the estimated sizes of these tribes); that is, about 25-50 per cent higher than is estimated for the average Latin colony of the period (see below).

On which data or arguments the estimate of 3,000 settlers per tribe is based is obscure. One may suspect that it is derived by dividing the total Roman population by the number of tribes. A figure in that order of size is indeed the result if the estimated Roman population of the late fourth century made by Afzelius is taken and divided by the number of tribes founded up to that time.¹⁵⁴ However, Afzelius states that about half the people who inhabited the *ager Romanus* in that period were *cives sine suffragio*, who were not enrolled in tribes.¹⁵⁵ When adjusted to accommodate this factor, Afzelius' population estimates produce a result of fewer than 1,800 adult males per tribe.¹⁵⁶ This figure is little more than what is suggested by the only figure transmitted in the literary sources. Several sources report that when the tribus Claudia was founded for newly enfranchised Sabines in 504, 5,000 persons were enrolled, a sum which, if taken to include females and children, corresponds to about 1,500 adult males.¹⁵⁷

A problem with all calculations based on an average number of adult male citizens per tribe is that they assume that all tribes were of the same size. Any calculation has to reckon with the fact that the different sizes of the territories covered by tribes suggest that this might not have been the case.¹⁵⁸ The territories of the twenty-one old tribes especially are much smaller than those founded after the conquest of Veii. On average, the territories of old rural tribes are thought to have measured approximately 66 sq. km,¹⁵⁹ whereas several of those founded later cover territories larger than 200 sq. km (see Table). The rub is that, even if we accept these territorial reconstructions to be indicative of differences in the number of people enrolled in these tribes, this is still not evidence to support the view that on average 3,000 people enrolled in these new tribes. On average, only a few more than

¹⁵⁴ E.g. the *Ager Romanus* in 338 according to Afzelius 1942, 153 (accepted by Cornell 1995, 35) could sustain a population of 347,300 souls, divided by the 29 tribes founded up to 332 results in 3,629 adult males.

¹⁵⁵ Afzelius 1942, 153. The population estimates of Afzelius' are roughly compatible with census tallies for this period if it is assumed that they represent all citizens with voting rights. For 340: 165,000 and 160,000; for 334-323: 130,000, 150,000 and 250,000 are transmitted. The transmitted 250,000 is clearly at odds with Afzelius' estimates. See for a discussion of the (un)reliability of these early census tallies the discussion above.

¹⁵⁶ The 29 tribus of 332 each had an average population of 5,650 persons (1,765 adult males) The Falerna tribe was only founded in 318. It is assumed here that the 10,900 citizens who Afzelius claims populated this territory were still members of their old tribe.

¹⁵⁷ Although the figure of 5,000 is transmitted in several sources, there is some confusion about who was counted. According to Livy 2.16 and Dion. Hal. *Ant. Rom.* 5.40, they were adult males; Plut. *Pobl.* 21 suggest 5,000 is the total number of Sabines. The figure is accepted as authentic by several scholars e.g. Hantos 1983, 59. Such a result also fits rather well with *tribus* estimates for this Early Roman period based on census tallies of c. 2,000 adult males (on this see Ward 1990, 32, Table 6). However, these figures are seriously challenged by the arguments of Beloch (on this see Section 2.4 in this Chapter) and probably are best seen as anachronistic retrojections (in itself a possible clue to the size of tribes in later times). If indeed as Cornell 1995, 205-206 suggests, the Roman territory in this period could not sustain a population of more than 35,000 persons, the average *tribus* could not have contained many more than 500 adult males. Some support for this view is found in an obscure passage of Livy (4.46) which tells us that in 418 troops were raised from ten *tribus* selected by lot; from these the *iuniores* were enrolled. Since in that period the maximum mobilization appears to have been 6,000, each tribe sent a average of 600 *iuniores* (Cornell 1995, 192-193).

¹⁵⁸ From an administrative point of view (tribes were essential units for census, voting and from the third century also for the levy), it makes sense that some uniformity was aspired to (Broadhead 2008, 457-458). On the other hand, it is known that in the second century some tribes grew much more rapidly than the others (e.g. the Pollia).

¹⁵⁹ The size can be deduced from Afzelius' estimate that before the Latin War the *Ager Romanus* measured 2,005 sq. km (Afzelius 1942, 140), minus the 610 sq. km of the *Ager Veientanus* is 1395 sq km of old *Ager Romanus* divided among 21 tribes (66 sq. km per tribe). Ward 1990, 32 (Table 6) estimates smaller average rural tribes (54 sq. km).

2,000 adult males per new tribe result from Afzelius' statistics, which might be on the high side as Afzelius' calculations presuppose that territories were populated from their foundation as densely as they were at the time of the Gallic War of 225.¹⁶⁰ There is a strong possibility that in earlier periods the land was cultivated less intensively and that the colonists reclaimed ever larger areas as time passed.

At this moment we might conclude that there is little support for the view that 3,000 males on average participated in virginal colonization programmes of the late fourth century. According to the widely accepted demographic reconstruction produced by Afzelius, tribe populations were considerably smaller on average. Of course, his population estimates can be challenged (see discussion above), but it is difficult to improve on his method. In any case, on the basis of the information available at present, the tribes founded in the fourth century probably had slightly more than 2,000 adult males on average. This results in population densities comparable to those estimated for contemporary Latin colonies (10-15 adult males per sq km, on this see below).

Table 7: The sizes of Roman tribes according to Afzelius 1942				
Tribe	Estimated area in sq. Km	Estimated population density per sq. Km	Population per tribe	
4 tribes of the ager Veientanus	610	48.2	7,351	2,297
Pomptina & Poblilia	392	48.2	9,447	2,952
Maecia & Scaptia	200	48.2	4,820	1,506
Falerna	225	48.4	10,900	3,406
Oufentina	120	48.2	5,784	1,806
Aniensis	200	28.9	5,780	1,806
Teretina	70	48.2	3,374	1,054
For size territories see: Veii: Afzelius 1942, 68 (but see Beloch 1926, 620 who estimates 562, accepted by Cornell 1995, 310). Pomptina and Poblilia: Afzelius 1942, 95 (also Beloch 1926, 620, but see Bozza 1939, 166). Maecia: Afzelius 1942, 96. Maecia and Scapta: (Beloch 1926 map II) Falerna: Afzelius 1942, 153, but see Beloch 1926, 620 who estimates 198 sq. km). Oufentina: Afzelius 1942, 93. Anienis (Beloch 1926 map II). Teretina (Afzelius 1942, 94), but see Beloch 1926, map II who estimates c. 100 sq. km. According to Taylor 1960, 57-59 Beloch and Afzelius place the tribe wrongly in the territory of Frusino. She argues for localization in the coastal territory between Liris and Volturnus (a territory of almost 300 sq. km.)				

¹⁶⁰ On this see Section 2.5 in this chapter.

Table 8: Viritate distribution programmes and the creation of new tribes

Viritate distribution		Tribe			
Year B.C.	Place	Date	Tribe	Location (Ross Taylor)	Created for
393	Ager Veientanus	387	Stellatina,	Capena	New citizens and Roman settlers
			Tromentina,	Veii	
			Sabatina,	Lacus Sabatinus	
			Arnesis	Forum Clodi	
383	Ager Pomptinus	358	Pomptina	Suessa Pometia/ Ulubrae	-
None recorded, but Hernicians were defeated 358, which could have been followed with land confiscation and assignation		358	Poblilia	Northern part of Hernician territory. Extended in 306 with Anagnia	-
339	Ager Latinus	332	Maecia	Lanuvium	New citizens and Roman settlers.
		332	Scaptia	Velitrae	New citizens and Roman settlers
339	Ager Falernus	318	Falerna	Ager Falernus	-
339	Privernum	318	Oufentina	Privernum	-
None recorded, but Aequi were defeated in 304-302 which could have been followed with land confiscation and assignation		299	Aniensis	Anio valley	-
None recorded, but Aurunci were defeated in 314 which could have been followed by land confiscation and assignation		299	Teretina	Auruncian territory, coastal area from Liris to Voltturnus	-
312	Calatia & Nola		Falerna	Extention of Falerna tribe	
303	Frusino		Oufentina	Extention of Qufentina tribe	
290	Sabinum	241	Quirina	Sabine/ Vestinian territory. Reate	Roman settlers and new citizens
Not explicitly recorded, possibly part of the land division programme of Dentatus		241	Velina	Ager Praetuttianus	Roman settlers and new citizens
232	Ager Gallicus and Picenum		enrolled in the Pollia.		
201	Samnium and Apulia			Unclear	Veterans
199	Ager publicus	-	Unclear	Unclear	Veterans
173	Ager Ligustinus et Gallicus		enrolled in the Pollia.		Romans and Latins

2.7. Summarizing

In this section, I have discussed some of the more concrete objections which have been raised to the reliability of Livy's colonial population figures. The argument that other literary sources give very different colonial population numbers was the problem tackled first. It appears that almost all available text-based demographic information is consistent with what Livy records. Only for the pre-Latin War period does a clear alternative tradition exist: that of the Sardinian colony reported by Diodorus. This colonial event is not described by Livy and if Diodorus' account is accepted as reliable, the smaller number of colonists might be attributable to its specific character (overseas colonization) to which fewer people were sent. The only competing figure for the mid-Republican period recorded by Dionysius, that for Venusia, can be reconciled with Livy's tradition by assuming that he included people generally left out of Livy's numbers (women and children or natives). Even if these attempts at reconciliation are rejected, the excessively high number and Dionysius' dubious reputation for reporting population figures, hardly challenge Livy's recordings seriously. Furthermore, I demonstrated that Livy's figures are not incompatible with other information in the literary sources on Roman manpower resources. This by no means proves Livy's tradition right, but it undermines some of the recent objections which have been raised against his reliability on this issue. This is relevant to the discussion in Section 4 which deals with the compatibility between the text-based demographic estimates and the archaeological data-set. Before such a comparison can be made, first Livy's figures have to be translated into rural population densities.

3. Translating Livy's figures into rural population densities

3.1. Population density

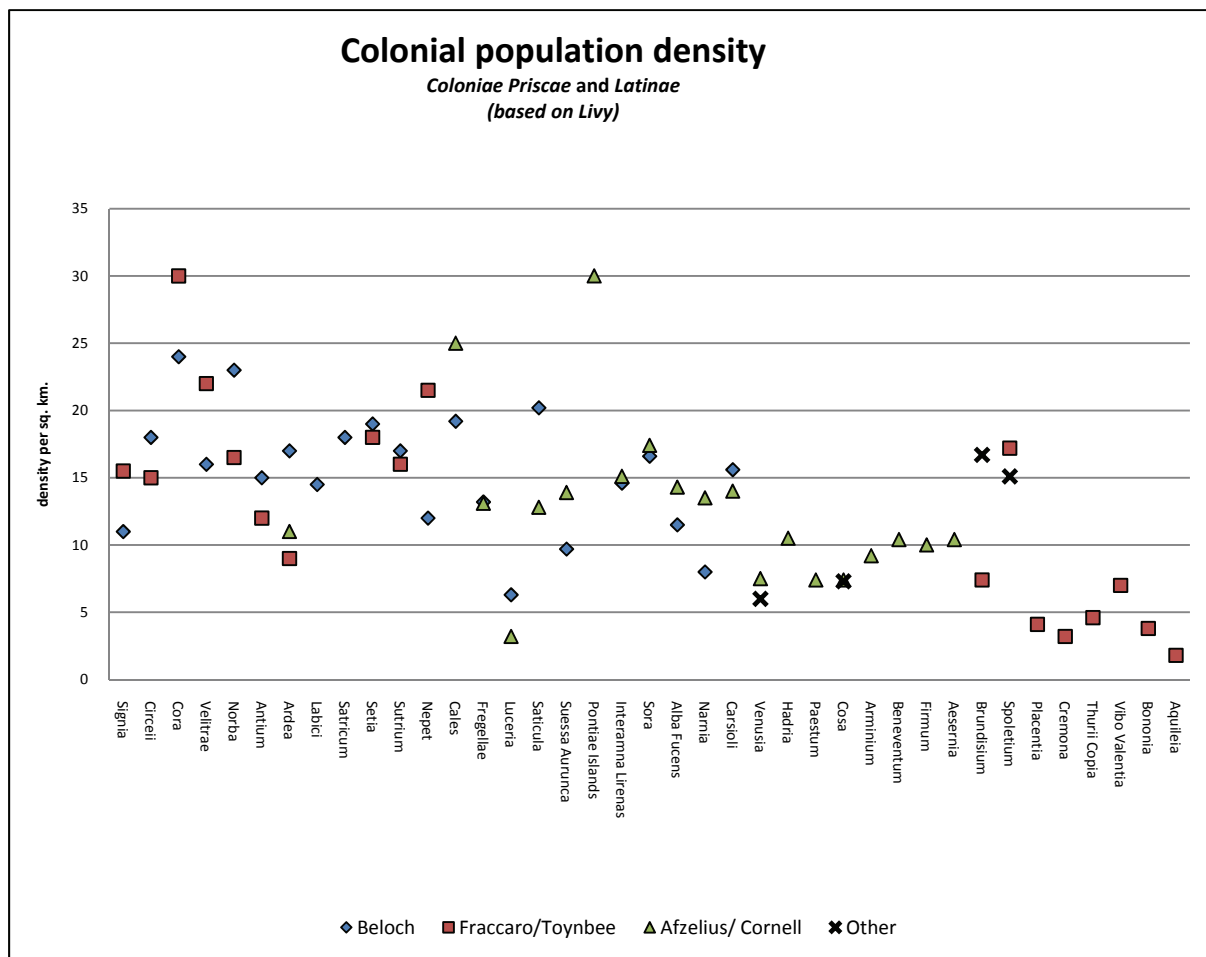
In order to translate Livy's colonial population figures into population densities, a territorial variable is required. Although no specific information on the spatial dimensions of colonial territories exists in the literary sources, various scholars have attempted to make quite detailed territorial reconstructions of Italy during the Republic, differentiating clearly between Roman territory and that of colonies and allies. Fundamental in this regard are the studies of Beloch, Afzelius, Fraccaro and Toynbee,¹⁶¹ who have used epigraphic and literary information (mostly not contemporary), medieval maps, probable natural barriers and traces of centuriation in their construction of geo-political maps of Italy during the Republic which are, with minor modifications, accepted by most scholars of Republican history.¹⁶² On

¹⁶¹ Beloch 1926, 620; Afzelius 1942 and Fraccaro 1935; Fraccaro 1956-1957; Toynbee 1965a Map 2 which is based largely on the works of the three previous cited scholars (see Toynbee 1965a, 595-597 for notes on his map).

¹⁶² E.g. Brunt 1971, 54; Cornell 1995, 381; Scheidel 2006, 214. Recently also some attempts have been made to delimit colonial territories using Thiessen polygons (e.g. for the Pontine colonies Bouma and Van 't Lindenhout 1996-1997. For Nepes and Sutrium: Di Gennaro, et al. 2002; Di Gennaro, et al. 2008).

the basis of these reconstructions, Livy's figures for Latin colonies result in the following colonial population densities:¹⁶³

Coloniae Priscae and *Latinae*



Graph 3: Density of colonists per sq. km. (*Coloniae Priscae* and *Latinae*).

¹⁶³ I have used the following calculation strategy: D (density) = P (number of colonists) / T (territory). For colonists numbers (P), I have used Livy's figures (see Table 2 for figures). For colonies for which no information has been transmitted, I used the average number of colonists (e.g. 3833). For colonies founded before 338 for which Livy does not provided colonial population numbers, I have used the average of his other figures (e.g. 2166). For the territorial parameter I used the studies of Beloch 1926, 620; Cornell 1995, 381 (which is based on Afzelius), and Toynbee 1965a, Map 2.

Interestingly, the majority of the computations result in rather high, but not impossible population densities. If we accept a multiplier of 3.5 to calculate whole populations from Livy's figures (interpreted as adult males),¹⁶⁴ this results in total population densities of on average c. 50 persons per sq. km for the fifth and fourth centuries and densities in-between 35 and 10 persons per sq. km for the third and second centuries. This is below those recorded for these areas in the late nineteenth century (Graph 5), and perhaps more importantly, comparable to those calculated for the free population living on Roman territory in this period.¹⁶⁵

The calculated densities also result in plausible amounts of land available per colonist. According to a convincing analysis of both ancient and more recent data of Foxhall, a farmer's family with a pair of oxen can cultivate a maximum of 3-5 hectares of land in a year.¹⁶⁶ Reckoning with some additional land left fallow in a crop rotation system, allotments one and a half times that size are sensible maxima. Indeed, the information to be found about colonial allotment sizes suggest that settlers seldom received larger allotments (Table 13). The minimum needed to sustain a family is usually put at 1.5 hectare.¹⁶⁷

For the fifth and fourth centuries almost all calculated population densities fall within the range set in these studies. If we adopt a conservative estimate of 50% arable territory which is the roughly the figure calculated for the whole of Italy (thus including the substantial mountainous areas),¹⁶⁸ this results in allotments which are just above subsistence level (Graph 4, on average about 3.5 hectares per colonist). This is comparable to what the sources for this period suggest (eg. allotments of half that size are said to have been distributed in various viriatae colonization programmes).¹⁶⁹

These figures seem to imply that strong population growth could hardly be achieved in these territories. However, since the sources suggest that colonial territories suffered strongly from depopulation during the Republican period, this is not necessarily a problem.¹⁷⁰ Moreover, recent studies have convincingly argued that population levels in central Italy during the mid-Republican

¹⁶⁴ On this section 2.2.4.

¹⁶⁵ Afzelius 1942, 128-134: for Latium on average 50 persons per sq. km, but about 100 persons per sq. km in the fertile Campanian plain; Brunt 1971, 54 arrives at 36 persons per sq km for the whole *ager Romanus*, but he also arrives at a lower estimate for the Latin territories. Population density estimates for the whole of Italy during the Early Empire vary considerably depending on the high or low count interpretation of the census figures. The figure calculated for the colonies correspond best with high count estimates for Italy (c. 56 free persons according to Lo Cascio 1999). However, as De Ligt 2010 has convincingly argued, the lower densities which result from a low count scenario are mainly the result of low population densities in the north of Italy. Even in a low count scenario population densities in central Italy are very high. See also Witcher 2008, 282-288 on population densities in the Roman *suburbium* during the Early Empire which are considerably higher than those calculated for the colonial territories. The colonial population densities are also comparable to those recorded for medieval Italy: 34 per sq. km in 1340, but 85 in Tuscany (Lo Cascio 1999, 169). For other comparative data see Jongman 1988, 67-76 and Blanton 2004, 214-215 who arrives at very high population densities for the Classical world.

¹⁶⁶ Foxhall 2003.

¹⁶⁷ On the minimum amount of land needed for a household see for example Salmon 1969, 72 n. 110, Galsterer 1976, 47 with further references.

¹⁶⁸ Cf. Jongman 1988, 76.

¹⁶⁹ See Table 13.

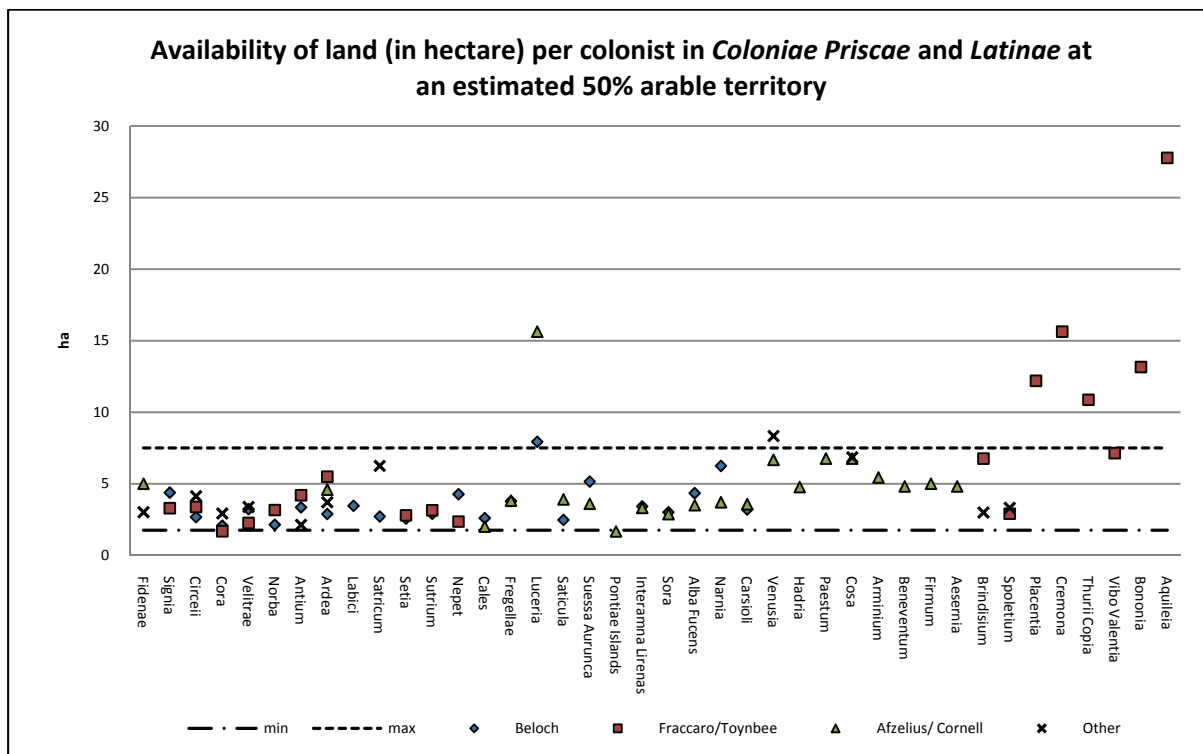
¹⁷⁰ Cf. Section 2.2.4.

period were close to the maximum carrying capacity of the area.¹⁷¹ Nevertheless, since it is likely that colonial territories on average contained a higher percentage of arable land than the Italian average, the scenario sketched in Graph 4 may be too pessimistic. If we would use a more optimistic arable percentage of 70%, about 5 hectare of land per colonist would be available. If we also take into account that Livy's *coloni* probably did not all had reproducing families of at least two children,¹⁷² this amount of available land is more than adequate. In such a scenario there would be room for population growth or the presence of a moderate indigenous population living within the reconstructed colonial borders. For the late third and early second centuries this was certainly a possibility. Even if we adopt the conservative estimate of 50% arable land, the potential amount of land per colonist systematically exceed that which could have been worked intensively by a single nuclear family. This trend is also discernible in the literary sources which describe the handing out of allotments of up to 50 *iugera* (Table 13 for references).¹⁷³

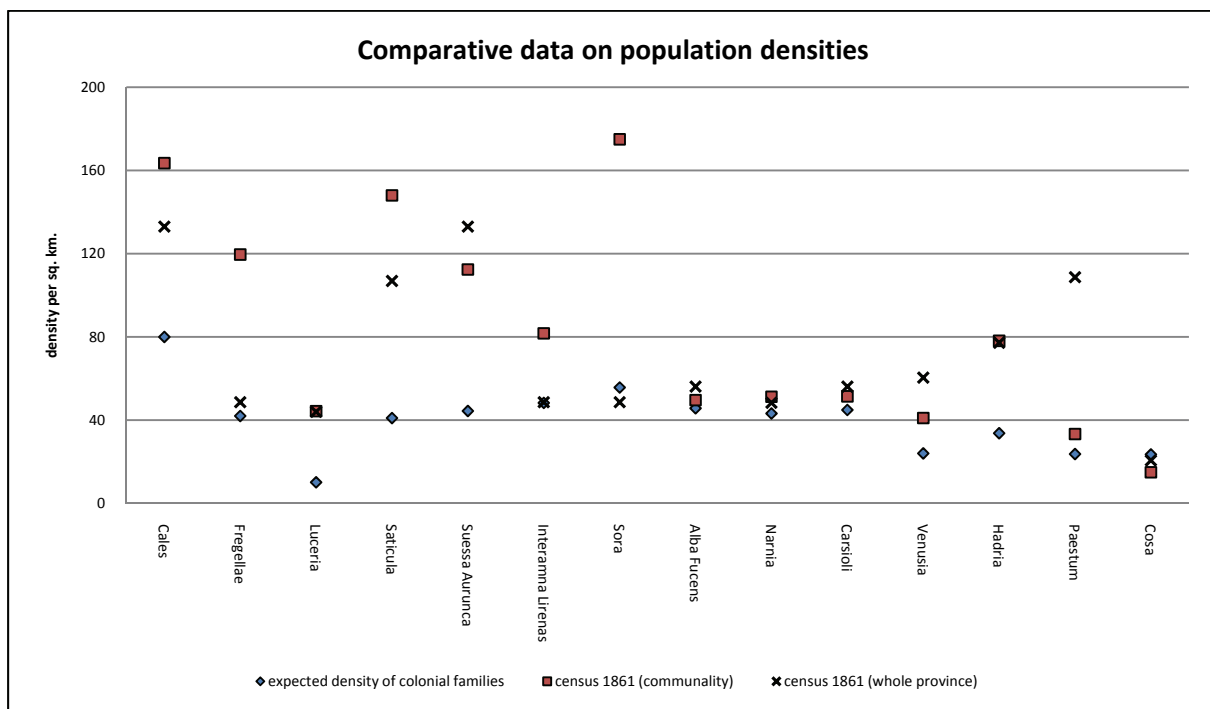
¹⁷¹ Lo Cascio 1999, 169; De Ligt 2010 for a demographic reconstruction of central Italy during the mid-Republican period.

¹⁷² See Section 2.2.4.

¹⁷³ This, of course, cannot be used as an argument for the reliability of either one of these data-sets. There is a risk that historical information of allotment sizes and colonial populations has influenced territorial reconstructions. Nonetheless, the relationship is not absolute. Population estimates of, for example, Afzelius 1942 which are based on his territorial reconstructions are often very different from what Livy suggests about colonial population numbers or what can be inferred from allotment sizes (see esp. his estimates of Cales and Luceria).

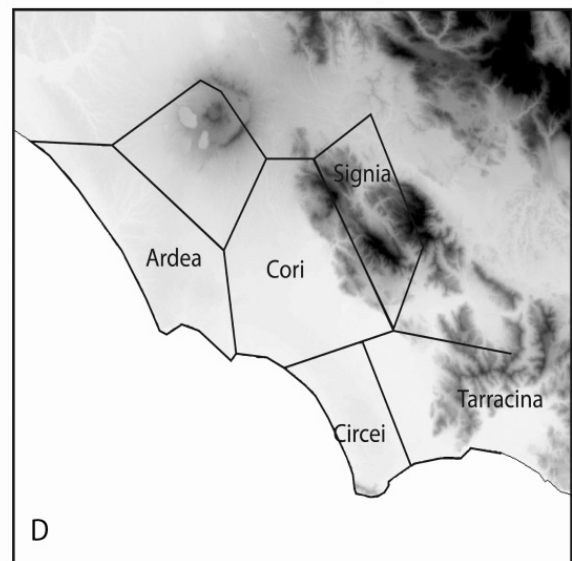
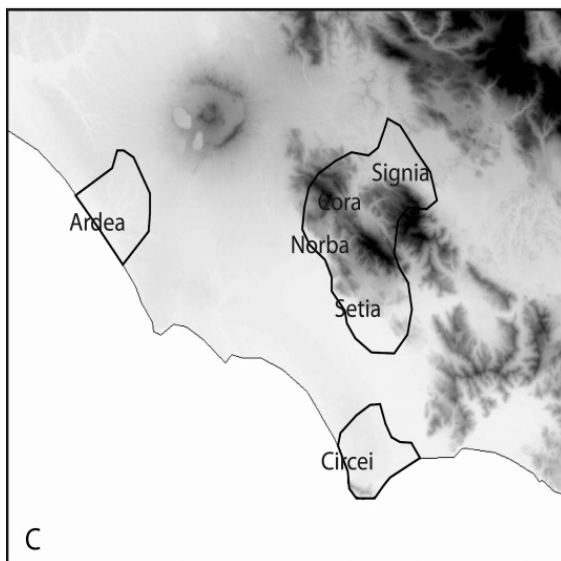
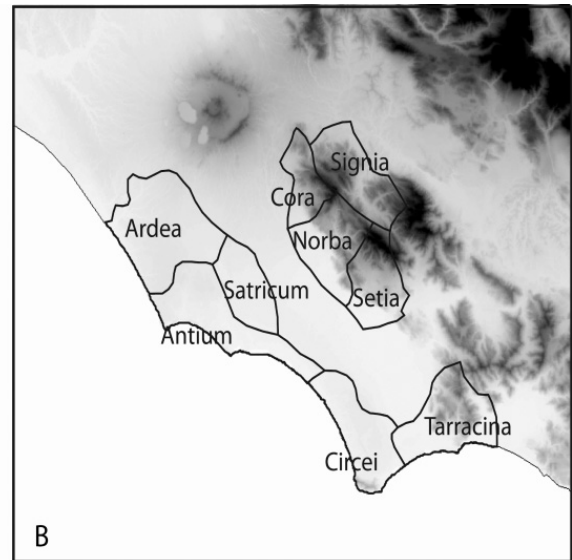
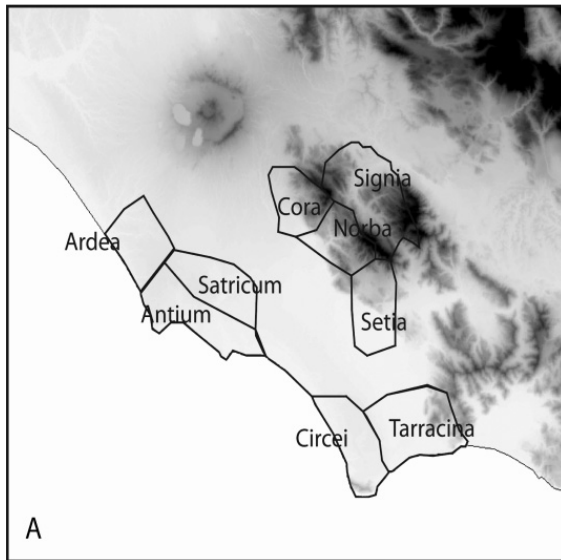


Graph 4: Availability of land per colonist in *Coloniae Priscae* and *Latinae* (upper dotted line = maximum amount of land a family can cultivate; lower dotted line = minimum amount of land to sustain a family).



Graph 5: Comparative data on population densities (number of persons per sq. km.).

Fig. 5: Reconstructions of colonial territories in Latium. (A = Beloch; B = Toynbee; C = Cornell; D = Bouma and Lindenhout)



Before drawing the conclusion that these statistics strengthen the credibility of Livy's figures, it is important to examine the data used in the calculations more closely. The parameters used to establish the availability of land per colonist, namely the size of colonial territories and the percentage of arable land, are not based on hard evidence, but are guesstimates which indubitably contain considerable margins of error. In the case of the sizes of colonial territories, this is demonstrated clearly by the fact that more often than not scholars disagree about their precise size and shape (Fig. 5). This is not surprising considering the weak evidential base of these territorial reconstructions which consists of very little more than anachronistic data shored up by plenty of guesswork.¹⁷⁴

Nevertheless, it is still remarkable that, although there are considerable differences in the reconstructions of colonial territories, almost all are compatible with Livy's figures and result in population densities which remain within the thresholds for minimum and maximum amounts of land per colonist (excluding the colonies of the third and second centuries which will be discussed below).¹⁷⁵ This is significant only if there is certainty that the territorial reconstructions themselves have not been inadvertently steered by the literary information on colonial population sizes. In a couple of cases this supposition can be safely excluded. For example, in the cases of the colonies in the Agro Pontino and those founded in South Etruria territorial boundaries have been reconstructed using so-called 'Thiessen polygons' which use only the distance between polities as a criterion for defining territories (occasionally the size of cities is also included as a variable in these reconstructions).¹⁷⁶

The methodology used by Beloch, Afzelius and Toynbee is less clear-cut and their demographic reconstructions are often based on a variety of elements which are not always clearly revealed (for example, distance between settlements, natural features, epigraphical evidence and medieval maps). In these studies, it is more difficult to exclude the possibility that demographic information has influenced their territorial reconstructions. However, the fact that the population densities calculated which result from these studies vary notably (from 30 to less than 5 per sq km) suggests at least that demographic information has not been the principal source of information on which the territorial reconstructions have been based. Most likely, in these studies the distance between polities was also the most important factor; especially in establishing where the territorial boundaries ran exactly other information such as the medieval maps, natural barriers and suchlike was used.

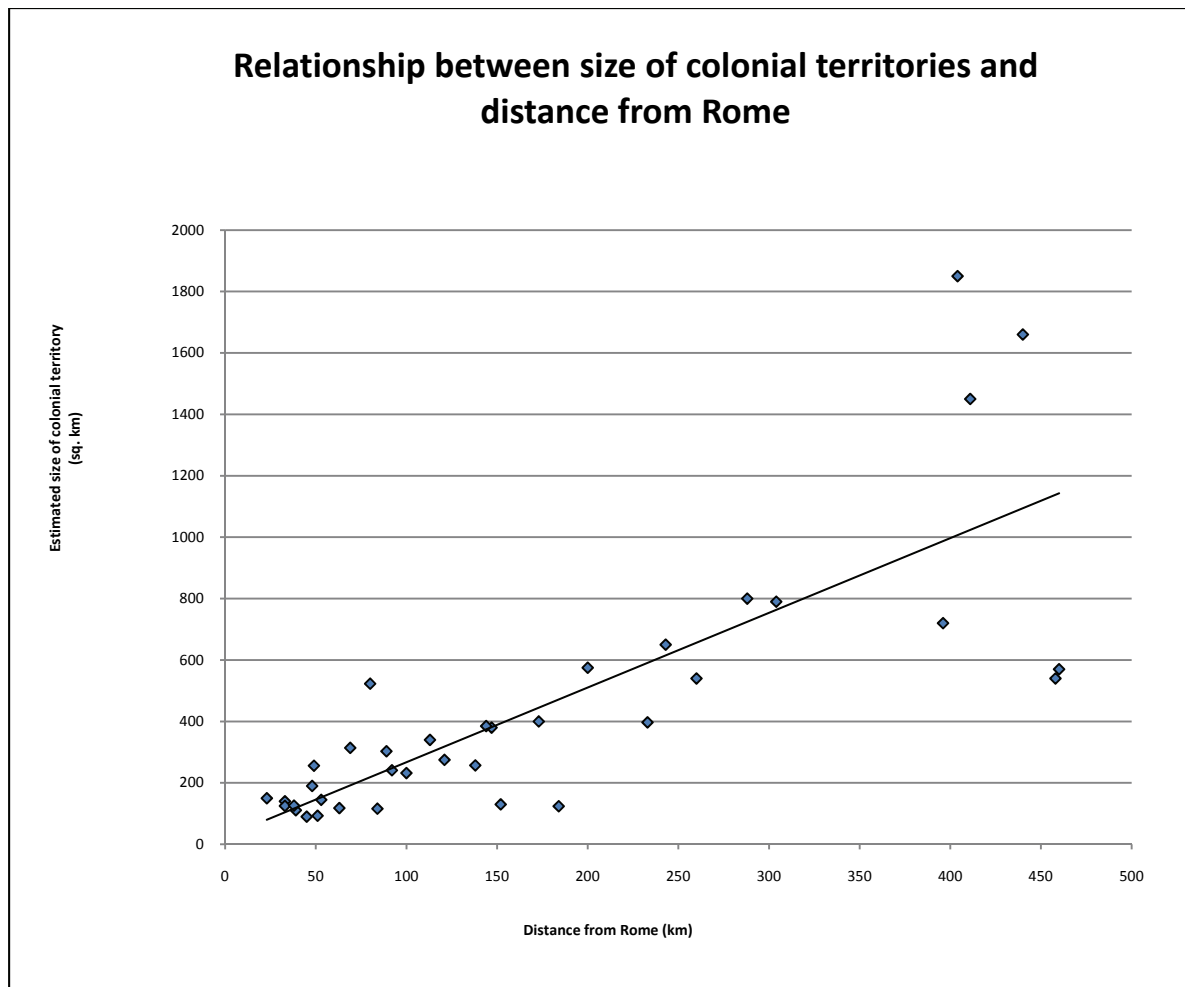
¹⁷⁴ The fact that during the municipalization of Italy in the first century the old territorial organization was significantly altered and that various rural areas were assigned to towns demonstrates that the late-Republican situation cannot simply be retrojected to the mid-Republican period, e.g. Beneventum whose territory increased considerably in the Late Republic (on this see Patterson 1988, 140-143).

¹⁷⁵ For example, according to the territorial allocation proposed by Beloch, all early colonial territories measured between 100 and 200 sq km. The vast majority falls in the category 100 to 150 sq km and only the territories of Signia and Nepesin measured between 150 and 200 sq km. Other scholars (e.g. Afzelius 1942; Attema, et al. 2009, 49-fig. 5.0. who use different techniques) have proposed rather different territorial reconstructions. Although these alternative maps affect the size and morphology of individual colonial territories, they do not change the overall conclusion that most territories were between 100 and 200 sq km.

¹⁷⁶ Bouma and Van 't Lindenhou 1996-1997, 94; Di Gennaro, et al. 2002; Di Gennaro, et al. 2008.

As a general rule, territorial reconstructions which are based chiefly on inter-site distances are more likely to overestimate the sizes of territories than the other way around. Such approximations are the outcome of the fact that the scholars who construct them work with information on the location of known communities and try to establish where the likely boundary between polities lay. A crucial factor which can never be dismissed is the possibility that some ancient community either is not mentioned in the literary sources or has not been detected by archaeological studies (which would reduce the size of the territories of the neighbouring communities). Another drawback in this methodology is that it does not allow for the possibility there were considerable areas between settlements resembling transitional zones or no-man's lands which were not formally assigned to either one of the neighbouring communities.

It is likely that the impact of this factor increases the farther the colony is situated from Rome. The literary sources (still the prime source used for geo-political reconstructions) provide much more detailed information about the topography of ancient Latium, Etruria and Campania, than they do about the Po Valley, the Apennines and the inland areas of southern Italy. The distances between known polities in such regions are consequently considerably larger. The possible impact of this bias is demonstrated in Graph 6, which shows that there is a clear correlation between distance from Rome and the size of colonial territories reconstructed.



Graph 6: Relationship between the size of colonial territories and distance from Rome.

To some extent, this bias could explain the trend visible in Graph 3 which indicates a decline in colonial population density over time (in general the later colonies are founded farther away from Rome). Nevertheless, there is information in the literary sources which suggest that the trend towards bigger territories is at least partially authentic. First, Livy's information on the sizes of colonial allotments distributed shows that allotment sizes increased notably over time and in the second century were sometimes larger than an area which could have been worked intensively by a single nuclear family (Table 13 for references). If this information is genuine, it suggests that colonists either did not farm all the land they could intensively or that other people worked these fields.¹⁷⁷

¹⁷⁷ For the early colonial period, still dominated by the threat posed by the indigenous populations, the latter option looks unrealistic. Much of the land in the Po Valley probably had to be reclaimed and drained. It therefore needed heavy investment before it could be farmed intensively. Therefore it is likely that, at least initially, a considerable proportion of the colonial lands were exploited only extensively, possibly for animal husbandry as has been suggested for Aquileia (Bandelli 1983-1984).

Livy also seems to suggest that large tracts of conquered land remained undivided and were either kept for future distribution or assigned to the indigenous population.¹⁷⁸ In the case of Thurii, Livy explicitly states that a third of the confiscated land was set aside for future distribution.¹⁷⁹ There is no explicit literary information which suggests that over time more land was left undivided (which would explain the trend of the increasing size of colonial territories), but it is reasonable to assume that, especially after the Second Punic War, Rome acquired more land than it could distribute among available colonists and tracts of land were reserved for other purposes such as future distribution programmes.¹⁸⁰

Coloniae Civium Romanorum

Puzzlingly low population densities are also obtained for citizen colonies (Graph 7).¹⁸¹ Citizen colonies founded in the second century have about the same colonial population densities as the Latin colonies founded in that period but the sources record large differences in the size of holdings distributed (Table 13). The holdings of Roman colonists fluctuate between 5 and 10 *iugera* (1.25-2.5 ha), hence 5 to 10 times smaller than what is suggested by the calculation in Graph 8. The fact that the allotments distributed teeter on the edge or are even below subsistence level suggests that in Roman colonies additional (arable) land was available for colonists. However, the likely availability of additional lands cannot be the sole explanation of the low densities. There is also reason to believe that many of these colonized territories were considerably smaller than they were after the municipalization process (attributable to the same processes discussed above for the Latin colonies).¹⁸²

The literary tradition suggests that the ‘maritime colonies’ had very small populations which also possessed little land as private property. Nevertheless, it is often believed that their territories were fairly extensive, comparable in size to those of the Latin city-states. On Beloch’s map, for example, Minturnae and Sinuessa are given territories of little less than 100 sq km, while Terracina and Antium have territories between 150 and 200 sq km. On Toynbee’s map the territories of Minturnae and Sinuessa are smaller, between 50 and 60 sq km, while those of Terracina and Antium, although shaped differently, are in the same order of magnitude. More recent studies generally avoid the step of making territorial estimates for these communities and

¹⁷⁸ See, however, Chapter 5 for the view that these undivided lands were not assigned to the colony, but remained property of Rome.

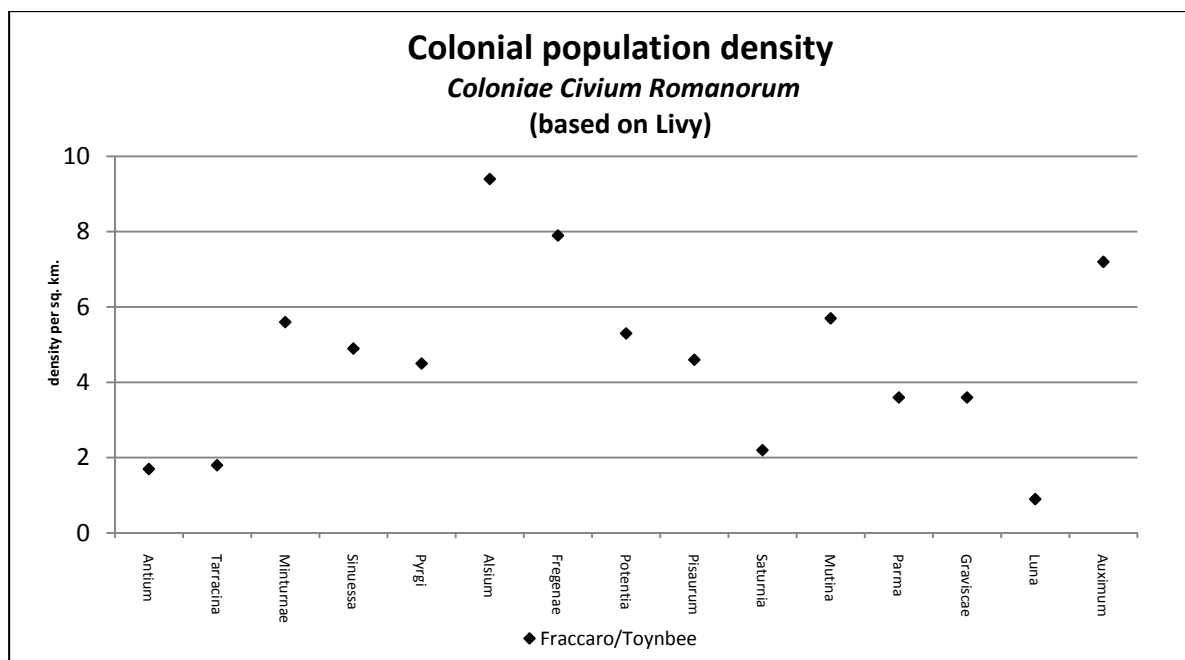
¹⁷⁹ Livy 35.9.

¹⁸⁰ This is in fact recorded for the territory of Vulci. After the conquest, a part of the confiscated territory was used to found the colony of Cosa. However, enough land remained unoccupied so that Rome later could found the colonies of Saturnia and Heba.

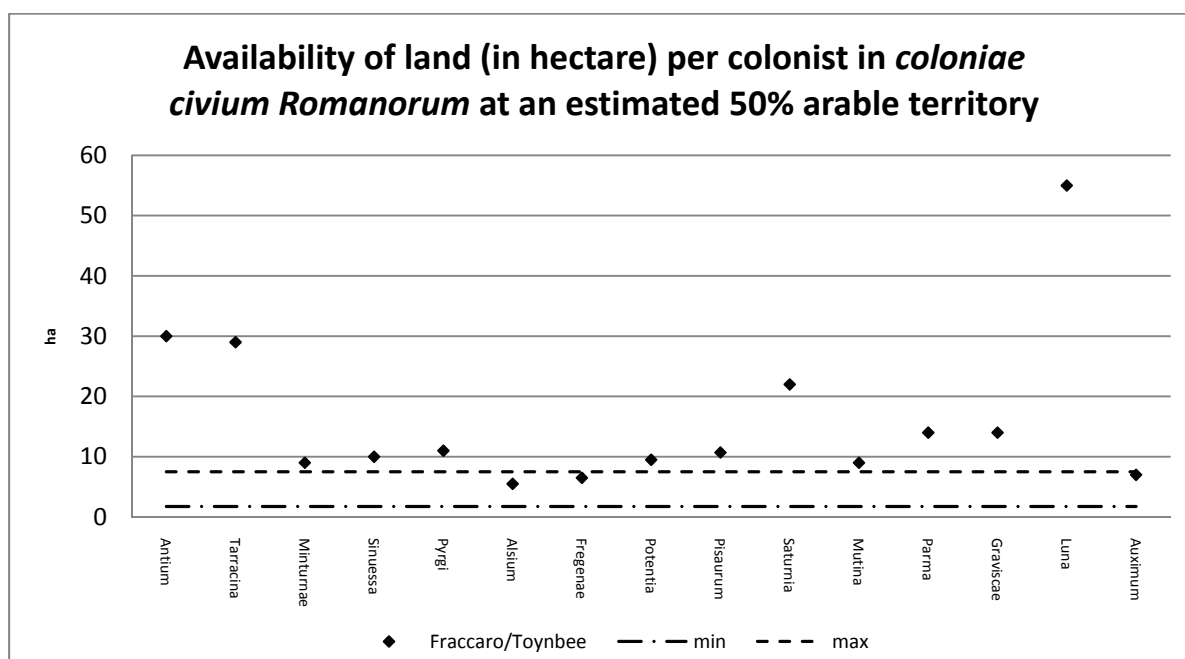
¹⁸¹ I used the same calculation strategy as I used for establishing population densities in Latin colonies. For colonial population numbers (P), I used 300 for the so-called maritime colonies (based on Livy) and 2,000 for the so-called agrarian colonies (also based on Livy). Only a few scholars give estimates for the sizes of the territories of citizen colonies. For this graph, I have used the estimate of Toynbee 1965a, Map 2.

¹⁸² A good example of this comes from the Latin colony of Cremona. Recent studies of the settlement patterns and centuriation systems in the *Ager Cremonensis* have argued that a considerable part of the territory was settled intensively and parcelled out only in the late Republican period (Vullo 1995).

simply locate them on Roman territory in the area of a certain *tribus*.¹⁸³ It is indeed doubtful whether maritime colonies did possess territorial sovereignty before the municipalization of Italy and there is a good chance that they were not only politically, but also in a territorial sense part of Rome.



Graph 7: Density of colonists per sq. km. (*Coloniae Civium Romanorum*).



Graph 8: Availability of land per colonial family (*Coloniae Civium Romanorum*).

¹⁸³ E.g. Cornell 1995, map 9.

3.2. *The percentage of Livy's colonists who could have fitted inside the colonial oppida*

In terms of settlement organization, ancient rural societies are generally divided into two categories: either, farmers are supposed to have lived predominantly in large nucleated settlements and walked considerable distances to reach their fields, leaving the countryside relatively empty, or those who lived dispersed over the countryside close to their farmlands.¹⁸⁴ Although a real agro-town system characterized by desolate rural landscapes similar to those which developed in southern Italy in the Medieval period probably did not exist in ancient Italy,¹⁸⁵ it is generally accepted that in various areas of pre-Hellenistic Italy a large proportion of the farming population did live in cities.¹⁸⁶ This was probably the situation in the Greek and Etruscan city-states from the Archaic to the Early Hellenistic period.¹⁸⁷ Generally speaking, the cities of these communities were very large and are thought to have contained up to 80 per cent of the total population. Other regions in this period, such as Latium and the Messapian Peninsula, are characterized by smaller cities which were located quite close to each-other allowing the majority of farmers to have an urban base.¹⁸⁸

According to the influential investigations of Garnsey, the balance between town-based and country-dwelling farmers altered significantly in the mid- and late Republican periods.¹⁸⁹ Cities were transformed from being residential areas into more administrative centres which housed only the elite and possibly some farmers who had their lands in the vicinity of the town.¹⁹⁰ In his view, this process of de-nucleation was strongly influenced by Roman land distribution programmes and colonization which encouraged settlement in the countryside. That most Roman farmers were expected to have a rural base is demonstrated by the fact that the size of Roman colonial urban centres was usually too small to contain a large population.¹⁹¹ He argues that by and large no more than 20-30 per cent of the colonists is likely to have had an urban base.¹⁹²

His argument is widely accepted by ancient historians and in most demographic models the urban population of Italian communities in the mid- and late Republican period is estimated at between 10 and 20 per cent of the total.¹⁹³ Despite this consensus, the idea of Roman colonies

¹⁸⁴ Duncan Jones 1974 Chapter 6; Garnsey 1979-1980.

¹⁸⁵ Garnsey 1979-1980.

¹⁸⁶ For the Roman world see Bekker-Nielsen 1989, 20-32 who argues, on the basis of the close distance between cities in Central Italy in the 1st century AD, that farmers in this period probably lived in agro-towns. For other ancient communities see notes below.

¹⁸⁷ For the Greek city-states see Hansen 2006, 37-47; Carter 2006, 209 on Metapontum, and Bintliff 1997 for a parallel in Boeotia. For a good example of the Etruscan world, see Perkins 1999, 113-114, Table 10.8 and fig. 10.7. The urban-rural split is estimated at 70-30%, based on a combination of field-survey data and information about Etruscan city size. See Perkins 1999, 108-109 with references to higher urban population estimates which results in higher urbanization rates.

¹⁸⁸ For Messapian towns, see Burgers 1998. Using this research and the excavated house plans, Yntema 2008, 381-382 estimated that the urbanization percentage was over 80% (see his Table 1).

¹⁸⁹ Garnsey 1979-1980.

¹⁹⁰ Garnsey 1979-1980, 15-16. see also Gabba 1994, 186 for a similar view.

¹⁹¹ Garnsey 1979-1980, 13-15.

¹⁹² His conclusion is based on the earlier studies of La Regina 1970-1971, 451-2) on Aesernia and Alba Fucens, and Tozzi 1972, 16-21) on Cremona, who demonstrated that the number of colonists mentioned by Livy could never have fitted inside these colonial town centres. In the case of Cremona, Tozzi calculated that about two-thirds of the colonists had to live outside the city proper, a figure which Garnsey argues must be raised since the assumed 320 persons/ha estimate used by Tozzi is probably too high; he argues that 150 persons/ha or lower is more plausible.

¹⁹³ Both high and low counters accept such an urbanization rate. See Lo Cascio 1999, 164-166 and De Ligt 2008a.

organized on the agro-town principle occasionally re-emerges in the discussion about colonial settlement organization; especially in an attempt to explain the relatively empty rural territories which have been encountered in various surveys.¹⁹⁴ Therefore, it seems a worthwhile exercise to re-examine Garnsey's arguments in the light of these new studies, taking into account the vast amount of new data on colonial *oppidum* sizes and urban settlement organization which has become available since the publication of his influential article.

Oppidum sizes and urban population estimates

In order to calculate likely urban population sizes, two variables are needed: urban population densities and the sizes of urban centres. I shall commence with a discussion of the first variable. Urban population densities do tend to vary markedly, not only over time, but also between coeval cities.¹⁹⁵ In Republican Italy, for which no written records about the size of urban communities exist, this means that all estimates have to be based on archaeological data.¹⁹⁶ The margins of error in such estimates are considerable.¹⁹⁷ Probably the best evidence for colonial urban population densities comes from Cosa. Decades of excavation have uncovered a large enough area to enable a fairly accurate reconstruction of the town plan. In the early second century the city of 13.25 hectares contained twenty-four larger and 224 smaller houses (See Fig. 2).¹⁹⁸ Since the town was founded as a colony and was sent a supplementary batch of colonists in the early second century, it seems reasonable to assume that each small house represents a family (c. 6 persons),¹⁹⁹ and every large house had a population twice that size. If these estimates are correct, a maximum population of 1,632 persons is obtained, that is 121 persons per hectare.²⁰⁰ Excavated house plans of the second century in other colonies are more or less of the same size as those of Cosa, which suggests that the calculated urban population density also applies to most other colonies of this period.²⁰¹

It is important to remember that these conclusions are based on excavated domestic architecture and urban settlement organization which all date to the second century. The stumbling block is that the second century situation is not necessarily representative of that which existed in the

¹⁹⁴ See for such an explanation of the missing sites problem: Hayes and Martini 1994, 36; Attolini, et al. 1991, 144 and Arthur 1991, 100.

¹⁹⁵ In Medieval Italy, for example, urban population densities varied between 100 and 500 persons per urban hectare (cf. De Ligt 2008a, 149-150). Much depends on available space, on technological innovations, on social structures and on cultural processes.

¹⁹⁶ See Duncan-Jones 1975, 260 n. 4 for recorded figures for ancient cities; none regards Italian cities.

¹⁹⁷ Wallace-Hadrill 1994; Morley 2008, 122-123. Estimates can differ by a factor of 3.

¹⁹⁸ Fentress 2003, 24.

¹⁹⁹ See for a discussion of Roman family sizes Witcher 2008, 285-288.

²⁰⁰ De Ligt 2008a, 151-152; Brown 1980, 18 estimates 1,100 inhabitants. Note that the estimated household size of c. 6 persons is considerably higher than the multiplier of 3.5 used to calculate total populations from colonists (interpreted as adult males, see Section 2.2.4.). This results from the fact that a household is likely to have consisted of more than one colonist. Especially fathers, sons and brothers may have lived together and shared an urban house for a while (see Hin 2008, 199 for likely percentages of Roman *iuniores* with living fathers and Tacoma 2006, 47-48 on the fact that in Roman Egypt more households could share one house). The aim here is to establish the likely *upper limit* of urban population densities which can be used to calculate the *maximum* number of colonists who could have lived in the urban centre.

²⁰¹ See Pesando 1997, 275-320 and Sewell 2010, 87-137 for good overviews of houses in Latin colonies. For the colonial houses at Capo Colonna measuring c. 510 m² see Ruga and Spadea 2005, 317-318 esp. n. 12. See for other examples and arguments also De Ligt 2008a, 152-154 with references.

earlier phases of colonial towns. Regrettably, very little is known about the urban lay-outs of colonial centres in this pioneering period as they have been cloaked by the monumentalization phase of the post-Hannibalic period.²⁰² The little archaeological evidence available about them does suggest that, in their early phase, colonial town centres were less densely populated and that there were large empty spaces within the town walls. The excavated houses of the early second century in Cosa, for example, seem to have been built on virgin soil, which suggests that the city had not been fully built up in the previous early colonial period.²⁰³ Similarly, surveys carried out inside the town walls of Interamna Lirenas and Cales suggest that their settlements in the third century did not cover the entire walled area. The majority of black gloss ceramics found are from the second century and most of the early material is found in restricted areas of the town, often connected with cultic contexts.²⁰⁴

Archaeological research in other, non-colonial urban centres of the fourth and early third century also suggests that cities in this period were only partially used for domestic purposes. Recent studies in Pompeii have shown that the fortified city (65 hectares) of the fourth and third centuries was sparsely populated and that agriculture was pursued inside the town walls.²⁰⁵ On the basis of these observations, it seems reasonable to assume that early colonial cities were not very densely settled and that it is unlikely that they exceeded the 120 persons per intramural hectare which was calculated for second-century Cosa.

²⁰² In the Latin colony of Fregellae only one possible elite residence can be dated to this period, but in all other cases excavated urban residences date from the beginning of the second century and thereafter. For the houses of Fregellae see Coarelli and Monti 1998, 62-65.

²⁰³ Only a very limited amount of black gloss ceramics dating to the early colonial phase (i.e. the third century) has been encountered. See Taylor 1957 for a study of the black gloss pottery of the early excavations; for the black gloss ceramics recovered during the recent excavations see <http://www.press.umich.edu/webhome/cosa/> (last accessed 9-3-2011).

²⁰⁴ For Cales see: Pedroni 1986; Pedroni 1990. Of the 17 locations where material is collected, only 5 had clear late fourth- and third-century pottery. Three of those are clearly connected with cultic activity (around the temple area; on the *arx* and in the votive area loc. Ponte delle Monache), two are secondary deposits (fill of city wall). There is an interesting correlation between the find spots of pre-Roman and early colonial material. For Interamna see Hayes and Wightman 1984; Hayes and Martini 1994, 38 and 138-145.

²⁰⁵ Nappo 1997; Pesando 1997, 12-27.

Table 9: Walled area of <i>Coloniae Priscae</i> ²⁰⁶		
< 15 hectares	20-25 hectares	35-45 hectares
Setia (12)	Cora (20.4)*	Fidenae (45)
Sutrium (c. 7.5)*	Antium (23)	Signia (c.49)*
Nepet (14.5)*		Norba (37.2)*
		Ardea (40.5)*
		Satricum (36.6)*

Judging by their size, the *oppida* of the old colonies which were founded before the Latin War can be divided in roughly three categories (see Table 9). If it is assumed that these colonial centres were as densely populated as Cosa was in the second century, this would imply populations of c. 5,000 people for the largest category of cities, c. 2,500 for the middle class towns and c.1,300 for the smallest *oppida*. However, this seems very unlikely. As I have discussed above, there is very little evidence for densely populated cities in this period. In Satricum, for example, decades of archaeological excavation have not yielded any traces of colonial urban dwellings but numerous graves dating to the fifth and fourth century have been found inside the town walls, indicating that the town was certainly not fully built-up in this period.²⁰⁷ As a rule, Archaic towns often have large non-built up areas inside the fortified walls and often less than half of the intramural area was used for domestic or public buildings.²⁰⁸ Therefore, it is a reasonable assumption that the colonial *oppida* of this period were sparsely settled. On the basis of an estimated built-up area of 50 per cent, the dimensional categories of colonial *oppida* listed above roughly correspond to populations of respectively 500-750, 1,250 and 2,500 persons (that is, 150-250, 375 and 750 colonial families).

²⁰⁶ Sizes marked with an asterix are based on Lackner 2008, 240-243. For Setia: Attema 1993, fig. 22; Fidenae: Miller 1995, 318; Antium: Sommella 1988, fig. 3. The town is slightly smaller in the reconstruction of Guaitoli 1984.

²⁰⁷ Gnade 2002.

²⁰⁸ Bekker-Nielsen 1989, 30. For a good example of the Etruscan world, see Perkins 1999, 108-114. For the Greek cities see Hansen 2006, 37-4. For Messapian towns, see Burgers 1998. Intramural survey demonstrated that probably about 50-60% of these cities was used as domestic space. In general on the urban planning of early Republican colonies see Termeer 2010, 47-48.

Table 10: Walled area of *Coloniae Latinae*²⁰⁹

< 15 hectares	30-40 hectares	60-80 hectares	100> hectares
Narnia (c.11.9)*	Firmum (30)*	Cales (61.2)*	(Beneventum) (100)
Aesernia (9.6)*	Suessa Aurunca (33)*	(Hatria) (70)	Paestum (120,4)*
Spoletium (c. 16)*	(Interamna Lir.) (30-40)*	Sora (c.71)*	(Luceria) (195)
Cosa (13.5)*	Alba Fucens (34)*	Fregellae (c. 81,6)*	Vibo Valentia (c. 200)*
	Venusia (20-42)	(Interamna Lir.) (70)*	
	Ariminum (46.5)*	Brundisium (c. 80)*	
	Beneventum (42-44)*	(Luceria) (70)*	
	Placentia (42.2.)*		
	Cremona (30.7-46)*		
	Bononia (c.50)*		
	Aquileia (30.4-44.4)*		
	(Hatria) (c. 37)*		

In the case of the Latin colonies founded after the Latin War, it is possible to discern four dimensional categories. On the basis of a 120-persons-per-hectare estimate, the populations of these centres would have fallen within the four following bands, 1,000-1,500, 3,500-5,000, 7,000-10,000 and > 12,000 souls. Again, it is unlikely that such figures were actually achieved. As said above, very few traces of habitations dating to the pre-Hannibalic period have been recognized in colonial *oppida*, which makes it unlikely they were as densely populated as Cosa was in the second century.²¹⁰ Moreover, most of the larger *oppida* were not created at the time of the foundation of the colony, but are of pre-Roman origin and it is doubtful if the colonists filled up the whole intramural area.²¹¹ In fact, in most of the cases investigated it seems that only a limited area inside these pre-Roman fortifications was actually inhabited in Roman Republican times.²¹²

The situation in the colonies founded in the Greek cities (e.g. Poseidonia, Thurii and Vibo) is more complex. Before the Roman conquest, these very large cities were not fully built up and vast

²⁰⁹ Sizes marked with an asterix are based on Lackner 2008, 240-243. For the 70 hectares of Hatria see Guidobaldi 1995, 199 and Azzena 2006; the 100 hectares of Beneventum results if the Cellarulo area is included (Giampaola 1991), tav. V; For the 195 hectares of Luceria see Lippolis 1999, fig. 1.

²¹⁰ See above.

²¹¹ For example, in Cales and Hatria clear traces of an indigenous phase have been recognized inside the colonial town centre (Pedroni 1986, Pedroni 1990, Martella 1998, 48 with further references). Furthermore, recent excavation of the walls of what might have been the Latin colony of Saticula has clearly shown that it was fortified well before the Roman period (De Vito and Di Maio 1998. The wall was enforced in the later third / early second century). Likewise, in the case of Luceria it is very implausible that the Roman colonists built a city-wall which enclosed an area of 195 hectares. Large fortified enclosures are a typical Daunian phenomenon (e.g. Arpi, Herdonia) which suggests that the walls of Luceria belonged to the pre-Roman phase of the city. The walls of Brundisium are also of a pre-Roman date (see Burgers 1998). In the case of Fregellae, however, it has been argued that the new colony, although it borrowed its name from the conquered town, was founded *ex novo* on a different location (Coarelli and Monti 1998, 47-48).

²¹² For Luceria see Lippolis 1991; Mazzei 2001; Quaranta 2002. The theory that only a restricted part of the city (<50 hectares) was inhabited in Roman times is based on the fact most Roman finds are found in a limited area of the town in which a remarkable orthogonal pattern (measuring c. 38 hectares) is also recognizable in the current street-grid. However, the identification of the colonial centre with this orthogonal grid is rather doubtful since the latter has not been properly dated. A pre-Roman date for the grid cannot be excluded since there is ample evidence that orthogonal town planning was already *en vogue* in Italic communities before the Roman period. For Fregellae, on the basis of a different orientation of the street grid, it is argued that the early colonial settlement was confined to the south of the city area (Crawford, et al. 1985, 84).

empty areas could be found in them.²¹³ What happened to these cities when a colony was founded there is still poorly understood, but there are strong reasons to assume that a considerable part of the indigenous population continued to reside in these cities after colonization.²¹⁴ If this means that these cities became more crowded as a result of the arrival of migrant colonists is difficult to say at the present state of research. Paestum seems to have flourished after its colonization, but the construction of an amphitheatre in the centre of the town during the Late Republic could suggest that it was not fully built up in that period.²¹⁵ In Thurii, the archaeological record seems to attest to a contraction of the population of the city after the Roman colonization. Scholars have identified a second wall circuit dating to the first century which delimited an area of just 50 hectares of the former Greek city. Most of the material dating to the Roman period also comes from this area.²¹⁶ In Vibo, traces of a fortification wall dated to the later Republican period have also been identified inside the larger pre-Roman fortifications, which might testify to a reduction in the size and population in this city.²¹⁷

²¹³ See Hansen 2006, 37-47.

²¹⁴ See Chapter 5. Especially in Paestum, the evidence for continuity between the Greek-Lucanian phase and the Roman period is very strong (E.g. Greco 1988; Torelli 1999, 45; Crawford 2006). Similarly, archaeological investigation inside the 200 hectares large city walls of the Greek/ Bruttian city of Hipponion-Vibo, which received a Latin colony in 192, also seems to suggest that the original population was not entirely evicted (Iannelli and Givigliano 1989, 678).

²¹⁵ In the case of Paestum some scholars even suggest that the original Greek/ Lucanian town was enlarged by c. 50 hectares after the foundation of the colony (e.g. Greco 1988, 82 and page 80 fig. 1). This hypothesis has been rejected in more recent studies (see Lackner 2008, 139-140 for an overview of this debate).

²¹⁶ E.g. Greco, et al. 1999; Carando 1999. See Chapter 5 for a discussion of the recent theory of Caruso 2004 that the city of Thurii was not the administrative centre of Copia.

²¹⁷ Perotti 1974, 132; Iannelli and Givigliano 1989, 637. In the lower part of the city of Vibo, an orthogonal street grid has been recognized which is considered to have been the colonial settlement. Apparently the grid was based on the Roman *actus*, which is believed to suggest a Roman origin (See Aumüller 1994, 241-278 for a study of the wall and a good map of the town, with 'Roman' street grid. Since the grid is not properly dated, and the reorganization of towns in an orthogonal fashion continued in the late Republican and early Imperial period, the connection with a colonial settlement is not very solid. Furthermore, the street grid of Paestum is also based on a measurement unit which corresponds to the *actus* (35 m.), but which is dated in the archaic period (Lackner 2008, 140).

Table 11: Walled area of <i>Coloniae Civium Romanorum</i> ²¹⁸			
2-3 hectares	5-6 hectares	7-10 hectares	18-25 hectares
Ostia (2.4)*	Croton (c. 5-6)	Sena Gallica (c. 7-10)	Sipontum (c. 20)*
Minturnae (2.2)*	Terracina (c. 5-6)	Castrum N. Pic. (8/15)*	Potentia (19.9)*
Puteoli (3)*	(Buxentum) (c. 5-6)	(Buxentum) (9,3)*	Pisaurum (c. 18.5)*
	Pyrgi (c. 5.5)*	Volturnum (7)*	Saturnia (25.6)*
		Tempsa (c. 12)*	Parma (26.2)*
			Luna (24.6)*
			Salernum (18)*

As a rule the walled areas of Roman colonies are small. The earlier citizen colonies of the maritime type are characterized by very small rectangular *castrum*-like fortifications which enclosed areas of either 2-3, 5-6 or 7-8 hectares (see Table 11). Based on an estimate of 120 persons per hectare, which seems reasonable for the second-century colonies at least, this result in population sizes of 300, 600 and 900 persons. The citizen colonies founded after 184 are larger, but still small in comparison to most Latin colonies; all have about the same size (between 20-25 hectares) and could probably have housed a maximum of 2,500-3,000 people.

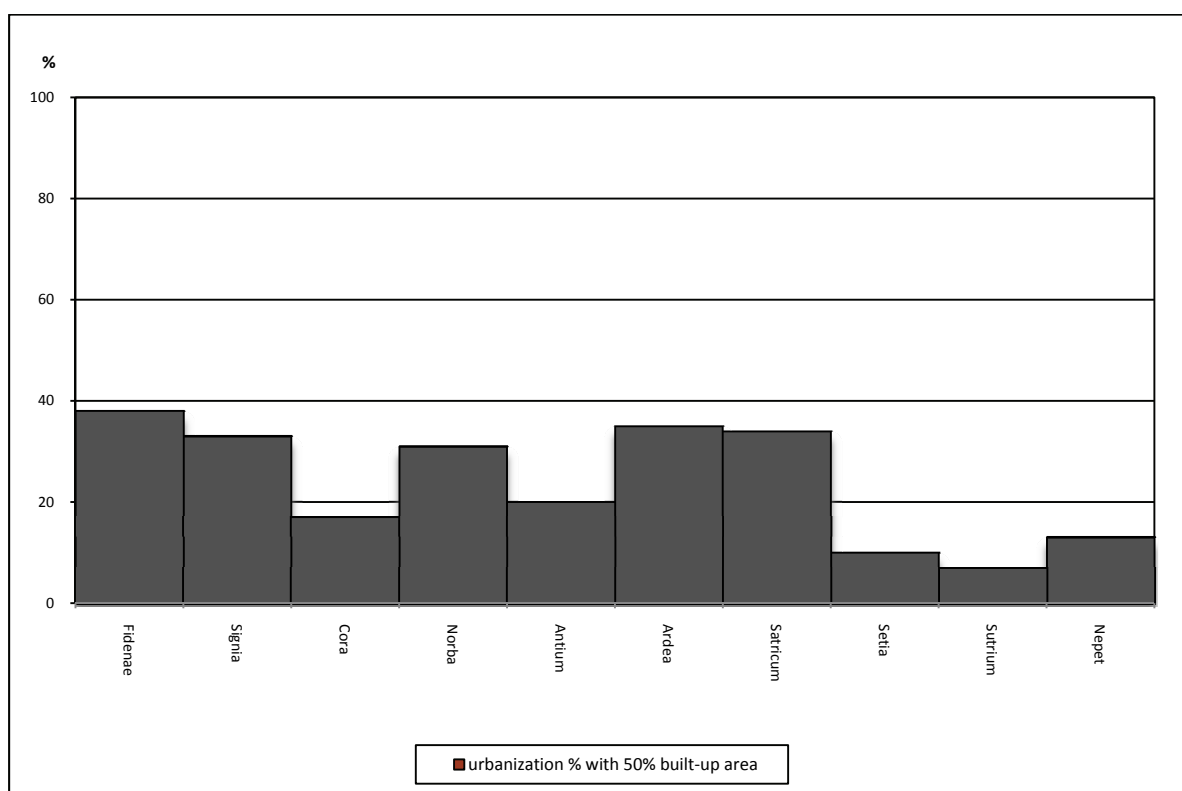
Maximum urbanization percentages

Taken as a whole, the archaeological evidence on colonial cities and their likely populations discussed above strongly supports Garnseys initial thesis that in most Roman and Latin colonies only a small percentage of the total number of colonists mentioned by Livy could have had an urban base. For colonies founded before the Latin War, the combination of the literary data and the archaeology of colonial *oppida* suggests that urbanization rates remained well below the 50 per cent mark and that in most cases even less than 30 per cent of the total population could have resided inside the town walls (Graph 9). These percentages must be considered theoretical *maximum* figures and in several colonies (as, for example, Satricum) the real urbanization percentage is likely to have been considerably lower.

A similar picture emerges in the Latin colonies founded after the Latin War (Graph. 10). Although the graph shows more variety and high urban population rates are possible in a couple of instances, in most cases it is unlikely that such urbanization percentages were actually achieved (cf. above). In these colonies most calculated urbanization rates also fluctuate between 20 and 30 per cent. The maximum urbanization rate of between 40 and 50 per cent calculated for the last two Latin colonies founded might reflect a genuine trend. The town walls were very probably constructed not

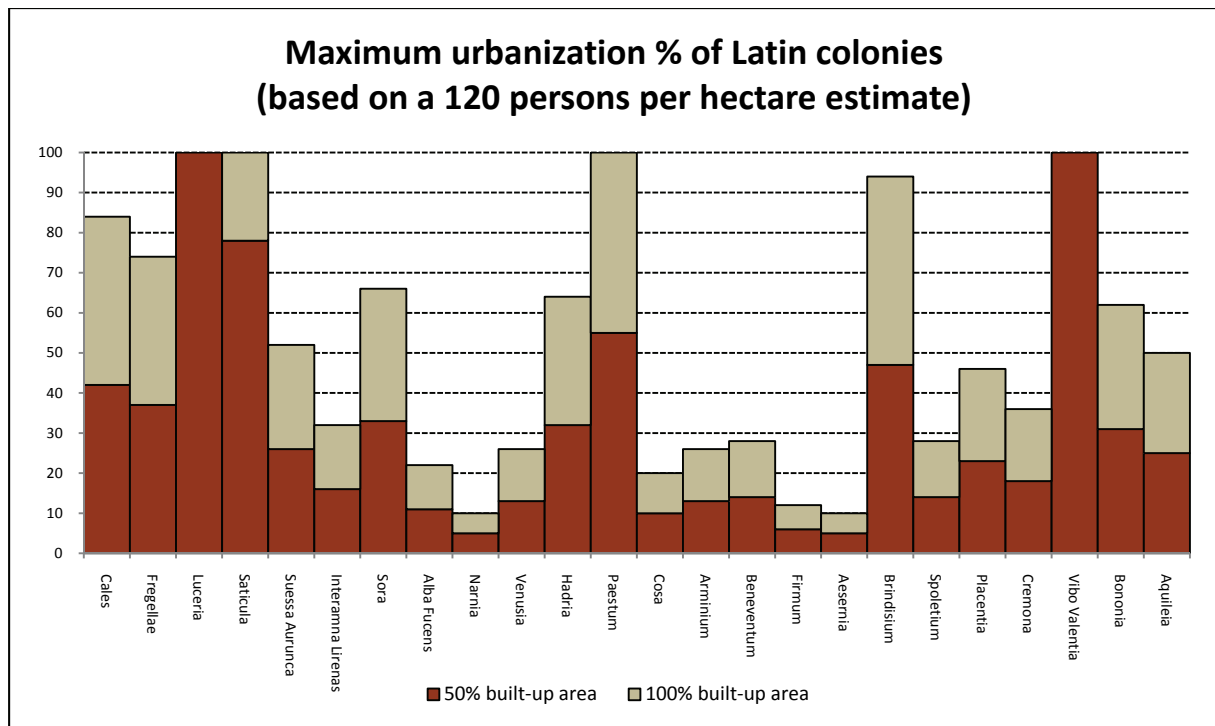
²¹⁸ Sizes marked with an asterix are based on Lackner 2008, 240-243. Croton: Sommella 1988, fig. 2; Terracina: no clear plan is known, but see Sommella 1988, fig. 64 for a rough estimate of the probable town size; Buxentum: Gualtieri 2003, fig. 23. The Greek Lucanian town is larger (9.3 hectares), an orthogonal street grid, believed to be indicative of the Roman colony, is only visible in a restricted part of the town (c. 5 hectares). Sena Gallica: Sommella 1988, fig. 20.

much later than the foundation of the colony and if, as seems likely, they were organized in the same manner as the better investigated colonies of the same period, there is no reason to lower the anticipated urban population density. It is interesting that citizen colonies founded in the same period have a similar urbanization percentage. Citizen colonies founded after 184 are all about the same size (between 20-25 hectares) and could probably have housed a maximum of 40 to 50 per cent of the total number of 2,000 colonists recorded in the sources. The small maritime colonies could have housed in-between 33 and 100 per cent of the fixed population figure of 300 souls recorded in the sources.²¹⁹



Graph 9: Maximum urbanization % of colonies founded before the Latin War.

²¹⁹ At first sight, this calculation sits uneasily with a passage in Livy which states that settlers in maritime colonies during the Second Punic War had to take an oath not to sleep outside the walls for more than 30 days as long as the enemy was in Italy (Livy 27.38). This seems to suggest that all colonists had a place to sleep inside the colonial *oppidum*. Of course, this does not necessarily imply that they all owned urban houses, as they could have had only some provisional sleeping arrangements for wartime. This seems to be supported by another passage in Livy (22.14) which describes how, during the Second Punic War, Fabius saw the enemy burning down the colonial farmsteads in the territory of Sinuessa (which are explicitly described as their homes).



Graph 10: Maximum urbanization % of Latin colonies (based on a 120 persons per hectare estimate).

Summary

New archaeological evidence about the sizes of colonial *oppida* seems to confirm Garnsey's initial thesis that most Roman colonists had a rural base. The information available about urban architecture and city planning suggests that urban population densities increased in the course of the third and second centuries, but even then probably did not exceed 120 persons per hectare. The earlier periods will remain a conundrum until more research is done, but the sparse evidence available, especially information from other coeval Italian cities, suggests that towns were not fully built up and that the population per hectare of walled space was about half as dense as in later periods. This implies that most colonial *oppida* could not have accommodated more than 20-30 per cent of the colonial population recorded in the sources. Possible exceptions were those colonies which were founded in the second quarter of the second century, the maritime colonies and some of the early fourth century colonial settlements which might have had urbanization percentages of 50 per cent or more.

3.3. Proportional differences between population and size of *oppida* in Latin and citizen colonies

The information on the sizes of colonial *oppida* also offers an opportunity to verify an old argument which has been used in support of the credibility of the literary demographic information and maintains that there is a match between sizes of colonial *oppida* and Livy's figures. For example, Brown has argued that the proportional difference between the size of the city walls of Cosa and Alba Fucens is similar to that of the known colonial population quota of 2,500 and 6,000 (e.g. 5:12).²²⁰ A couple of years earlier, Galsterer has argued more generally that there is a clear relationship between the length of Latin colonial city walls and the number of colonists (ratio 1-2 colonists per metre).²²¹ Moreover, the excavations of several maritime colonial town centres have demonstrated that they indeed were much smaller than the Latin ones, just as Livy had informed us.²²² These studies have been based on a very limited number of examples and the value of this kind of argumentation has often been doubted.²²³ The vast amount of new data on colonial *oppidum* sizes makes it now possible to test this hypothesis on a much broader scale.

In contrast to what earlier scholars believed, there is absolutely no correlation between the size of colonies mentioned by Livy and the size of *oppida* (cf. Table 10).²²⁴ On the contrary, the smallest colonies reported by Livy, Luceria and Cales (2,500 settlers), both have very large walled areas, whereas large colonies of 6,000 settlers, such as Alba Fucens and Placentia, have medium-sized *oppida*, which do not differ substantially from those of the colonies with a reported population of 4,000 settlers. These results leave two possibilities open: Livy was wrong or there was no direct relationship between the number of Latin settlers and the size of *oppida*. The latter thesis is, I believe, the stronger candidate. As I have discussed previously, several colonies were founded in already existing towns (this is particularly evident in the case of the larger categories of colonies), which leaves the question of how much space of the walled area was occupied by the colonial settlement unclear.²²⁵ Moreover, the size of most other *oppida* is clearly determined by the characteristics of the landscape (colonial town centres are often placed on hilltops). The evidence therefore neither supports nor convincingly falsifies Livy's information. The situation in citizen colonies is rather different. The suggested differences in size between maritime citizen colonies and their later, so-called agrarian counterparts (size ratio of c. 1:7) is reflected quite accurately in the recorded town sizes. Excavations of several maritime colonies have revealed that most of these colonies were indeed very small

²²⁰ Brown 1980, 16.

²²¹ Galsterer 1976, 43.

²²² See Brandt 1985 for a good overview of the lay-out of maritime colonies.

²²³ According to Bispham, these attempts are baseless and do not prove that colonial foundations had standard numbers of settlers, as Livy seems to suggest (Bispham 2006, 123).

²²⁴ The new data convincingly falsifies Galsterer's theory (Galsterer 1976, 43, discussed above) that there was a clear relationship between the length of Latin colonial city walls and reported numbers of colonists.

²²⁵ Attempts to recognize the colonial settlements within these larger settlements have not been very convincing and are mostly based on undated orthogonal street patterns (cf. above). Clearly in colonies which were founded in former Greek cities such as Vibo Valentia (Greek Hipponion), an orthogonal lay out should be no surprise. Orthogonal street patterns in indigenous towns (Luceria) could also be pre-Roman (see, for example, the indigenous town of Pomarico Vecchio) or have been created at a later moment in time. Even if these recognized colonial settlements are accepted, the overall conclusion reached would not alter substantially: all settlements then fall in the category of medium-sized cities.

castrum-like settlements (c. 2.5 hectares) which could accommodate only a limited number of people, whereas the later colonies were fairly substantial habitation centres of almost equal size (c. 20 hectares); a proportional size ratio of c. 1: 8.

Although consistently small, the fortified centres of maritime colonies are not as uniformly sized as the recurrent number of 300 settlers reported by Livy suggests. Some of the larger colonies are up to three times as large as the smallest (cf. above). Whether these differences in Roman colonial town centres directly reflect the size of the colonial population cannot be established with any certainty, but the seemingly proportional increase (multiplication factor of 1, 2, 3) at least hints that there is some relationship between the two.

4. Dots and colonists: the problem of the missing sites

So far, the discussion has centered on the demographic landscape as it has been suggested by the literary sources, Livy in particular. Although some doubts have been expressed about the reliability of his figures, they have been shown to be compatible with other information in the sources. In this sections, a very different, independent data-set for reconstructing colonial demographics will be analysed, namely archaeology. The potential of archeology to aid demographic studies is now widely accepted and a large number of studies have recently been published which either attempt demographic reconstructions on the basis of the archaeological data-set or discuss the best methodology by which to apply such endeavours.²²⁶ In principle, these studies estimate population sizes using two parameters: the number of site types per period (sometimes differentiating between certain and possible sites) and the multiplication of these by an estimated number of people who might have inhabited the different types of site.²²⁷ In the conventional understanding of colonial settlement organization, the colonial landscape consisted of two site types: the colonial urban centre and isolated but regularly dispersed colonial farms. If the theory just discussed is correct in assuming that colonies were not organized as agro-towns which housed most of the agricultural population, the direct implication is the presence of densely settled rural landscapes.

In most studies dealing with Roman colonial rural settlement organization each colonist is expected to have built his own farm on his allotted holding.²²⁸ In such a scenario the number of rural sites must more or less equal the number of colonists which lived in the territory.²²⁹ In this section I

²²⁶ Seminal in this regard are the *Populus colloquia* which took place in 1995 and which were published in five volumes (series eds. Barker and Mattingly). See especially the first volume (Bintliff and Sbonias 1999). For Roman Italy see esp. Witcher 2005; Witcher 2006; Witcher 2008; Launaro in press.

²²⁷ For a discussion of this methodology see Sbonias 1999; Witcher 2008, 288-292. Since it is widely accepted that archaeological surveys do not recognize all ancient dwellings and, in particular, overlook the traces of the smaller rural sites, an adjustment is often made on the basis of likely recovery rates.

²²⁸ E.g. Rathbone 1981.

²²⁹ No doubt, this is an oversimplification of reality, and there is good reason to suspect that the actual number of colonial farms was lower than the number of reported colonists. For example, it is likely that colonists, especially fathers, sons and brothers, frequently lived together in a single farm. Moreover, since there is reason to believe that colonies suffered from depopulation as a result of high mortality and emigration (Cf. Section 2.2.4), it is unlikely that all *adscripti* successfully

shall explore what populations the archaeological record suggest if this model of colonial settlement organization is adopted.

4.1. *The results from traditional, site-orientated field surveys*

Since the early twentieth century, various scholars have begun to investigate colonial rural territories in a systematic manner and archaeological maps now exist for most colonial landscapes. One of the first to produce maps of this kind was Lugli, the founder of the well-known *Forma Italiae* series. In the 1920s he had already compiled inventories of the archaeological remains in the Pontine region, covering parts of the territory of the old Latin colony of Circeii as well as that of the Roman colony of Anxur.²³⁰ These early reconnaissance projects focused almost exclusively on the monumental remains which dated especially to the late Republican and Imperial periods. For the earlier colonial periods, the merit of these topographic studies is that they succeeded in locating many colonial *oppida*, clearly recognizable by their monumental fortifications constructed of polygonal masonry.²³¹ In view of their focus on the monumental, these studies reveal almost nothing about the simple rural settlements of the first-generation colonists.

More systematic field surveys were launched in the 1950s, commencing with the well-known South Etruria Survey organized by the British School in Rome which covered large parts of the territory of Veii, as well as that of the old Latin colonies of Sutrium and Nepes.²³² The specific goal of this large-scale project was to record the many sites which were surfacing as the result of rapidly expanding suburban growth and deep-ploughing activities. Although research initially focused on ancient roads, it was soon realized that the more inland areas should also be investigated before modernization erased all archaeological traces. Hence, a more or less systematic field survey methodology was adopted which also allowed the recording of the simpler archaeological remains.²³³

Especially in the late 1970s and 1980s, field survey gained strongly in popularity as it fitted in well in the methodological and analytical framework in archaeology dominant at the time: processualism.²³⁴ In this period, extensive areas in Italy were investigated, also covering substantial

raised large enough families of their own to necessitate the building of individual farms. On the other hand, as I shall argue in chapter 5, we should expect indigenous people to have lived within the colonial territory who were not all included amongst the *adscripti* reported by Livy.

²³⁰ Lugli 1926; Lugli 1928. After the Second World War, several other *Forma Italiae* issues were published covering other territories in the area (e.g. Brandizzi Vittucci 1968 for the territory of Cora). See Attema 1993, 56-89; Van Leusen 2002, Chapters 9 and 13 for the character of these and earlier pioneer studies in the Pontine Region. In general on this research tradition: Terrenato 1996.

²³¹ See Attema 1993, 56-65 with references.

²³² Kahane, et al. 1968, and Potter 1979.

²³³ For a good discussion of the methodology applied see Terrenato 1996, 217-218, who observes that, by that time, the methodology applied by the Italian *Forma Italiae* researches was actually quite comparable with that employed in the South Etruria Survey. The main differences in his view are the stronger focus in the Italian tradition on the classical periods and the selection of sample areas which was based on modern IGM maps in case of the *Forma Italiae*, whereas in the South Etruria Survey a historically significant area was selected.

²³⁴ Terrenato 1996. See also Bintliff 1991; Knapp 1992 for landscape studies which have found inspiration in the theories of the French Annales School. In terms of research objectives, two slightly different approaches can be distinguished in this period: projects in the processual and *Annales* tradition which aimed to reconstruct the long-term settlement history of a certain region, often geomorphologically defined such as river valleys (the most famous example of this tradition is Barker's

terrains in former colonial territories.²³⁵ Generally, the goal of these surveys was to reconstruct settlement histories of large regions, which were investigated by means of selective sampling, often based on transects cutting across the main geomorphological and geological zones.²³⁶ The sampling areas were then systematically investigated by walking all accessible fields with 5 to 25 metres' distance between the field walkers; the distance often adjusted according to visibility conditions.²³⁷ All notable concentrations of archaeological artefacts were recorded on topographical maps of the area, and materials for chronological and functional analysis were collected and studied.

These projects mapped the remains of large numbers of small isolated Republican farmsteads, scattered over the length and breadth of the territories investigated. This image tallied strongly with the historically expected regularly settled colonial peasant landscapes. However, more detailed analysis of the chronology of these recovered sites soon revealed an important problem with the field-survey data-set: only a small number of the recovered sites contained pottery datable to the early colonial period (that is, generally the century in which the colony was founded).²³⁸ For example, Rathbone calculated that, during the survey carried out by the Wesleyan University in the territory of the Latin colony of Cosa, only between 0.3 and 0.8 per cent of the expected number of farms of the third century had been recognized.²³⁹ In some other surveys, the mismatch between the historically

Biferno Valley Survey project (Barker 1995)), and survey projects influenced more by historical questions which investigated territories and land-use patterns of a specific period and historical community (e.g. Arthur 1991; Crawford, et al. 1986). Both schools employed comparable collection strategies; the most important differences are in the selection of research areas and the chronological interests.

²³⁵ The most notable examples are: the Anglo-Italian Albegna Survey project which commenced in the late 1970s under the direction of Carandini, which covered the territories of the Latin colony of Cosa and the Roman colonies of Saturnia and Heba (Carandini, et al. 2002); the Liri Valley Survey which covered the territories of Fregellae and Interamna Lirenas (Hayes and Martini 1994) and the Northern Campania Survey which investigated parts of the territories of Sinuessa and Suessa Aurunca (Arthur 1991). See Appendix 1 for a more complete overview.

²³⁶ On this methodology Orton 2000.

²³⁷ E.g. in the Fregellae Survey, all accessible land where soil was visible was covered with a distance of 5 metres between participants (Crawford, et al. 1986, 42). Fields which could not be surveyed because of vegetation cover were visited the following year. In the Northern Campania Survey two different approaches were combined: intensive survey with walked transects of 5 metre spacing (this was done in the case of the map sheet of Mondragone, a north-south strip 2 kilometres wide of the map sheet of Carinola and the Massico Piedmont area of the map sheet of Sesse Aurunca). In the rest of the area, alongside roads and in less visible areas, a 'spot survey aimed at supplementing information for the settlement and land-use pattern' was used (Arthur 1991, 16). In the Liri Valley Survey, the distance between participants was larger, namely 15-25m. However, the participants walked in a slightly zig-zag fashion to reduce the chance of missing a site (Hayes and Martini 1994, 2-3). In the Albegna Valley Survey, the distance between participants was 10 to 20 metres, depending on the visibility of the field. For the more recent *Forma Italiae* volumes which cover the territory of Venusia for example, no clear information about the survey methodology is given; nevertheless, the relative high number and the often small size of recorded sites indicates a fairly intensive approach. It is generally assumed that a distance between participants of in-between 5 and 20 m. guarantees that most surface scatters of settlement sites are recovered.

²³⁸ In the same period, the knowledge of fine ware ceramics and their chronology made rapid strides. Studies such as Morel's *Céramique campanienne* (1981) and Hayes' *Late Roman Pottery* (1972) made it possible to refine the chronological resolution of the survey-data.

²³⁹ Rathbone 1983. During the survey only 2 sites dating to the late third/ early second century were recognized (Dyson 1978). Cf. Celuzza and Regoli 1982, 37 for a similar conclusion based on new survey data. Slightly higher, but still very low Early Colonial site densities in Attolini, et al. 1991, fig. 2; Cambi 1999, fig. 8.2. and Carandini, et al. 2002, fig. 40. Based on these last statistics Cambi (Cambi 1999 and Carandini, et al. 2002, 137-145) calculated that the Albegna survey project was able to recover between 20 and 33% of the probable third- and second-century colonists' dwellings in the territory of Cosa. But, on critical examination, his assessment of the quality of the survey record has proved to be too optimistic (Pelgrom 2008, 348 n. 46).

expected colonial landscapes and the results of the survey was also noted, although not expressed in absolute recovery rates.²⁴⁰

My analysis of a large number of surveys conducted in Roman colonial territories demonstrates that these disappointing results do not stand alone, but that low recovery rates are symptomatic for most areas that have been investigated using a traditional, site-orientated survey methodology (see Appendix 1 for the survey projects and their results and Appendix 3 for a detailed description of the compatibility between the archaeological record and the text-based expectancy using a basic site=colonist equation). The recorded settlement densities for early colonial sites are usually far below 1 site per sq. km, and even if all Republican sites are taken into account settlement densities rarely exceed densities of 3 sites per sq. km. This is clearly much lower than what ought to be expected based on text-based demographic reconstructions (compare the Graphs 11-15 below with Graphs 3 and 7 in Section 3.1.).

How can this mismatch be explained? Generally, the explanation of this so-called ‘problem of the missing sites’ is that it is the result of the incapability of survey archaeology to recover the traces of colonial dwellings. It has been assumed that the dwellings of these autarchic soldier farmers were very modest and therefore difficult to recognize in the field,²⁴¹ a standpoint supported by methodological studies which have demonstrated that small structures are easily overlooked by standard field surveys.²⁴²

This line of argument has recently been defended by Rathbone.²⁴³ Taking his evidence from the literary sources (mainly on the sizes of allotted holdings), he argues that colonial peasants (especially those in citizen colonies) were subsistence farmers whose assets only just qualified them for membership of the fifth class. He imagines, therefore, that these relatively poor people lived in very simple houses, comparable to the oval mud-brick huts known to have existed in Central Italy in the archaic period.²⁴⁴ He believes the fact that such ephemeral settlements are not recorded by archaeological field surveys can be demonstrated by evidence from excavations. The few sites recognized during surveys which have been properly excavated (all second century or later) have turned out to be solidly built edifices, the majority of which measured more than 200 sq. m. (although the smallest was 50 sq. m.) and had tiled roofs.²⁴⁵ Rathbone claims that these farms could not have been the dwellings of the simple subsistence farmers and probably belonged to people in the higher

²⁴⁰ Hayes and Martini 1994, 36; Arthur 1991, 100.

²⁴¹ E.g. Rathbone 1981, 17; Rathbone 2008 and Scheidel 1994, 11. A slightly different explanation is that colonists lived in very simple houses because they used all their energy to build the requisite public structures (Celuzza and Regoli 1985, 51; Muzzioli 2001, 9), or that, as a result of natural attrition and the depredations of the Gallic invasions and Punic Wars, early settlements were short-lived and therefore difficult to recognize (Dyson 1978, 259).

²⁴² Plog et al. 1978; Cherry 1983. For a good recent discussion of the relationship between survey intensity, survey area, and site retrieval rates in Italian archaeology see Van Leusen 2002, Ch.4, with further references.

²⁴³ Rathbone 2008.

²⁴⁴ Rathbone 2008, 310.

²⁴⁵ Rathbone 2008, 310-321 for references.

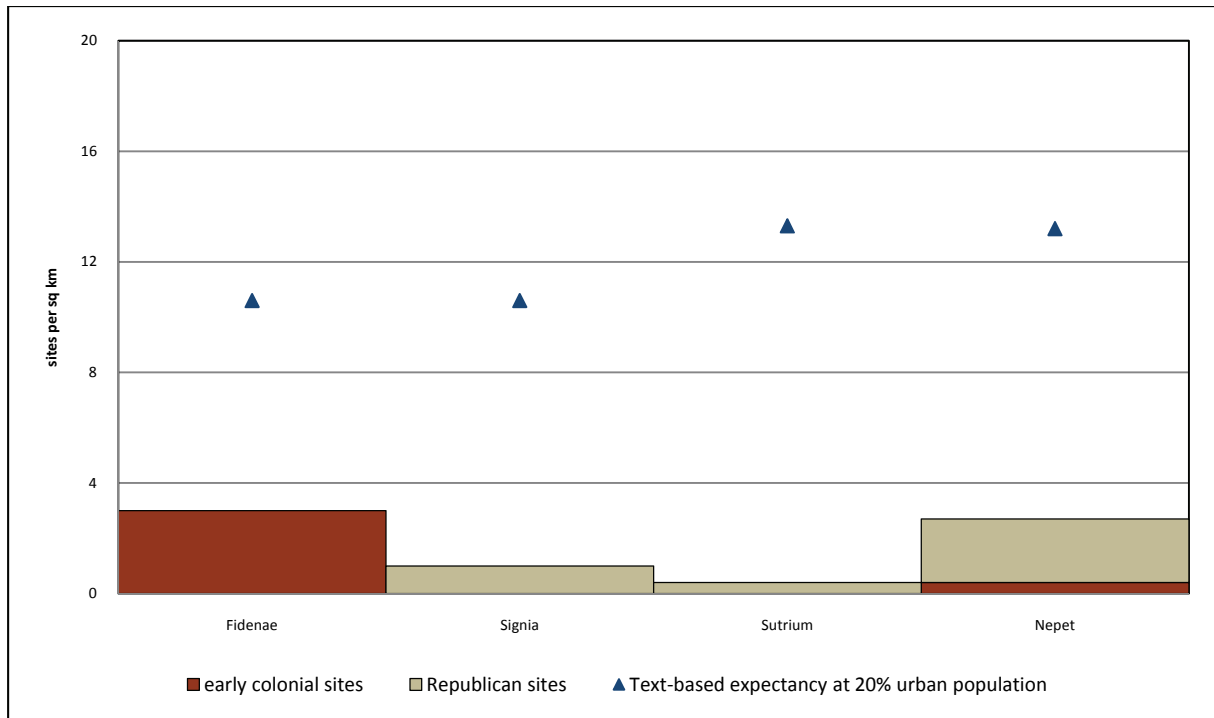
echelons of Roman society; the simpler structures have not been recognized during large-scale surveys and consequentially have not been excavated.²⁴⁶

No doubt, traditional archaeological surveys often miss the traces of ephemeral structures. Since the late-1970s, field archaeologists have acknowledged this methodological problem and have begun to develop new, more intensive survey techniques which should allow a more accurate reconstruction of ancient settlement history.²⁴⁷ The results of these recent approaches will be discussed below. Before reviewing these results, it is worth underlining that, if Rathbone's theory is correct, this implies a radical change from earlier conceptions of colonial landscapes. If indeed colonial farmsteads were so primitive as he suggests, they would have looked nothing like the impressive, monumental countryside depicted in Fig. 2, but they rather looked like Archaic landscapes which differed little from those of previous periods in terms of monumental appearance and are either similar to or even more primitive than most reconstructions of the settlement organization of the conquered indigenous communities.²⁴⁸ If the argument is indeed the instrument to explain the missing site problem, it is necessary to assume that this situation did not change radically during the entire Republican period since, as has been discussed above, even the inclusion of all recognized Republican sites still amounts to very low compatibility rates.

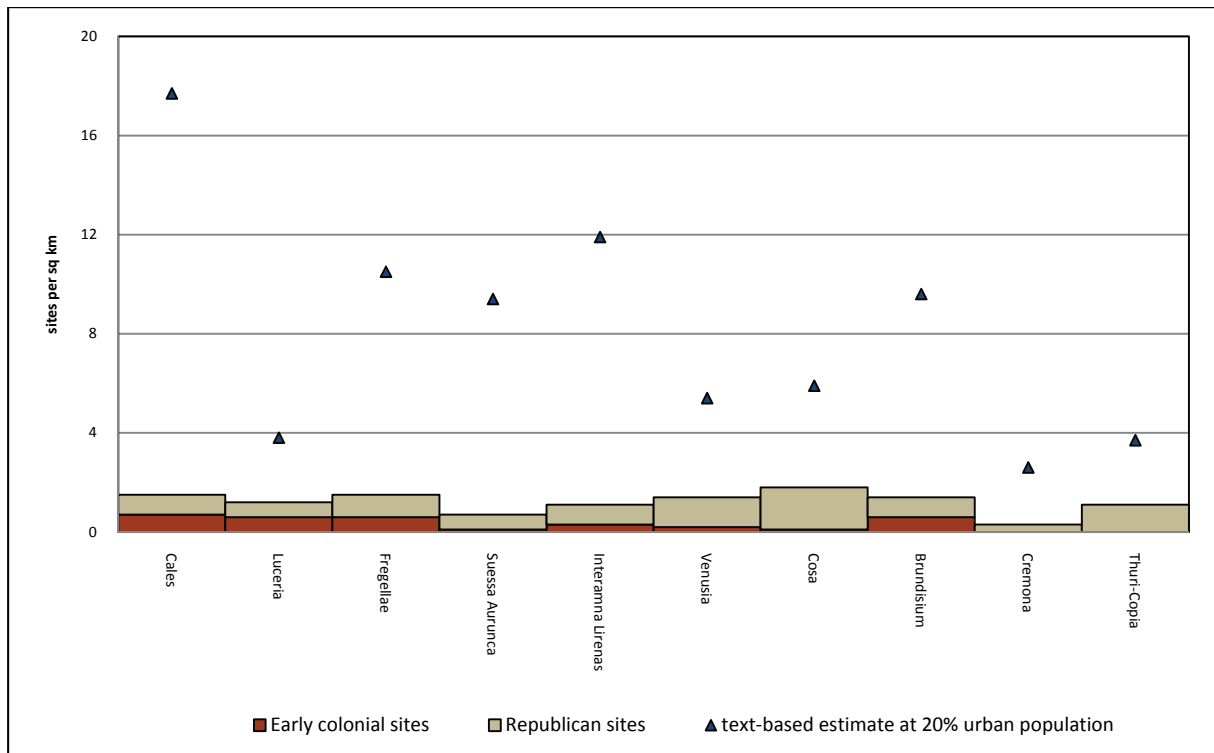
²⁴⁶ However, Postmedieval archaeologists have shown that supposed lower classes have better material access than is often expected and consequentially that they are recognizable in field surveys, especially those adopting more intensive sampling methods (Orser 2004).

²⁴⁷ The literature on this topic is immense. See for some recent influential publications Bintliff and Sbonias 1999; Bintliff, et al. 2007.

²⁴⁸ For example, excavated examples from fourth/third century farmsteads in the mountainous Samnite region cover more than 400 sq. metres, are solidly built and were covered by a tiled roof (Di Niro 1993).



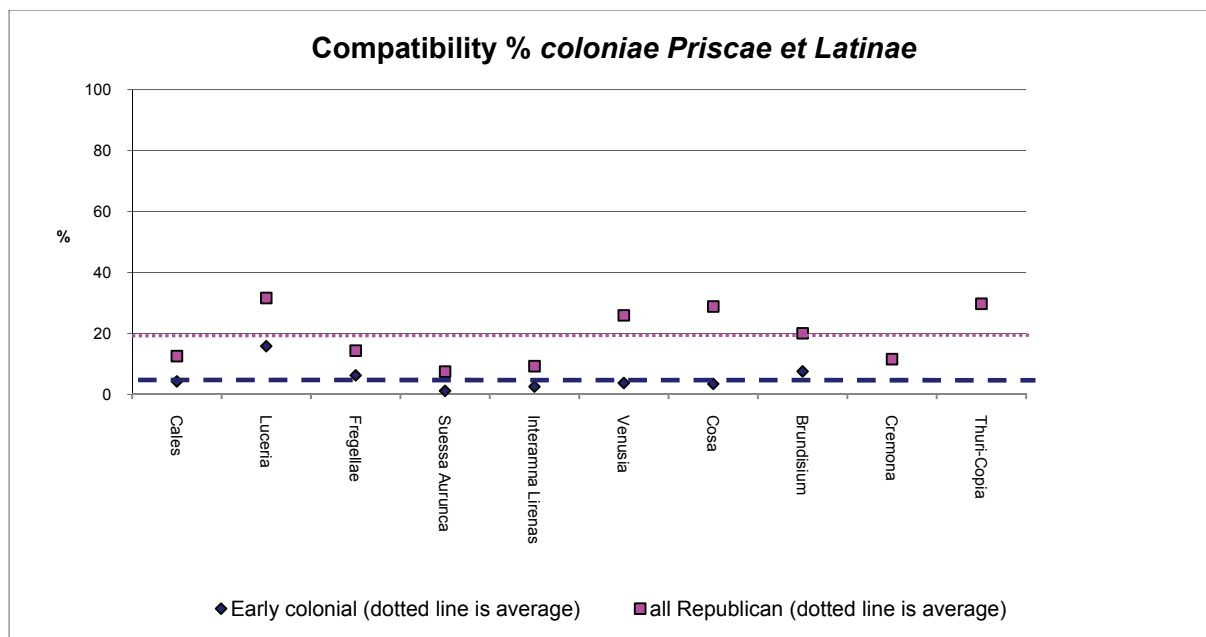
Graph 11: Site densities achieved in surveys of colonies founded before the Latin War.²⁴⁹



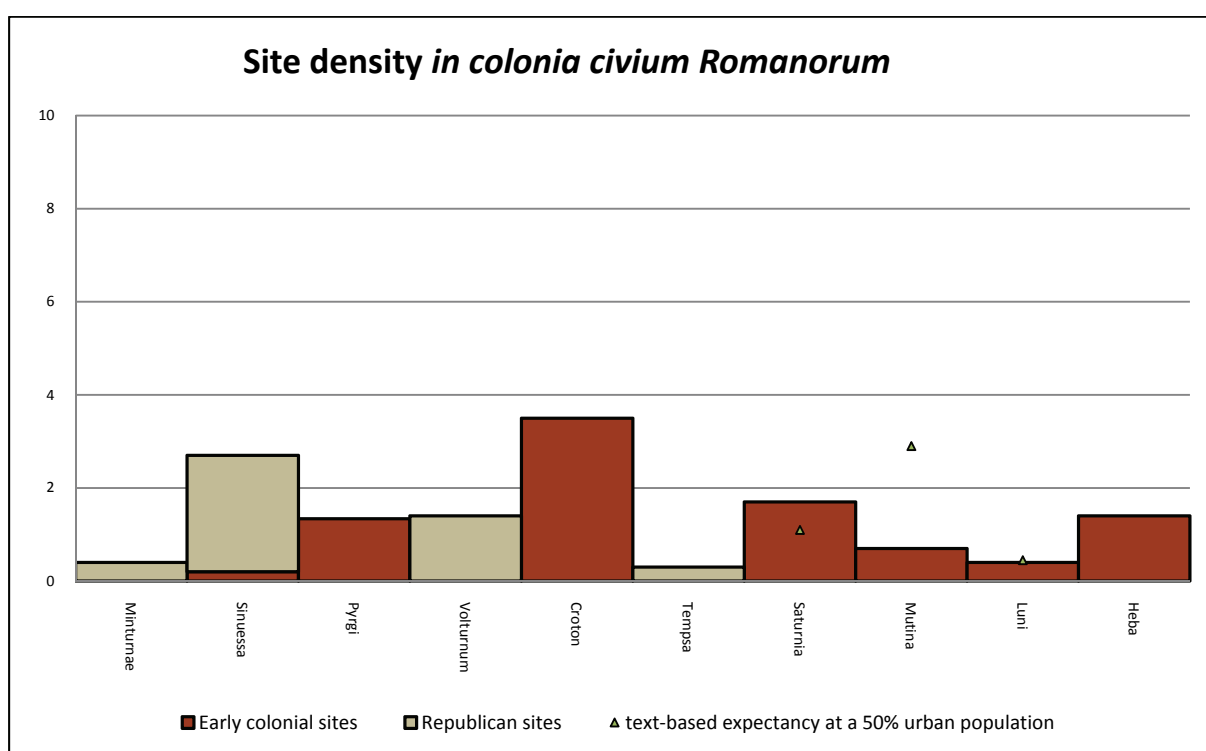
Graph 12: Site densities achieved in surveys of *Coloniae Latinae*.²⁵⁰

²⁴⁹ For densities see Appendix 1. For text-based expectancy see Graph 3. The expectancy is based on an urbanization rate of 20%. In the case of some of the earlier colonies, this might be on the low side, but in the case of later ones, it is probably too high (see main text).

²⁵⁰ For densities see Appendix 1. For text-based expectancy see Graph 3 (I have used the average of the various estimates). The expectancy is based on a 20% urban-based population. The dotted line indicates the average expected density of rural



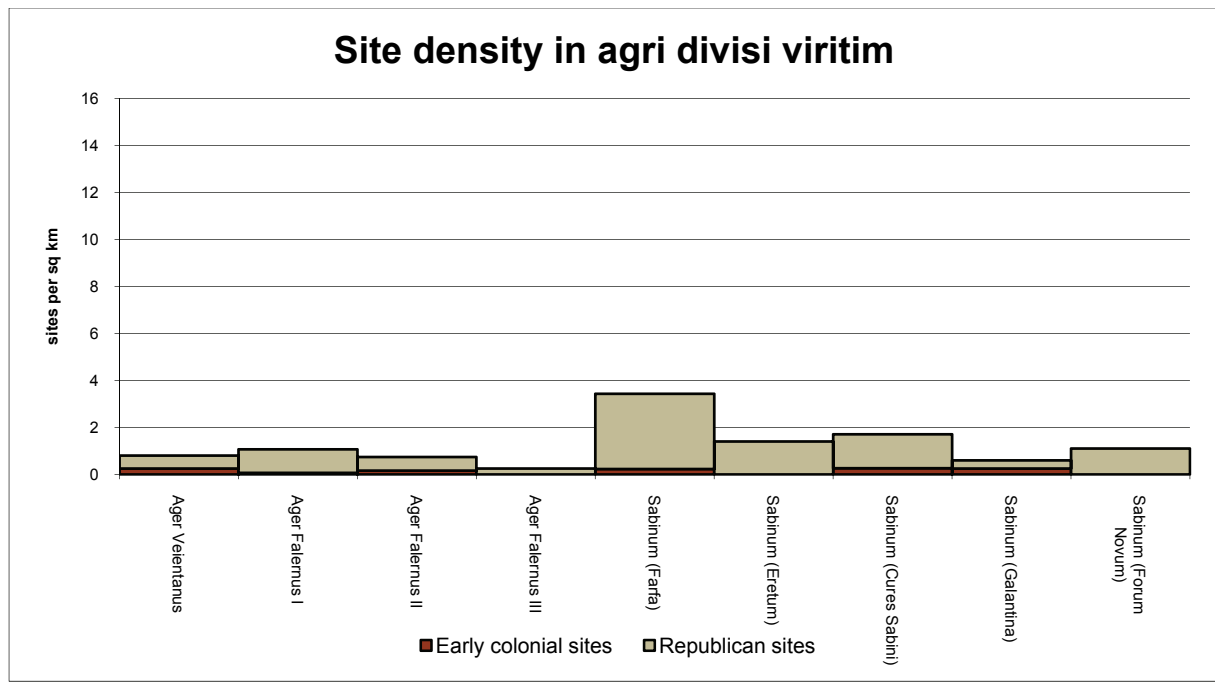
Graph 13: Compatibility % between text-based demographic estimates and the results from survey archaeology.



Graph 14: Site densities achieved in surveys of *Coloniae Civium Romanorum*.²⁵¹

colonial farms. In those cases in which more survey projects investigated different parts of a colonial territory, I have displayed the average achieved densities (excluding the results of topographic studies).

²⁵¹ For densities see Appendix 1. For text-based expectancy see Graph 7 (I have used the average of the various estimates). The expectancy is based on a 50% urban-based population. In the case of more survey projects investigating different parts of a colonial territory, I have displayed here the average achieved densities (excluding the results of topographic studies).



Graph 15: Site densities achieved in surveys in areas of viritane settlement.²⁵²

4.2. Methodological bias: the results from intensive off-site surveys

It did not take very long for survey archaeologists to realize that large-scale survey projects miss a considerable percentage of the smaller settlements and this recognition gave birth to a fruitful debate about how these difficulties can be overcome, which has continued ever since. One of the responses to the problem has been the development of a much more intensive field-sampling strategy.²⁵³ The most important break with the earlier traditions is the recording of visibility conditions and the use of an off-site sampling strategy which records all archaeological material encountered, using defined spatial units as reference. This time-consuming procedure has the merit of making it possible to define concentrations less subjectively. The artefact density maps which can be compiled on the basis of this recording strategy (preferably with a high resolution and corrected on visibility conditions) allow for the detection of ‘sites’ which would otherwise have been missed in the field.

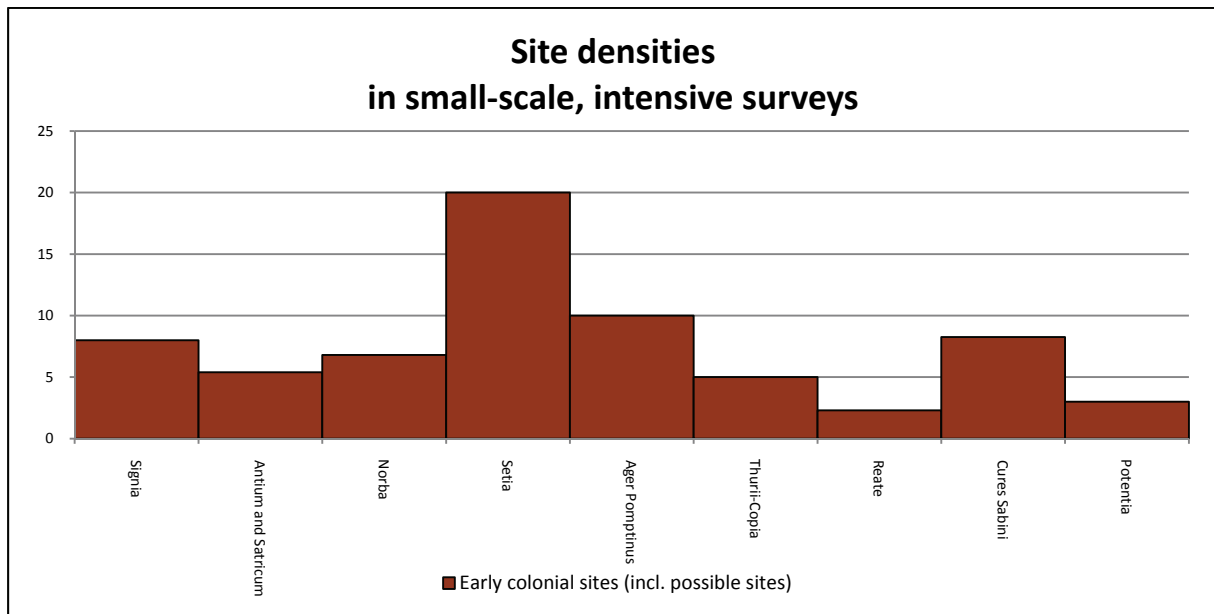
These projects have convincingly demonstrated that there is a positive correlation between the intensity of field surveys and the number of recovered sites.²⁵⁴ Possibly the best example in Italy is the study of Van Leusen, who compared site retrieval rate for several types of surveys carried out in the Pontine plain. His assessment shows that the small-scale, off-site surveys conducted by Groningen University resulted in site densities of up to ten times as dense as the early topographic *Forma Italiae*

²⁵² For densities see Appendix 1.

²⁵³ The majority of the early experiments with intensive field-survey strategies have been conducted in projects in Greece, e.g. Cherry 1983; Bintliff and Snodgrass 1985.

²⁵⁴ This was first demonstrated by Plog and his colleagues (Plog, et al. 1978) in several surveys conducted in the American south-west. Not much later, Cherry 1983 showed that there is a strong negative correlation between the size of the investigated areas in Greece and site retrieval rates.

Surveys.²⁵⁵ In fact, almost all colonial landscapes which have been investigated by means of an intensive off-site survey strategy have mapped much higher site densities than traditional large-scale surveys have (compare Graph 16 with Graphs 12, 14 and 15).



Graph 16: Site densities achieved in small-scale intensive surveys in colonial territories.²⁵⁶

At first sight, these statistics seem to corroborate Rathbone's hypothesis that the low number of recognized sites is the result of the incapability of traditional large-scale survey projects to record the traces of ephemeral settlements. However, closer inspection of these results reveals some important biases, especially in the sample areas chosen for investigation by intensive surveys, which nuance the differences in site retrieval rates achieved by the different survey strategies considerably.

Most intensive off-site surveys have concentrated on fertile areas at present under cultivation. The upshot is that the sizes of the sample areas are more or less equal to the amount of terrain which was actually covered by field walkers. In the traditional large-scale surveys, this has not generally been the case. Sample areas often include considerable tracts of non-arable terrain unsuitable to systematic field walking and which are usually explored very superficially, if at all. Therefore the territorial parameter used for establishing site densities in large-scale surveys differs fundamentally from that employed for small-scale, intensive surveys (e.g. whole territory versus surveyed arable land only).²⁵⁷

²⁵⁵ Van Leusen 2002, Chapter 4 esp. fig. 4.1. See also Attema and De Haas forthcoming for a study on site retrieval rates in the territory of Antium.

²⁵⁶ For densities see Appendix 2.

²⁵⁷ Since the expected colonial population densities per sq. km. are averages which result from middling probable low-density settlement areas and high settlements areas, surveys covering fertile arable areas only should be confronted with a higher expectancy of settlement.

Since it is often unclear what percentage of the sample area of traditional surveys is arable land which was actually field-walked, it is difficult to correct the survey results for this bias. One possible indication is provided by the Rieti Surveys, one of the few intensive off-site surveys which also included more mountainous marginal zones. The overall settlement densities mapped in this project are substantially lower than those achieved by the surveys carried out in the Pontine plain. This discrepancy is largely the outcome of the inclusion of marginal landscapes in the sample area. About half of the research area was located in higher, mountainous zones; here only a small percentage of the landscape could actually be field-walked and almost no traces of Republican settlement were recognized. In the lower lying areas, about half of the terrains were suitable to be surveyed. Here an overall density of six sites per sq. km was recorded. However, if the recognized sites are divided by the terrain which was actually field-walked, the resultant figure is twice as high.²⁵⁸ This density is comparable to that recorded in the other off-site surveys.

Possibly the best way to study the actual difference in site retrieval rates obtained by intensive and conventional surveys is to compare the site numbers which have been recorded in areas actually covered by both types of survey. This exercise is, for example, possible for the territories of Cures Sabini and Norba. The small-scale intensive surveys conducted in these territories recorded overall site densities that are a factor of 8 to 10 denser than those mapped during the previous large-scale *Forma Italiae* reconnaissance projects. However, the actual difference in retrieved site densities for the area which was actually covered by both survey projects is only a factor of 2 to 3 higher.²⁵⁹ In the territories of Satricum, Antium and northern part of the territory of Cures Sabini, resurveys resulted in less than a doubling of recovered sites.²⁶⁰

Interestingly, resurveys by Groningen University in the territories of Thurii-Copia and Norba, which used the more conventional 'site survey' method, resulted in site densities which approach those achieved by the intensive off-site surveys.²⁶¹ This demonstrates that there are considerable differences in quality of the survey records of the conventional 'site surveys'. At present, it is impossible to rule out the possibility that a doubling or even trebling of sites recovered by means of intensive resurvey can only be achieved in territories which have been investigated in the topographical tradition.

²⁵⁸ Coccia/ Mattingly 1992, 245.

²⁵⁹ For the Corese survey see di Giuseppe et al 2002, 109. About three times as many sites were recognized than the *Forma Italiae* survey of the 1970s had (Muzzioli 1980). During the Groningen resurvey of a small part of the territory Norba, in the so-called Ninfa survey (Leusen et al, 2003/2004, 304 fig 3.) 14 new sites were recognized in an area of less than a sq km, where Vittuci in the context of the *Forma Italiae* survey had mapped only 5 sites. (in van Leusen 2001, table 3a the difference is even smaller, here he gives 6 Republican sites discovered by Vittucci against 10 by the Ninfa survey.

²⁶⁰ During the Farfa Survey which also covered part of the Muzzioli Cures Sabini Survey 'a moderately higher number of sites' was recognized (Di Giuseppe et al 2002, 102). The so-called Astura Survey (Attema et al. 2007/2008, 431 and site catalogue) covered 1.55 sq. km. of terrain in the vicinity of the colony of Satricum. Here 4 new sites were recognized, where previous work had mapped 5 sites. See also Attema and De Haas forthcoming for a comparison between the results of earlier traditional surveys (Liboni and Piccarreta) and those from recent intensive surveys. Generally, a doubling of site numbers has been achieved by the intensive surveys. The survey in Thurii-Copia recognized twice the number of sites as the previous survey of Quilici had done (Attema et al. 2001/2002, 413).

²⁶¹ For Thurii-Copia see Van Leusen and Attema 2001-2002; for Norba: King 1995; Van Leusen, et al. 2003-2004.

Not all intensive off-site surveys conducted in the fertile areas of colonial landscapes have mapped high settlement densities. For example, the ‘Potenza Valley Survey Project’ recorded considerably lower site densities than those achieved by the Groningen University surveys. An overall density of little more than three Republican sites per sq. km. was mapped. If account is taken of the fact that this survey concentrated on specific areas favourable to settlement (alongside the coastal road and in the foothills), this density is fairly comparable with those retrieved during more traditional site surveys in Central Italy. A great variety of reasons might have contributed to this deviant pattern, ranging from differences in visibility, geomorphology and site definition criteria. Nevertheless, there is reason to believe that the disparity in retrieved site numbers reflects actual differences in settlement organization.

Those surveys which recorded high rural settlement densities are all located in two rather atypical Italian landscapes; both characterized by early urbanization processes and densely settled rural territories in the pre-Roman times.²⁶² This circumstance is demonstrated by the results from the Groningen surveys which clearly show that the dense networks of isolated settlement in both the Pontine region as well as that of the Greek *polis* of Thurii had begun well before the Roman colonization of these areas. Moreover, traditional site surveys conducted in these regions have also usually mapped much higher site densities than other comparable surveys in Italy.²⁶³ The clearest examples are the surveys carried out by Carter in the territories of the neighbouring Greek *poleis* of Metapontum and Croton.²⁶⁴ The site densities mapped in these landscapes are comparable to those retrieved by the intensive off-site surveys of Groningen University in the territory of Thurii. Similarly, traditional site surveys conducted in the old Latin city-states have also recorded higher site densities than in most other regions. Possibly the best example of this is the Fidenae survey, which mapped a density of more than three early colonial sites per sq. km.²⁶⁵

Finally, I want to draw attention to the differences in the way sites are defined by different survey projects. As discussed above, the important benefit of intensive small-scale survey projects is that the fainter traces of ancient human activity in the landscape can be recognized. However, the more detail is acquired, the more complex the interpretation of these traces becomes. Since other forms of human activity (e.g. fertilizing, rubbish disposal) and building (e.g. storage facilities, periodical habitations and the like) can also create ceramic scatters, not all ceramic concentrations can be interpreted as settlement residues. The logical consequence is that, while traditional surveys run the specific risk of missing the more marginal traces, their dots on the map are more likely to represent habitations (as they are often composed of more visible traces such as large quantities of stones and tiles and fine wares), while the archaeological maps produced from intensive survey represent more

²⁶² Torelli 1995, 1-17.

²⁶³ Another good example of this factor can be found in the Biferno Valley area. Overall site densities in this river valley were almost 3 sites per sq. km. (Barker 1995, 51). However, in the area around the town of Larino where two different large-scale surveys have been conducted (Barker 1995; De Felice 1994), site densities are almost twice as high.

²⁶⁴ A synthesis of the results of the survey of Metapontum in Carter 2006 (esp. Ch. 5); for Croton a synthesis in Carter 1990.

²⁶⁵ Quilici and Quilici Gigli 1986 (see Appendices 1 and 3).

differentiated landscapes which need to be analysed with more caution when used to calculate population densities. That such a distorting factor also applies to the Pontino Surveys is made clear in the publication of the survey around Norba which states that the vast majority of all Republican sites are classified as ‘Class 1’ sites, meaning the smallest type of site. These sites ‘should be interpreted as modest family farm structures built of perishable materials with a (partially) tiled roof, but other site types such as agricultural outbuildings, sheds or simple tombs might also be present in this class.’²⁶⁶

On the whole, the conclusion can be drawn that, although intensive off-site surveys indubitably record higher site densities than traditional surveys and have demonstrated the existence of densely settled Roman territories in Italy, problems arise when an attempt is made to extrapolate these results to larger regions; let alone to Roman colonial landscapes in general. The main problems with the current data-sets for the areas investigated in this manner are the rather small scale and above all the fact that the selected landscapes might not be representative for colonial territories in general.²⁶⁷ The strong biases of these surveys towards fertile zones and areas close to important roads, sanctuaries or cities undermine their overall representativeness.

4.3. Conceptual bias: the model of dispersed settlement

In Roman archaeology and history for some decades now, there has been a particular interest in the vicissitudes of the small rural farm, generally interpreted as the home of the Roman peasant. The motive behind this, of course, relates to the larger debates on Roman society and economy, most notably the rise of the slave-based villa economy and the consequent disappearance of the small proprietor (see Chapter 1). Hence, results from field survey have been mostly interpreted (and still are) in a bi-polar interpretative framework: either villa or small farm.²⁶⁸ Whereas the former is regarded as indicative of the economic processes of the concentration of property and a slave workforce, the latter is seen as evidence of the traditional peasant economy which was based on the family household. The village usually only appears in the narratives of the pre-Roman and Late Antique/ Early Medieval periods, which are characterized as periods of economic backwardness or decline.²⁶⁹ This scheme of Italian settlement evolution also complies with a more general paradigm in settlement archaeology and historical geography which associates dispersed settlement with dense populations, private smallholdings and a related intensive form of agriculture, whereas in contrast nucleation is believed to be linked to political instability, economic contraction, subsistence agriculture and elite control of the land.²⁷⁰

²⁶⁶ Van Leusen, et al. 2003-2004, 331.

²⁶⁷ On this also Fentress 2009, 129-131 and more generally on the problems concerning the representativeness of small-scale intensive surveys Fentress 1999; Terrenato 2004.

²⁶⁸ E.g. Potter 1979, 121 fig. 35; Ikeguchi 2006, 139-142.

²⁶⁹ A good example is again Potter’s diachronic study of South Etruria. His fig. 46, which shows the Medieval sites, is predominately dotted with villages, while none is displayed in the maps depicting the Roman phases. On the view which connects villages with pre-Roman forms of settlement see Chapter 4.

²⁷⁰ This view ultimately goes back to the historical geographer Meitzen (Meitzen 1895) who noted that a relationship existed between settlement systems and systems of land ownership. He believed that ethnicity (Germanic or Celtic origin) explained

Although several studies have questioned the classical paradigm of the disappearance of the traditional peasant economy in the Late Republic, its flourishing existence in the pre-Hannibalic period is generally accepted.²⁷¹ This view is based on evidence in the literary texts on the socio-economic emancipation of the lower classes which was achieved amongst other means by the distribution of land as private property in the fourth and third centuries and, of course, on the texts lamenting the disappearance of these peasants in the late Republican period. Although the generally accepted hypothesis of the conjunction of fragmentation and (re-)contraction of landed property might be correct, it is also possible to ask if this was necessarily accompanied by a process of dispersal and (re-)nucleation of settlement.²⁷² Fully scattered modes of settlement have been rare in Italian history and, when they have occurred, were usually connected with very intensive agricultural practices, population pressure and political stability.²⁷³ It is doubtful that colonial territories complied with these conditions. Probably there was more than enough land captured to cultivate, which was, however, located in a hostile environment, since it was surrounded by potential dangerous indigenous peoples. In a scenario of the absolute control of these territories and people by Rome, a scattered form of settlement would have been feasible; however, if it is assumed that the colonists themselves had to defend these places, such scattered landscapes lose some of their credibility.

This raises the question on what evidence this image of scattered colonial settlement is based. Perhaps the most important support for this view is found in the rigid land division systems which have been recognized in colonial landscapes and which seem to be supported by the literary information about colonial land distribution programmes. These will be discussed in Chapter 3. However, the archaeological field- survey data is also likely to have contributed to such an understanding. Archaeological maps of Republican Roman landscapes are generally densely dotted with symbols representing small sites, giving an impression of flourishing peasant landscapes (cf. Fig. 6). As I shall argue in Chapter 4, these maps are misleading since they often have a very coarse chronological resolution and, more importantly, visualize their data on a large scale, which naturally results in densely dotted landscapes. If the data is analysed in more narrow chronological horizons and on a smaller scale, the emptiness of these landscapes soon becomes apparent.

the differences in settlement systems in east and west Germany. On the relationship between rural productivity and settlement systems (especially the distance to cultivated land) see Chisholm 1979, esp. chapter 6. For a discussion within archaeology Athanassopoulos 2010 with further references.

²⁷¹ On see Chapter 1. The seminal paper is of Frederiksen 1970-1971. Very recent studies, however, have started to question this scenario and argue that peasants were tied to the elites and that tenancy and similar forms socio-economic organization may have dominated Republican Italy (eg. De Ligt 2000; Terrenato 2007).

²⁷² But see Chapter 3 for a more nuanced picture.

²⁷³ For settlement organization in the Medieval period see Wickham 2005, Chapter 8. According to conventional understanding, the predominantly nucleated settlement landscape of modern Central Italy developed during the Early Middle Ages and is known as the *incastellamento* process (Hubert 2002 with references). On the study of rural settlement organizations in general Bunce 1982 (see especially his chapter 4 on settlement evolution in colonial contexts). A good example of a failed attempt to seduce people into living dispersed on their holdings on a regular basis are the many abandoned rural houses in the province of Matera (South Italy), built in the first half of the previous century in an attempt to repopulate the countryside (on this King 1973). People soon abandoned these houses and returned to the villages.

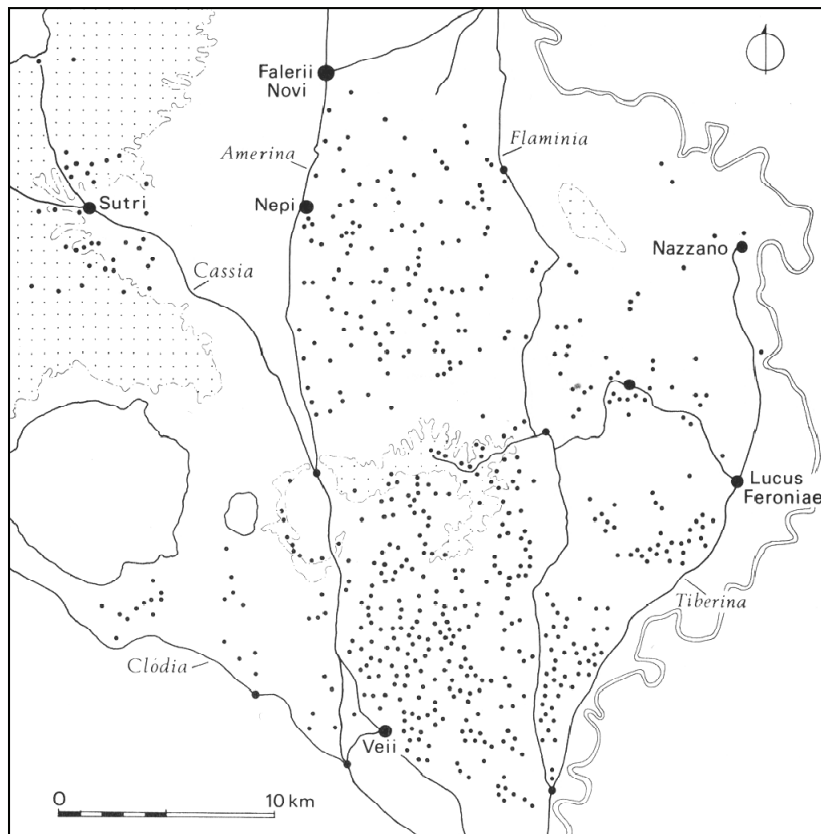


Fig. 6: South Etruria Survey: the Republican period. Black dots indicate the location of small farms (From Potter 1979, 97, Fig. 27).

Of course, this discrepancy does not undermine the fact that field surveys of Republican landscapes have predominantly recognized isolated small sites, although in low densities, and only a few nucleated settlements. These findings could have been biased by the interpretative framework described above, in which the complex archaeological reality is reduced to a simple villa-farm functional differentiation. As a matter of fact, the few field survey publications which have provided information about site-sizes suggest that, behind these uniform dots on the map, hides a more differentiated settlement landscape. This issue will be discussed in detail in Chapter 4. For the present, the question which needs to be answered most urgently is if the site-size factor offers a solution to the mismatch between the text-based demographic estimates and the results of archaeology.

In Table 12 I have described what densities of large settlements must be achieved in order to approach the historical demographic expectancy. These densities are comparable to the total site densities achieved in most surveys for the early colonial period (Graphs 12, 14 and 15). Consequently, in order for this factor to explain the missing site problem fully, it has to be assumed that the majority of the recognized sites represent hamlets and villages.

Table 12: Density of villages per sq. km. necessary to achieve text-based population estimates	
Number of colonists per site	Density of sites necessary to achieve a population density of 8 colonists per sq. km.
50	0.16
30	0.26
15	0.53
10	0.8
5	1.6
Combination: 1 large (50 fam.); 3 middle sized (15 fam.); 5 small (5 fam.).	0.6

But only in a few cases can this hypothesis be defended.²⁷⁴ The stumbling-block is that in most cases either information about site-sizes is absent or the inclusion of the site-size parameter only marginally affects compatibility rates. This is, for example, demonstrated by a calculation made by Cambi for the population of the *Ager Cosanus*. He includes site-sizes in his calculation, which results in a population considerably larger than one resulting from an estimation strategy which uses site numbers only (from 59 families to 72 households).²⁷⁵ Nevertheless, this is still only a fraction of the c. 2,000 rural families which could be expected to be found in this area on the basis of the literary record.

Moreover, using site-sizes for establishing population sizes is methodologically problematic. First, particularly large sites often have long occupational histories. Therefore, the sizes of such scatters are not necessarily indicative of the early colonial period. Second, long-term and intensive ploughing activity can turn small dense scatters into large diffuse ones. Detailed information about the relationship between artefact density (of particular periods) and scatter size is therefore necessary for substantiating functional interpretations of the sites in particular periods.

Because such information is not usually provided by survey publications, at the current state of research it is impossible to assess the impact that site-sizes have on our demographic reconstructions, and to establish whether they would offer a satisfactory explanation for the missing sites problem. In any case, I hope to have shown that the traditional conceptual framework which sees colonial peasant landscapes consisting of evenly scattered small settlements has strongly influenced the interpretation and representation of the archaeological data of this period. Indeed, in the few cases in which it is possible to see behind the dots on the map, much more varied settlement forms seem to emerge.

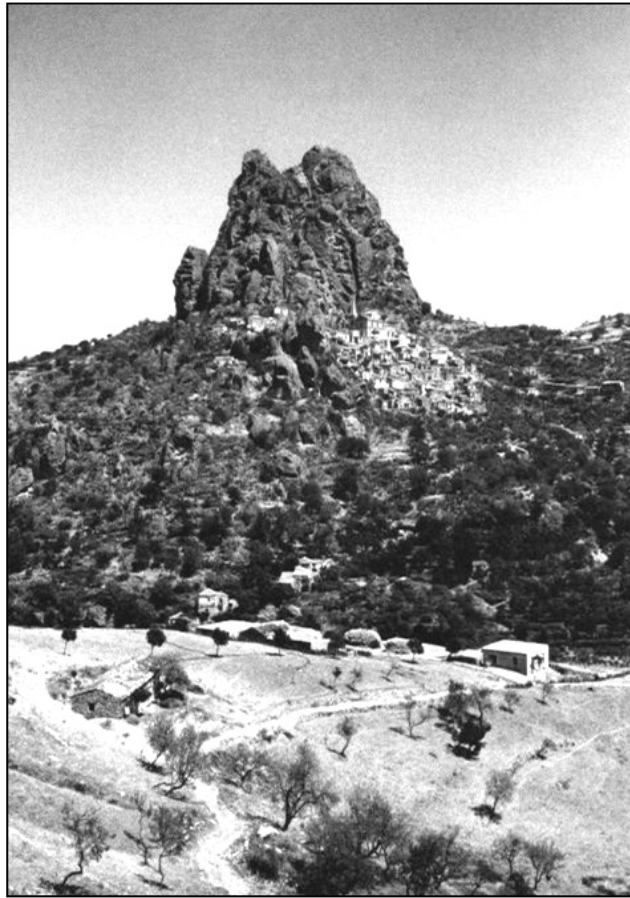
²⁷⁴ Possible examples are Luceria en Fidenae (see Appendix 1 and 3).

²⁷⁵ Cambi 1999, 116; Carandini, et al. 2002 All sites smaller than 900m² are considered single colonist dwelling (House 1); a site between the 900 and 4,000 sq. m. without evidence of complex architecture such as columns and mosaics is interpreted as a double family residence (House2). Scatters of 4,000 m² or more are considered to reflect the residues of villages with respectively 10 (if smaller than 10,000m²) and 20 colonists (if larger).

A related, potential biasing factor regards field survey strategies and their relation to specific settlement systems. Field-survey techniques (traditional or intensive off-site strategies alike) are particularly useful for investigating modern agricultural areas which are (or have been) under the plough.²⁷⁶ This means that they predominantly map settlement in fertile, arable zones. In those cases in which farmers lived on their land, as is predicted for colonial landscapes and is also characteristic of villas, this should give good results. However, if many people in Central Italy lived in villages which are often located in non-agricultural zones (mostly hilltops), as they do now, standard field surveys are likely to miss a substantial number of them (see Fig. 7 and 8).

²⁷⁶ Although in modern field surveys fields with low visibility are also often investigated and the find densities are corrected for visibility conditions, this is often limited to agricultural fields with low visibility because of vegetation cover. Non-agricultural areas, such as woodlands, are seldom investigated as field-survey methods (both intensive and extensive) are of little used there. For a recent attempt to use different prospection techniques to examine these landscapes see Van Leusen and Feiken 2007.

Fig.7: Examples of Apennine mountain villages (photos F. Monaco in: *Obiettivo sull'anima*, IT 13 (2002 Milano).



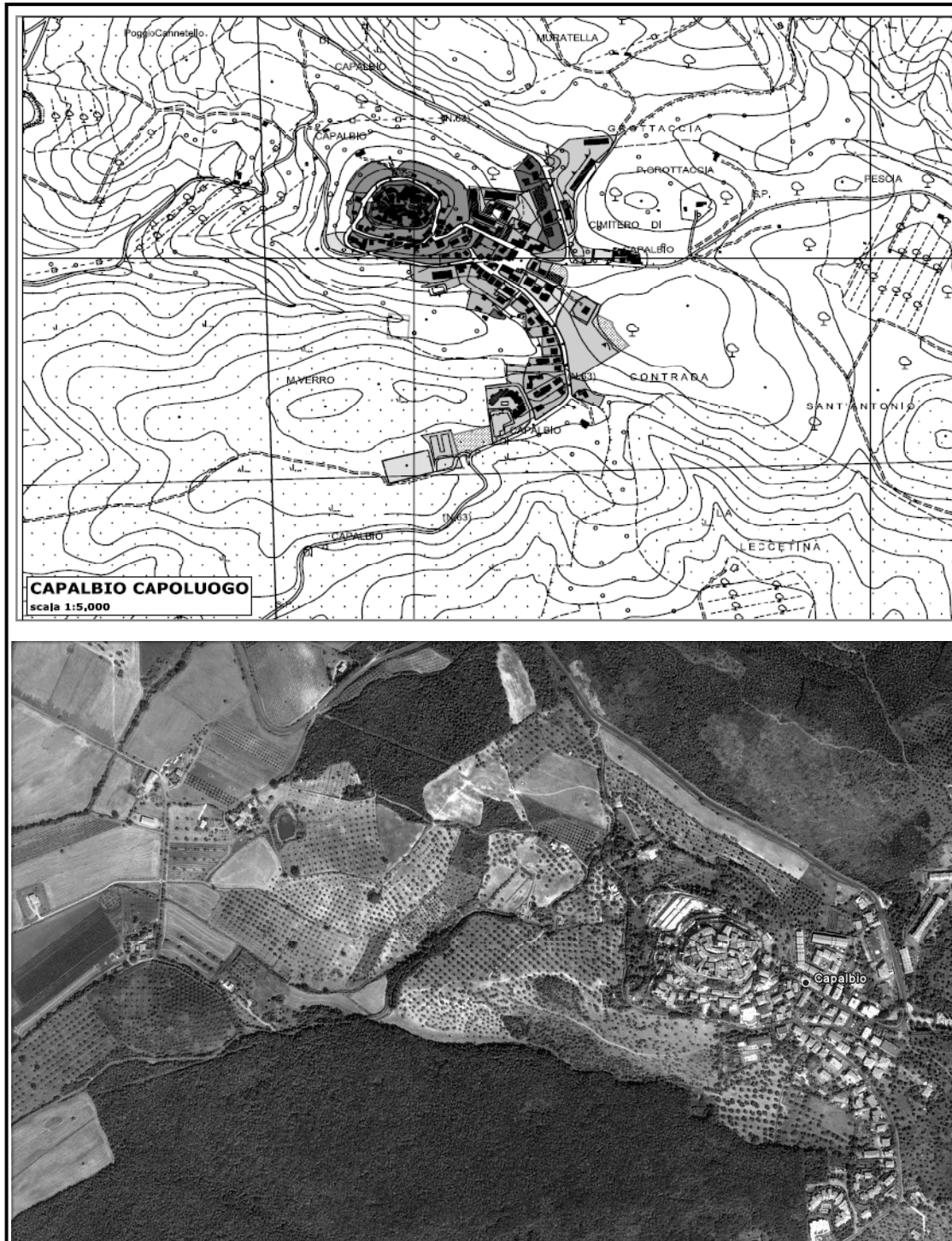


Fig. 8: Example of a typical Central- Italian hill-top village (Capalbio, Tuscany). The village is located c. 12 kilometres to the north-east of the ruins of the Latin colony of Cosa. Above (Piano strutturale Capalbio, from <http://www.comune.capalbio.gr.it>). In brown: the size of the village before the 18th century; in red: the extension of the village in the eighteenth century; green, yellow and purple: modern extensions. Below (Google earth image): the lands surrounding the village are used for oleoculture and woodland. The arable fields (best suitable for field surveys) are located c. 1 kilometre to the west of the village). The ancient centre of the village measures c. 5.5. hectares; with modern extensions c. 15 hectares. Nowadays, 622 people live in Capalbio (average of c. 3 persons per house).

4.4. Drawing up the balance

The confrontation between the text-based demographic estimates and the results of large-scale field surveys in colonial territories has clearly demonstrated that there is a huge discrepancy between these two data-sets which cannot be resolved by assuming that most colonial farmers had an urban base. Trying to find an answer to the question of why the archaeological landscapes are so empty, I have investigated two possible solutions.

The first possible explanation assumes that large-scale surveys have missed most colonial dwellings because they were ephemeral structures whose remains are not easily recognized in traditional archaeological surveys. In other words, in this scenario the conventional view of colonial settlement organization as consisting predominantly of regularly scattered farmsteads can be maintained by blaming archaeological method. The other solution is that we have been looking for the wrong model of colonial settlement organisation. As has been made clear, a combination of conceptual biases and related practical matters (such as survey strategies) has led archaeologists to overemphasize the presence of scattered mono-nuclear farmsteads in their data-set and to marginalize nucleated forms of settlements..

In Chapter 4 I shall argue that, on closer inspection, the archaeological record for the early colonial period indeed suggests that a clustered pattern of settlement prevailed in most early colonial landscapes. Combined with a deconstruction of the presumed existence of rigid land division systems in the pre-Punic War period offered in the following chapter, these results strongly suggest that the conceptual framework which sees colonial landscapes as evenly settled landscapes of mono-nuclear farmsteads must be wrong. Once this expectation is set aside, it becomes possible to recognize more varied settlement landscapes in published reports. More importantly, it is an invitation to start looking for nucleated settlements in future research projects. At this stage it is impossible to know if such an approach will bridge the gap between the archaeological evidence and the text-based demographic estimates, but it is in any case likely that it will bring both data-sets closer to each other.

Chapter 3.

DIVIDED LANDSCAPES?

1. Introduction

In the previous chapter it was pointed out that survey archaeologists have not detected the densely settled colonial territories implied by the text-based demographic estimates. As a potential explanation of this discrepancy, I pointed out the possibility that the conceptual framework which sees colonial territories as regularly settled peasant landscapes might have biased the interpretation of the archaeological record of these landscapes. If the *idée fixe* that colonial territories were inhabited by people in isolated farmsteads located at regular distances from each other is set aside, it is possible to recognize other patterns of settlement which reduce the gap between population estimates which are based on the literary sources and the results from archaeological field surveys. However, this conclusion is not tenable unless the evidence on which the conventional model of colonial territorial organization is based is examined and an attempt is made to assess if the model is a valid touchstone by which the archaeological data can be tested.

No doubt, the assumption that colonial landscapes were settled regularly by mono-nuclear farmsteads is rooted in the reports about the distribution of equally sized allotments to Roman colonists. The existence of *agri diuisi et adsignati* is firmly attested to in late-Republican and Imperial times, and in the *Corpus Agrimensorum Romanorum* it is possible to find detailed descriptions of how these landscapes were created.²⁷⁷ Although comparable information is lacking for the mid-Republican period, two important pieces of evidence are often used to corroborate its existence in this period: 1) references in the sources which state that land was distributed in equal parts; 2) archaeological traces of land division programmes. These data are the theme of this chapter.

The discussion will commence with the evidence from the literary sources. Reports about the handing out of equally sized allotments to colonists have contributed strongly to the view that Roman Republican colonial territories were more or less egalitarian landscapes which differed markedly from the situation in the homeland of the colonists where the lower classes suffered severely from aristocratic exploitation and where social mobility was virtually impossible. Surprisingly, only a few of these literary references to allotment sizes actually indicate the existence of autarchic peasant landscapes. Only those allotments handed out to settlers in the Latin colonies which were founded after the Second Punic War and to the participants in a few *viridiane* colonization programmes would

²⁷⁷ See Campbell 2000, 278-316; Chouquer and Favory 2001, 169-175.

have been substantial enough to sustain a colonial family (even though in the latter case the allotments were at the absolute required minimum). Judging from the allotment sizes recorded for the period *before* the Second Punic War and those distributed to colonists of citizen colonies, the area of land colonists were assigned was too small to support a family. If the reports are genuine, this must imply those colonists had additional sources of income. Conventionally, it is supposed that either these reports are corrupt or that colonists had access to public lands to supplement their income. From this point of view, colonies can still be considered more or less egalitarian peasant communities. In Sections 2 and 3, I shall discuss these theories and delve more deeply into what extent the literary evidence justifies the idea that colonial landscapes were (semi-)egalitarian peasant communities.

In the second part of this chapter, the traces of land division systems which have been identified in former colonial landscapes will be reviewed. Detailed study of aerial photographs in the area around most colonies has revealed stripes at regular intervals in the landscape. These are generally interpreted as evidence of land division. Since the existence of equally divided landscapes in the pre-Punic War period cannot be inferred from either survey archaeology or from the literary evidence, their supposed existence depends heavily on this data-set. The problem with these traces is that, since land division systems were created at various periods of Roman history, they are notoriously difficult to date. From the Gracchan period onwards there are detailed descriptions in the *Corpus Agrimensorum Romanorum* about where, when, and how land was divided; in contrast, evidence for the pre-Gracchan period is sparse and vague. In this chapter, the arguments which have been used to demonstrate that this practice began in the period before the Second Punic War will be investigated and analysed.

Table 13: Land distribution and allotment size according to the literary tradition							
Year B.C.	Place	Type	Nr. recipients	Size of allotments in iugera	Reference	Size of Ager divisus et adsignatus	Density of allotments per km.2
Regal	-	Virittane	<i>each citizen</i>	2	E.g. Varro RR 1.10.2		200
504	River Anio	Virittane	5,000 Sabine families	2 (<i>plethra</i>)	Plutarch <i>Publ.</i> 21		
418	Labici	Colony	1,500 <i>coloni ab urbe</i>	2	Livy IV,47	7.5 km.2	200
395	Volscan frontier	Colony	3,000 Roman citizens	3 7/12	Livy V, 24	27 km.2	112
393	Veii	Virittane	each plebeian	7	Livy V, 30	-	57
389	Veii	Virittane	-	4 or 28 <i>plethra</i>	Diod XIV, 102, 4	-	286 or 41
385	Satricum	Colony	2,000 Roman citizens	2.5	Livy VI,15	12.5 km.2	160
383	Ager Pomptinus	Virittane	plebeians	-	Livy VI, 21	-	-
339	Ager Latinus	Virittane	plebeians	2+ ¾	Livy VIII,11	-	145
339	Ager Falernus	Virittane	plebeians	3	Livy VIII,11	-	113
329	Anxur	Maritime colony	300	2	Livy VIII,21	1.5 km.2	200
290	Sabinum	Virittane	-	7	e.g. Val Max IV, 3,5; Columella 1 <i>praef</i> 14	-	57
232	Ager Gallicus and Picenum	Virittane	Roman citizens	-	e.g. Polyb 2.21	-	-
201	Samnium and Apulia	Virittane	veterans	2 for each year of service	Livy XXXI,4 and 49	-	-
193	Copia	Latin colony	3,000 (ped.) 300 (equi.)	20 (ped.); 40 (eq.)	Livy XXXV,9	180 km.2	20 (ped.) 10 (eq.)
192	Vibo Valentia	Latin colony	3,700 (ped.) 300(eq.)	15 (ped.); 30 (eq.)	Livy XXXV,40	161 km.2	27 (ped.) 13 (eq.)
189	Bononia	Latin colony	3,000	50 (ped.) 70 (eq.)	Livy XXXVII,57	390 km.2	8 (ped.) 6 (eq.)
184	Potentia	Roman colony	-	6	Livy XXXIX,44	30 km.2	67
184	Pisaurum	Roman colony	-	6	Livy XXXIX,44	30 km.2	67
183	Mutina	Roman colony	2,000	5	Livy XXXIX,55	25 km.2	80
183	Parma	Roman colony	2,000	8	Livy XXXIX,55	40 km.2	50
183	Saturnia	Roman colony	-	10	Livy XXXIX,55	50 km.2	40
181	Aquileia	Latin colony	3,000+	50 (ped.); 100 (cent); 140 (eq.)	Livy XL,33	375+ km.2	8 (ped.) 4 (cent.) 3 (eq.)
181	Graviscæ	Roman colony	-	5	Livy XL,29	25 km.2	80
177	Luna	Roman colony	2000	51.5 or 6.5	Livy XLI,13	258 km.2	8
173	Ager Gallicus	Virittane	Roman citizens and allies	10; 3 for allies	Livy XLII,4	-	40 113 (al)

2. Problems with the early references to distribution of small allotments

*Two iugera form a heredium, from the fact that this amount was said to have been first allotted to each citizen by Romulus, as the amount which could be transmitted by will.*²⁷⁸

In the literary tradition, several references can be found to the allocation of small plots of land to Roman citizens (see Table 13). As the passage in Varro shows, this tradition, at least from the late Republican period and thereafter, was believed to have begun with Romulus himself. In the narratives of Livy and Dionysius, several such land distribution programmes are actually recorded. In the early Republican period at least twenty-five different proposals were made to divide recently conquered land among the plebs; most failed in the face of the opposition raised by the patricians who preferred to keep the land under public ownership, which meant that *de facto* they could exploit it.²⁷⁹ Despite their objections, some proposals do seem to have been successful; the most famous of which was the division of *Ager Veientanus* for which Livy records that each plebeian, not only the head of family but children too, received 7 *iugera* of land. Others are: the *Ager Pomptinus*; the *Ager Latinus* (2 *iugera*) supplemented with $\frac{3}{4}$ *iugerum* in the territory of Privernum; the *Ager Falernus* (3 *iugera*). Similar small allotments are also reported to have been distributed to colonists: Labici (2 *iugera*), an unnamed colony on the Volscian frontier (3 $\frac{7}{12}$ *iugera*) and Satricum (2.5 *iugera*).²⁸⁰

Most ancient historians and archaeologists consider the historicity of these early allocations dubious. Their first objection is that the whole socio-political context in which these land distribution programmes are placed by Livy and Dionysius, namely the struggles between the orders and the issue of land distributions to the poor, is highly reminiscent of the situation in the Gracchan period.²⁸¹ For example, when describing the land distribution carried out in the territory of Veii, Livy states that land was given not only to heads of families but to all children too; this in the hope that men might be willing to bring up children. This assertion is very like the rhetoric used to legitimize the Gracchan land reforms, and might have been anachronistic.²⁸²

Another problem is the size of the holdings distributed. The *heredium* of two *iugera* as the basic unit of virginate distribution, allegedly established by Romulus, seems particularly suspicious and it has been argued that it might well be a pseudo-historical reconstruction on the basis of the fact that

²⁷⁸ Varro *Rust.* 1.10.2. See also Pliny *NH* 18.7.

²⁷⁹ See Cornell 1995, 270 and Hinrichs 1974, 9 for an overview.

²⁸⁰ See Table 13 for references.

²⁸¹ Eg. Càssola 1988.

²⁸² Especially App. *BCiv* 7-11. See, however, Patterson 2006, 195-198, for the view that, although Livy made use of Gracchan analogies, this does not imply that the narratives are fictitious anticipations of Gracchan proposals. Especially the absence in these stories about land division of the central theme of the Gracchan reforms, namely the introduction or maintenance of 500 *iugera* as an upper limit for holdings of *ager publicus*, in his view, seriously undermines this sceptical position. Moreover, the fact that the plans for land divisions coincide with periods of Roman military success and territorial expansion give these agrarian proposals a plausible historical context. For counter-arguments see Smith 2006, 239-240.

one *centuria* consisted of 100 plots of 2 *iugera*.²⁸³ The nub of the problem is that there is a general consensus that the crops which could be grown on such small plots could not have kept a peasant family alive.²⁸⁴ Nevertheless, the fact they are considered too small to sustain a family does not imply they are fictitious. Although 2 *iugera* is often given as a basic unit of allotment (for example, Labici, Ager Latinus, Anxur) which could indeed be explained as an anachronistic reconstruction, this line of argument does not explain the three-quarters of a *iugerum* distributed in the *Ager Privernus*, the 2.5 in Satricum and especially the 3 7/12 *iugera* distributed amongst the colonists sent to the Volscian frontier. Interestingly, 3 7/12 *iugera* (= 0.904 hectare) corresponds almost exactly to 12 *uorsus* (= 0.907 hectare), which suggests that Livy or his source translated original allotment sizes which were measured in the ancient Italic measurement unit of the *uorsus* into *iugera* (see also below for a more detailed discussion of the use of the *uorsus* in ancient land division schemes). If correct, this is an argument in favour of the reliability of these references to allotment size.

If these references to the small size of the allotments distributed do contain a grain of historical truth, how can they be explained? The issue is closely related to the Roman socio-economic organization in this period. Roughly, three different views have been defended in the modern scholarly debate. According to an old tradition, Roman society in this period was basically still a tribal one, in which the bulk of the land was the property of the *gentes* and was worked collectively by their clients.²⁸⁵ In this scenario, the small size of the allotments distributed is explicable as a first, and very limited, step towards the privatization of land and consequentially the emancipation of the lower classes; the small size guaranteed that Roman farmers continued to be dependent on the *gens*.

The existence of so-called *ager gentilicius* which was worked collectively in the mid-Republican period has been strongly questioned and most scholars think this system was abolished in the Early Republic (if it existed at all).²⁸⁶ Among scholars of Roman agrarian history, there is now a strong consensus that during the Republic, at the latest after the promulgation of the *lex Licinia* of 367, Rome was a society of independent smallholders who had enough private land to feed their families. This view is based mainly on legal evidence (especially the Twelve Tables), which suggests that private property was known in this period. In contrast, there is very little in these sources to support a model of collective, tribal-based ownership.²⁸⁷

²⁸³ E.g. Gabba 1984, 20. But see Gabba 1985, 266 for the possibility that the reference in Livy to 2 *iugera* plots of land distributed among the colonists in Anxur is genuine. Salmon 1969, 22 accepts that 2 *iugera* was the basic unit of land distribution in Roman territory.

²⁸⁴ Generally, between 5 and 10 *iugera* is considered the minimum needed to sustain a family. On this see, for example, Salmon 1969, 72 n. 110, Galsterer 1976, 47 with further references. The famous, but controversial speeches of Sextius and Licinius (Livy 6.36) support this view. They clearly stated that the small size of the plebeian holdings (2 *iugera*) was not enough to live on and would eventually incur debts.

²⁸⁵ For good recent discussions of this view see Smith 2006, 236-250 (with further references).

²⁸⁶ Roselaar 2010, 20-31, for a detailed critical discussion of the phenomenon (with further references). See, however, Terrenato 2007, who argues that clan structures, especially in the rural domain, remained important throughout the whole Middle Republic. He challenges the orthodox paradigm which sees a radical socio-political transformation in the Early Republic from *Gemeinschaft* (communal) to *Gesellschaft* (individual).

²⁸⁷ See Roselaar 2010, 20-31.

In fact, the small allotments distributed to colonists sit rather uneasily with this understanding of the Roman economy. In the framework of the argument which explains the rise of the peasant economy, colonization and land distribution play a crucial role: they were what made it possible for the lower classes to begin a life free of aristocratic control. However, the fact that the holdings distributed were too small to sustain a family raises questions about the truly independent existence of the recipients and challenges the model of the autarchic soldier-farmer. The most commonly accepted solution to this problem is found in the public lands. In contrast to what proponents of the 'gentile' economy advocate, this land might have been exploited individually, through the instrument of *occupatio*.²⁸⁸ The reason distributed plots (private property) were kept small was to stop colonists qualifying for membership of a higher censorial class which would have upset the arrangement of the Centuriate Assembly at Rome.²⁸⁹

This interpretation of Roman socio-economics, the use of the *ager publicus* in particular, is not without problems. According to an obscure passage in Cassius Hemina, plebeians could not occupy public lands.²⁹⁰ Moreover, the literary tradition makes it very clear that the purpose of agrarian laws was to change this custom of patrician control of conquered lands. Although it could be argued that these passages are corrupt or that they only describe an anomalous situation which is not necessarily true for all *ager publicus*, it remains difficult to explain why plebeians displayed such an urgent desire for land division programmes, if they could occupy common lands as easily as the patricians. Even if there was no official restriction on the exploitation of public lands by plebeians, it is clear that in reality plebeians had a very weak position and were often not able to exploit these lands successfully. For example, Livy (4.51.5-6) reports on the confiscated territory of the small community of Bola which the Senate did not want to divide among the plebeians in 416. This was perceived as a grave injustice because the unoccupied territory (*agrum vacuum*) would soon become like all the rest, the booty of a few. This passage suggests that occupation of public land was regulated according to a principle of the survival of the fittest; the fittest, of course, were those who wielded economic and socio-political power.²⁹¹

Recently, a third scenario has been proposed which also questions the independent citizen farmer versus gentile collective dichotomy. In a recent article, De Ligt has postulated that some form

²⁸⁸ E.g. Cornell 1995, 269; Roselaar 2010, 20-31. Other solutions are to dismiss the recorded size of holdings as corrupt (discussed above) or, as Rathbone 2008, 307 n. 9, has most recently suggested that recipients, in his view veterans, received the recorded amount of land as booty in addition to their existing farms. This practice is known from later times. Scipio gave all his veterans 2 *iugera* for each year of service (Livy 31.4 and 31.49). However, there is little evidence in the sources which suggests that veterans were the principal beneficiaries of land distribution programmes in this early period. The sources clearly connect land division with social unrest in the city.

²⁸⁹ Salmon 1969, 72.

²⁹⁰ Cass. Hem. F17P *ap. Non. P.* 217L. *quicumque propter plebitatem agro publico eiecti sunt* (All those who were evicted from public land because of their plebeian status). Cassius Hemina probably wrote his text before the Gracchan Crisis. Livy also strongly suggests that plebeians had problems in obtaining access to public lands. See Smith 2006, 240-250 for arguments against the view that plebeians could occupy public land. Another argument against the use of common lands by farmers to supplement their meagre income is raised by Rathbone 2003. His argument is that there was not much undivided arable land left which could be exploited by these farmers. Against this position see Roselaar 2008, 574-583.

²⁹¹ Recent archaeological discoveries, especially in what is known as the Auditorium villa, strongly support the view that the Roman rural landscape was dominated by members of the elite (Terrenato 2001; Carandini, et al. 2007).

of tenancy already existed in the early and mid-Republican periods.²⁹² On the basis of indications in the Twelve Tables, he argues that, contrary to the conventional opinion, a legal framework for tenancy had already existed from the fifth century at least. This in combination with ‘the fact tenancy of one kind or another has been important in virtually all pre-industrial societies makes it at least highly probable that tenants were widespread long before the final decades of the second century.’ The argument is attractive since it offers an elegant explanation for the distribution of small allotments; one which does not conflict with the suggestion made in the sources that the lower classes were not able to exploit the public grounds successfully. Therefore it does not necessitate a controversial model of communal ownership and exploitation of land by private *gentes*.²⁹³

Small allotments must have been an attractive proposition to Roman tenants since they provided an opportunity to build a house; a place of their own which was free from aristocratic control and potential exploitation.²⁹⁴ The small allotments gave them limited control over themselves and their fate, but still ensured that they remained dependent on large landowners and other employers to supplement their meagre revenues. Such a system guaranteed the elite access to a pool of temporary labour, which allowed them to keep the permanent (slave) labour force of their estates small.²⁹⁵ In fact, the proposed scenario offers an attractive intermediate phase between the full dependency of the *nexi* and the total independency of the autarchic soldier-citizen. In the course of time, some farmers are likely to have acquired more land through marriage and inheritance, possibly even in additional land distribution programmes, which helped to diminish their dependency on the landed gentry. Others, especially younger sons, had little or no landed property and were fully dependent on the elite estates for their income. Naturally, they fought for new division programmes which would improve their socio-economic position.

The model of partial dependency runs into difficulty when applied to colonial distributions. Besides its egalitarian quality, the essence of a colony is often thought to have been the self-sufficient character of the farms of the colonists. The theory that the members of the colonial community were dependent on Roman landed aristocrats does not tally with such an idea. However, there is good reason to question the supposed autarchic nature of the colonies for which the handing out of these small allotments is reported.

The theory that early Roman colonies were independent new communities is based on two arguments: their location in alien territory far from Rome and the idea that colonization before the Latin War was a co-operative enterprise of the Latin League which, as a mixed community of Roman

²⁹² De Ligt 2000.

²⁹³ See Rosenstein 2004, 181-182 for an argument against De Ligt’s thesis. For a response see De Ligt 2007.

²⁹⁴ In the antiquarian writings it is stated that the *heredium* was passed on to holders’ heirs and could not be alienated (Cf. Plin. *NH* 19.19.50). If true, this apparent restriction on selling or other form of change of ownership guaranteed the holder protection against total dependence on aristocrats (such as was the case with the *nexi*); the land, and thereby also its owner, was permanently protected against aristocratic control. In the context of the social reforms which tried to abolish the debt-bondage system (*lex Poetelia Papiria*), such a provision makes good sense.

²⁹⁵ On the problems with maintaining large permanent slave workforces see: Garnsey 1980; Skydsgaard 1980; Rathbone 1981; Jongman 2003.

and Latin settlers, symbolized the bond between the various members of the League and formed a new independent community which was tied to the Latin cause through membership of the Latin League. In reality, the colonies for which the small allotments are recorded are located close to Rome, and are unlikely to have been foundations of the Latin League. Livy, for example, never suggests that these colonies were founded by the Latin League. In fact, he makes it very clear that he believes the colonies to be Roman foundations.²⁹⁶ Cornell, who accepts the Livian tradition in this regard, states it is even questionable whether these settlements became truly self-governing communities.²⁹⁷ Land bordering the *Ager Romanus* 'may have been annexed and assigned *uiritim* to Roman citizens who were not formed into a new community but remained citizens and were administered directly from Rome'.²⁹⁸ As an example of such a procedure he points out the colony sent to Labici which was located close to Rome and was founded to forestall agrarian agitation.²⁹⁹ Other examples of colonies located close to Rome which were founded in response to controversies about land in Rome are Satricum and that founded near the Volscian frontier (the only other two instances in which small allotment size is reported).³⁰⁰ On the grounds of the evidence, there is little reason to suspect a very different socio-economic system at work in these colonial areas from the one which has been proposed for the viritane areas.

In short, the references in the sources to the distribution of small allotments in colonial and viritane land division programmes cannot simply be discarded as late Republican historiographic inventions. Leaving aside the fact that their different and peculiar size is difficult to explain in this way, they make sense in the socio-economic context of the period in which Roman farmers fought for emancipation. The problem of whether or not Roman society was still basically a tribal one is difficult to resolve with the evidence currently available. Nevertheless, it does seem clear that, despite the social reforms, Roman society continued to be dominated by elites on whom the lower classes continued to depend in varying degrees, either as tenants or as clients. Therefore, the small allotments given to Roman citizens who settled on newly conquered land are best considered an important, but still very limited step towards the true emancipation of the plebs. The *coloniae civium Romanorum* were no exception; the small allotments fit perfectly into this picture of a society dominated by an elite group whose members reluctantly, indeed only after serious danger of social unrest, relinquished a small piece of their absolute power.

²⁹⁶ Cf. discussion in Section 2.4. Livy often uses the term *coloniae Romanae* for these colonies; and refers to the settlers as *cives Romani* (see Salmon 1969, 171 n. 53 for references).

²⁹⁷ Cornell 1995, 302. See also Oakley 1997, 341-344 on the subject. This is, for example, also illustrated by the fact that in the *triumviri* are all Roman magistrates.

²⁹⁸ Cornell 1995, 302.

²⁹⁹ Livy 4.47.

³⁰⁰ Livy 6.16; 5.24.

3. Explaining the gap: land distribution between the Latin War and Dentatus

Between the Latin War and the conquests of Dentatus in the early third century, remarkably few references to the size of distributed allotments, either virgane or colonial exist, even though this is the period in which most colonies were founded. In fact, only one reference has been transmitted: the 2 *iugera* distributed to the 300 colonists in the maritime colony of Terracina.³⁰¹ The size is similar to that of the preceding period and it could therefore be assumed that a similar socio- economic system was at work. What is particularly surprising is that no information at all about Latin colonies has been transmitted, although there is plenty of information about the number of settlers.

The conventional view is that Latin colonists received larger allotments than the colonists sent to Roman colonies and those who participated in virgane land distribution programmes. This conclusion is based on the situation after the Second Punic War for which there is a marked difference in the size of allotments handed out in Roman colonies and those in Latin ones; the latter was generally three times as large (see Table 13). Likewise, it is assumed that a differentiation was made between allotments distributed to *equites* and those to *pedites*, with the former receiving allotments twice as large. Since after the Second Punic War, an obvious increase in the size of allotments distributed over time (from 15 to 50 *iugera*) can be observed, it is suggested that allotments distributed in the pre-Hannibalic period were smaller than those distributed later, but larger than those distributed before the Latin War; therefore between 7 and 15 *iugera*.³⁰² This reconstruction of Latin colonial rural organization is based on the conviction that the model for Latin colonization was established immediately after the Latin War, and did not alter much in the 150 years it functioned.³⁰³ However, as I shall argue below, there are good reasons for suspecting that such a static view is incorrect and that the practice of Latin colonization did change substantially during this period. In the light of a possible change in Latin colonial practice, the absence of references to the size of the allotments distributed to Latin colonists in late fourth/ early third century colonies assumes greater importance.

A first fragile clue can be found in the lemma of Festus (276L) which explains the term *priscae coloniae Latinae*. In this category, conventional understanding recognizes the old Latin colonies founded before the Latin War,³⁰⁴ but the passage is not at all clear about which group of old Latin colonies is intended, and consequently it is possible that Festus, or the source he used, was referring to another moment of institutional change.³⁰⁵ The only clue provided by the text is that they were called *priscae* to distinguish them from the newer foundations which were established by the

³⁰¹ Livy 8.21.

³⁰² For such reasoning Carandini, et al. 2002, 122-123.

³⁰³ E.g. Gargola 1995, 51.

³⁰⁴ Salmon 1953, 94-97.

³⁰⁵ Wiegel 1983, 194-195. Also Bispham 2006, 132 n. 61. As I have discussed in the introduction to this book, he sees (with Crawford 1995) an important moment of colonial institutional change at the beginning of the second century. In his view the passage could just as well refer to the Latin colonies founded before the second century.

populus.³⁰⁶ According to the traditional interpretation of the text, this should be understood to refer to the Latin colonies established by the *populus Romanus* as opposed to those founded by the Latin League.³⁰⁷ However, the text only gives *populus* and therefore it seems more plausible that it refers to a change in the policy regarding the body which decreed the founding of colonies. From this perspective, the ‘new’ colonies were those which were established by the people rather than by the Senate.³⁰⁸ In fact, the only recorded instances of Latin colonies whose foundation was prescribed by a plebiscite date to the early second century.³⁰⁹ In 194, the *tribunus plebis*, Q. Aelius Tubero, issued a plebiscite by order of the Senate (*tribunus plebis ex senatus consulto tulit ad plebem, plebesque scivit*) for the foundation of two Latin colonies: one in Bruttian territory (Vibo Valentia) and the other in the territory of Thurii (Copia).³¹⁰ Interestingly, these two Latin colonies are the first for which information is provided about the sizes of the allotments distributed. Before and after that time, the only body reported to have decreed the foundation of Latin colonies was the Senate.³¹¹ However, earlier references exist for plebiscites ordering the foundation of *coloniae civium Romanorum* and viritane land division schemes. The earliest dates to the third century.³¹²

That something might have changed in Roman colonial policies is further supported by the well-known change in policy about the size and location of citizen colonies, which increased from 300 to 2,000 settlers after 184 and were no longer situated only on the coast.³¹³ This change is often explained as the result of serious recruitment problems for Latin colonies after the Second Punic War.³¹⁴ The heavy casualties suffered during the war resulted in less pressure on land and hence less motivation for migration to distant and potentially dangerous lands. It is also assumed that Roman citizenship was cherished more greatly in this period, since being a Roman meant having better access to the enormous riches acquired by imperial success of Rome. In order to guarantee enough Roman settlers would migrate to colonies near the frontiers of Roman Italy, Rome changed its colonial policy and allowed some inland colonial communities to retain their Roman citizenship (the so-called citizen colonies of the agrarian type) or very large allotments were granted to tempt Latin colonists.

³⁰⁶ *Priscae Latinae coloniae appellatae sunt, ut distinguerent a novis, quae postea a populo dabantur.*

³⁰⁷ This interpretation is made less plausible by the doubts which have been raised against the presumed co-operative colonization scheme of the Latin League, discussed previously.

³⁰⁸ Cf. Wiegel 1983, 195.

³⁰⁹ See Laffi 1988 for a good overview and discussion of the relevant passages.

³¹⁰ Livy 34.53.

³¹¹ Laffi 1988. See Gargola 1995, 53 who accepts the view that the sequence of senatorial decree and plebiscite was standard practice.

³¹² The relevant examples are the viritane distribution scheme (232) of Flaminius (Cic. *Inv. rhet.* II. 52) and the foundation of the five citizen colonies (of the maritime type) in 197 (Livy 32.29). In 296, the first plebiscite in a colonial context is recorded (Livy 10.21). However, the law decreed who were to be the triumviri, not the foundation of the colony proper. Laffi states that these reports (and that regarding the two Latin colonies), might be (post) Gracchan corruptions. Nonetheless, the fact that they post-date the Lex Hortensia lends them at least some credibility. Wiegel 1983, who accepts these reports, postulates that the change in policy must have taken place in the late fourth century (just before 311). This theory is based on circumstantial evidence, namely the fact that in 313 for the first time the consul elected the *triumviri* instead of the Senate (Livy 9.28) and that in 311 the tribal assembly was given the power to elect military tribunes and *duumviri navales* (9.30).

³¹³ See Salmon 1969, 95-109.

³¹⁴ Salmon 1969, 100, 103. See also Mouritsen 2008, 478-480.

There is reason to believe that in earlier times some attempts were also made to make Latin colonization more attractive. After the conquest of Sabinum and the defeat of Pyrrhus by Dentatus, Rome acquired an enormous amount of territory which was used for virgane distributions in various phases (first by Dentatus and later by Flaminius). This availability of land within the *Ager Romanus* might have made Latin colonization (and the consequent loss of Roman citizenship) less attractive and this situation might have prompted Rome to change its colonial policies.³¹⁵ A possible clue to this assumption comes from an obscure passage in Cicero *Pro Caecina* 102, recalling some special rights twelve colonies, including Ariminum, held.³¹⁶ Although the precise meaning of the passage is debated, the general conviction is that the twelve colonies mentioned had a juridical status different from that of other Latin colonies which at least regulated that they had the right to inherit property from Roman citizens, just as the members of Roman communities.³¹⁷ If Salmon is correct in identifying the twelve colonies with the last twelve colonies of the Latin type, beginning with Ariminum, the institutional change can be dated in 268, not much later than the probable date of the large-scale virgane land division programmes of Dentatus.³¹⁸

Although radical institutional change in the third or early second centuries is still debatable (as none of the arguments is conclusive), there is still a good possibility that the remarkable change in the reporting of Latin colonial allotment sizes in the early second century might reflect a genuine change in Roman colonial practice. The argument that Livy, or the source he used, was not interested in this kind of information or simply forgot to mention it, then becomes less convincing, especially since Livy in all other cases (earlier and later) where the number of colonists is specified he also provides the size of the allotments distributed.

³¹⁵ The literary traditions report several plebeian secessions, probably related to land problems in the same period. On this see Forni 1953.

³¹⁶ *Nam ad hanc quidem causam nihil hoc pertinuisse primum ex eo intellegi potest quod vos <ea> de re iudicare non debetis; deinde quod Sulla ipse ita tulit de civitate ut non sustulerit horum nexa atque hereditates. Iubet enim eodem iure esse quo fuerint Ariminenses; quos quis ignorat duodecim coloniarum fuisse et a civibus Romanis hereditates capere potuisse?* 'The law {of Sulla} decrees that they are to have the same rights as the people of Ariminum, which, as everybody knows, was one of the Twelve Colonies and had the right to inherit under the wills of Roman citizens.'

³¹⁷ E.g. Salmon 1969, 92-94. In an earlier article Salmon 1936, 58-61 had argued instead that Ariminum was the last in the group of twelve colonies which remained loyal to Rome in 209. For the theory that the last twelve Latin colonies had an inferior status to those founded previously see Mommsen *St. R.* iii, 623 ff. See for a discussion of this passage also Sherwin-White 1973², 102-104; Bispham 2006, 89 and 134 n. 87 for references. Recently Antonelli 2006 has argued that the twelve colonies refer to Sullan foundations. This thesis has some attractive aspects (especially that it is chronologically closer to the time of Cicero). However, the foundation of a colony in Ariminum by Sulla is not certain and it remains unclear why the people of Ariminum in 82, hence after the passing of the *leges Iulia* and *Plautia-Papiria*, required special rights which allowed them *a civibus Romanis hereditates capere*. See also the *Commentationum Epigraphicum Volumen*, 233f for the view that the twelve colonies mentioned refer to the twelve colonies founded by Drusus Livius in 122 (Plut. *C. Gracch.* 9). Usually the foundation of a late Republican colony at Ariminum is attributed to either Augustus or Antony, thus after Cicero's speech (e.g. Keppie 1983, 15, 20, 67).

³¹⁸ Salmon 1969, 92-94. Salmon argues that the scanty evidence points towards some sort of reformulation of Latin rights which made them closer to those of Roman citizens, especially regarding inheritance rights. The reason behind this change should perhaps be sought in attempts to make Latin colonization more attractive; it softened the negative aspects of losing Roman citizenship. Another possibility mentioned by Salmon is that Latin status was defined more as that of the *cives sine suffragio*; a status which never seems to have been granted again after 268.

The theory which argues that there was a change in the way Rome regulated Latin colonization raises the question of how Latin colonization was organized before that time.³¹⁹ To find an answer to this question, it is necessary to go back to the early colonial practices discussed in the previous section. There it was argued that the distribution of small-sized holdings on Roman territory is best understood as a very limited protective measure which guaranteed that simple farmers had some land of their own, but did not make them totally independent. The small allotments also ensured that enough land remained open for patrician exploitation and thereby avoided disturbing the socio-economic balance in Rome.

In the case of colonists who went to non-Roman territory other considerations are likely to have been more important. Why should Rome have regulated the exploitation of these lands? Given the remote location of these colonies, direct control from Rome was difficult. It is hard to believe that Rome had a firm grip on these conquered territories. It is far more likely that colonization was a means to ensure some sort of durable control of these areas. Colonists, possibly under the guidance of the *triumviri*, were probably personally responsible for the exploitation and defence of the newly conquered fields.

In situations where enough land was available for cultivation, there would have been little reason to have set a fixed size for colonial holdings. Foxhall has convincingly demonstrated that a farmer without additional labour or large financial resources would be able to cultivate a relatively small area of no larger than 15 to 20 *iugera*.³²⁰ Only individuals capable of mobilizing large workforces would have been able to exploit larger holdings. It is dubious if enough of these people participated in the colonial enterprise from the beginning to make it necessary to take protective measures in the form of establishing maximum allotment sizes. Colonization without state-organized land division projects would therefore have resulted in an agricultural landscape in which most farmers had holdings of roughly the same size. However, these holdings would not necessarily have been placed alongside each other in a geometrical grid. This sort of organizational principle fits much better into archaeological record which suggests that colonial farmers adapted to the natural properties

³¹⁹ The very little literary information available is vague about early Latin colonial organization. One possible clue is Polybius' list of available manpower. It records the available manpower of the *Latini* and distinguishes between *pedites* and *equites*. The analogy with the situation after the Second Punic War when the sources clearly record that a distinction was made in the size of allotments handed out to *pedites* and *equites*. However, the similarity in terminology might be misleading. In Polybius' list the manpower of the allies available is also divided into the same two categories, even though it is clear that very different socio-economic realities hide behind them. In this context it is notable that the ratio between *pedites* and *equites* among the Latins in Polybius' list is very different from that of the later post-Hannibalic colonies (resp. 1:16 and 1:10; that of the Etruscans falls in between the two). The fact that the Polybius' figure of the men capable of bearing arms is in the same order of size as the number of colonists who migrated to these colonies (cf. Chapter 2) suggests most colonists succeeded in achieving a level of income or social position which allowed them to qualify for service. Since it is not clear what amount of land served as a threshold for military service in this period this does not allow much headway in clearing up what their actual socio-economic position was and if they were indeed the independent soldier-farmers most models want them to be. It is even possible to argue that the lower number of Latins in Polybius' list compared to the information in Livy reflects the fact that not all colonists succeeded in acquiring enough land and property to qualify.

³²⁰ Foxhall 2003.

of the landscape.³²¹ In fact, such a system closely resembles the so-called *ager occupatorius*, described by Sicculus Flaccus in a much later period:³²²

‘Land described as ‘occupied’, which some call *arcifinalis*, {these ought to be called *arcifinales*} is land to which a victorious people has given the name by occupying it. For after wars had been fought, the victorious people confiscated all lands from which they had expelled the conquered, and generally gave the name territory to themselves, with the intention that there should be a right of jurisdiction within their confines. Then, whatever land a man occupied through his skills in cultivation, he called *arcifinalis* from the action of keeping off {arcere} neighbours. There is no bronze record, no maps of these lands which could provide any officially recognized proof for landholders, since each of them acquired a quantity of land not by virtue of any survey, but simply whatever he cultivated or occupied with the intention of cultivating. Some did indeed make private maps of their holdings {...} However, these lands are demarcated by boundary stones, and trees which have been marked {...}.

To conclude, on the basis of the literary information in so far as any exists, it cannot be convincingly demonstrated that Rome decided how large Latin colonial allotments had to be, let alone that they created neatly organized, egalitarian landscapes. Therefore the possibility that colonial landscapes in this period were more like those Sicculus Flaccus describes for the *ager occupatorius*: relatively unorganized landscapes in which every farmer marked the area he could or hoped to cultivate with stones or carved trees, should be considered. On Roman territory, Rome felt the need to restrict the amount of land which could be acquired this way, probably to avoid disrupting the existing socio-economic order. In Latin colonies, such problems were non-existent and no formal limits on the size of holdings needed to be established by the Senate. For some reason, this changed in the course of the third or early second century. A tentative suggestion is that this might have been connected to either the different socio-juridical status of Latin colonists in this period, a desire on the part of Rome to control the amount of land which was being cultivated by Latin colonists,³²³ or to an attempt to give colonists a firmer title on their land.

³²¹ Cf. Chapter 4.

³²² ed. Campbell 2000, 105.

³²³ If the theory of Salmon that the *duodecim coloniae* mentioned by Cicero refer to the last twelve Latin colonies founded by Rome is accepted, a reason for commencing (after 268) to regulate the amount of land Latins received could be that this land could now be inherited by Roman citizens and hence affect the socio-economic balance at Rome.

4. The evidence of division lines

The image of colonial territories as geometrically divided landscapes, in which holdings were separated from each other by an impressive network of division lines is based mainly on the descriptions and drawings contained in the *Corpus Agrimensorum Romanorum*. These treatises state that the standard unit of Roman land division was the *centuria*, a square area with sides of 2,400 feet long (20 *actus*). It enclosed an area of 200 *iugera* which corresponds to 100 *heredia*, the basic unit of Roman land distribution. The fact that some allocations of land in 2 *iugera* plots are recorded especially in early Roman history (cf. previous section) might be interpreted to indicate that the practice of centuriation originated in that period. This impression is supported by the writings of the Roman land surveyors which claim that land division in square blocks was a very ancient practice which originated in the religious context of Etruscan augural rituals.³²⁴ On closer inspection, it transpires that the literary tradition is not very convincing. The theory of the Etruscan origin, for example, is very dubious and is widely regarded as a historiographical invention of the late Republican period.³²⁵ The same is probably true of its supposed introduction into Rome during the Regal Period. Now detailed study of aerial photographs has indeed revealed traces of possible land division systems in areas where the sources say land was distributed in early Roman history. However, owing to serious dating problems, this vast amount of new evidence has not yet resulted in a consensus about the origin and development of Roman land division techniques.

4.1. A rough outline of the debate

One of the first synthetic studies of archaic Roman land division lines recognized on aerial photographs and cadastral maps is Castagnoli's article '*I più antichi esempi conservati di divisioni agrarie romane*'.³²⁶ On the basis of the evidence available at the time, Castagnoli concluded that two different systems of land division were used in the early history of Roman expansion. In his view the beautifully preserved centuriation grid observed in the territory of Terracina, founded as a maritime colony in 329, demonstrates that, in agreement with Varro's claim, land division into 200 *iugera* blocks was a very ancient practice. However, a different system has been recognized in territories of Latin colonies, which has been characterized as a system of parallel lines only.³²⁷ Evidence for the antiquity of this particular technique is found in the fact that the Greeks already used such a system of division in the Archaic period: the most famous example known from Italy is Metapontum.³²⁸

Castagnoli thought that the simultaneous existence of two different systems of land division might be connected to the differences in status between Latin colonists and those settlers who were

³²⁴ Frontinus C 8. 23-29, Hyginus 2 C 134. 1-14.

³²⁵ E.g. Hinrichs 1974, 50-52, Chouquer and Favory 2001, 164-169 with further references.

³²⁶ Castagnoli 1953/ 1955.

³²⁷ The early examples discussed are: Cales, Luceria, Alba Fucens and Cosa (discussed in detail in the next sections).

³²⁸ Carter 2006, 95-96 with further references.

sent out to maritime colonies and areas of viritate settlement. The latter retained their Roman citizenship and the size of their allotments influenced their position in the socio-political organization of Rome. Allotments were therefore kept small, often only 2 *iugera* (see above). In his view, land division in *centuriae* is the most practical for such an allocation and also reflected the militarist egalitarian character of these settlements. The situation in Latin colonies was different. The size of their allotments did not affect Roman politics, and from later examples it is known that the size of allotments distributed differed from colony to colony. In fact even within a colony distinctions were made between various social classes. These differences logically also affected the intervals between division lines and hence explain the recorded variety.

This elegant model has been amended by Hinrichs, who has refuted the existence of centuriation in this early period.³²⁹ Basing himself mainly on a detailed study of the writings of the *agrimensores*, he argued that a specific form of land division called *per strigas et scamna* was predominant in all landscapes which had been divided in early Roman history.³³⁰ This technique, he states, divides landscapes into strips, rather than blocks, which are called *strigae* when orientated lengthwise and *scamna* when orientated breadthwise.³³¹ Contrary to what Castagnoli had claimed, this specific form of land division was not limited to Latin colonies, but also characterized territories of viritate settlement. In the cases of Reate and Venafrum, Hinrichs argues that traces of such land division systems can still be recognized on cadastral maps of the territories. His theory is that this rather unsophisticated method of division originated in the pre-Roman period, but was improved considerably by the Romans, who gradually made it more regular. The process of refinement ended after the Second Punic War with the establishment of the orthogonal 20x20 *actus* grid, which remained the standard for Roman land division from that time onwards.³³²

In a paper in the 1980s, Castagnoli responded by presenting new evidence for early land division into rectangular units recognized in the Pontine plain and in the territory of Cures Sabini, which are both dated to the late fourth and early third century.³³³ Interestingly, these orthogonal grids are not based on a 20x20 *actus* module, but on 10 x10 *actus* (the technical term is *laterculus*), which Castagnoli claims must be considered the original module of Roman land division. He also countered Hinrichs' thesis that the breaking up of strips of land divided *viritim* is still recognizable on cadastral maps of Reate and Venafrum, by pointing to eighteenth-century maps on which the putative division lines are missing. This seriously challenges the supposedly Roman origin of these lines.³³⁴

³²⁹ Hinrichs 1974, 49-58.

³³⁰ View based on Frontin. esp. C 1. 5-12.

³³¹ This specific form of non-orthogonal division could be used to subdivide *centuriae*, or rectangles delimited by *limites*, in which case they are called *strigatio/scamnatio* in *centuriatio*, or could be used to subdivide a territory which was divided by parallel lines only, often called *limitatio*, only of *decumani*.

³³² Hinrichs 1974, 56-57.

³³³ Castagnoli 1984.

³³⁴ Castagnoli 1984. Castagnoli also refutes Hinrichs' claim that the antiquity of these lines is corroborated by the presence of ancient walls by arguing that these are clearly modern structures.

Nevertheless, Hinrichs' theory soon found new support in a monumental study by Chouquer, Clavel-Lévêque, Favory and Vallat, entitled *Structures Agraires en Italie Centro-Méridionale* which investigated all aerial photographs and cadastral maps of Campania and Latium for traces of Roman land division systems.³³⁵ This team of French scholars identified more than twenty systems of *strigatio/ scamnatio* of which the majority is connected with viridate land division programmes of the late fourth and early third centuries. They also presented a possible solution to the complex case of Terracina. They argued that the centuriation grid in this area was created during a late Republican *renormatio* (new division of a territory which had been divided earlier)³³⁶ of an earlier system which consisted of parallel lines only. In their view, the older system has the same orientation as the later orthogonal grid and is therefore difficult to recognize (cf. below).

This mass of new evidence did not end the debate. The Italian School responded forcefully, its principal tactic was the questioning of the methodology used by the French scholars. A prominent representative of this critical approach is Lorenzo Quilici. In his recent overview of all the evidence for early land division in Italy, the findings of Chouquer, Clavel-Lévêque, Favory and Vallat are not included because their applied methodology is dismissed as absolutely inadequate and consequently their results as unconvincing.³³⁷ The main problems are the scale of the maps they used for their research, often 1:150.000 or 1: 250.000, which is considered too rough and too imprecise, and the fact that they did not investigate the more recent agrarian history of the area, which leaves the possibility that the lines recognized are in fact modern constructions. Finally, the uncritical use of the *corpus agrimensores*, which is considered a very problematic source, is considered to undermine the credibility of their historical interpretations and connected dating of recognized grids.

In his work on the writings of Roman Land surveyors, Campbell has also expressed doubts about the reconstruction and above all the dating of division lines of Chouquer, Clavel-Lévêque, Favory and Vallat. After expressing some more general reservations concerning the weak evidential base of some of the reconstructed grids, he also questions the validity of the assumption that *strigae* and *scamna* are indeed, as Hinrichs had suggested, consistently older than centuriation. He argues that the writings of the land surveyors allow a different reading which sees this system not as primitive, but as an alternative to centuriation. In rough, mountainous terrain especially, this technique is more practical. Campbell also draws attention to a passage in Hyginus who states that different usages of land dictate different methods of measurement, including division in *scamna* and *strigae*.³³⁸ Unlike the Italian School, however, Campbell seems to suggest that this co-existence is not specific to the early phase of Roman expansion and land division, but continued into the Late Republic and Early Empire.

³³⁵ Chouquer, et al. 1987.

³³⁶ For the term see *Lib.Col.* C 182, 2.

³³⁷ Quilici 1994; see also Gabba 1989; Cancellieri 1997, 78 n. 15.

³³⁸ C 160, 23- 162, 24.

In this view, recognized land division in strips can no longer be considered an early form of land division, but can also be attributed to later periods in Roman history.³³⁹

The recent critiques of *Structures Agraires* have concentrated especially on more general methodological problems to do with the reconstruction and dating of systems of land division.³⁴⁰ However, these potential methodological flaws do not justify a complete rejection of all the data collected.³⁴¹ As will be argued below, problems with the dating of Roman land division grids are not limited to the grids recognized by the French scholars, but are also found in the evidence put forward by those advocating an early origin of orthogonal land division. In what follows, the evidence of Roman land division lines will be reviewed on a more detailed and case specific level in attempt to arrive at a better understanding of their function and probable chronology. First, the supposed examples of early centuriation, dating to the late fourth century, will be reviewed. This will be followed by a discussion of the evidence for non-orthogonal division.

4.2. Land division in the Pontine marshes: the earliest example of centuriation?

The view that centuriation originated in the late fourth century at the latest (cf. above) is based on the recognition of two orthogonal land division grids in the Pontine Plain, which correspond in terms of their location with probable areas of Roman land distribution in the fourth century recorded in the sources. The first and most famous has been recognized in the territory of the maritime colony of Terracina. It is located to the north-west of the colonial town centre, in a small plain between Monte Leano, Monte S. Stefano and Monte Giusto, and is orientated on the via Appia which is its *decumanus maximus*. The recognized 20x20 *actus* grid is perfectly compatible with the 2 *iugera* allotments each colonist received in 338 as stated in Livy.³⁴² The compatibility between the distributed allotment size and the land division system recognized is seen as a strong argument in favour of their contemporaneity.

³³⁹ Campbell 1996, 86 and Campbell 2000, lx-lxi.

³⁴⁰ See also Campbell 1996, 85.

³⁴¹ See for example Schubert 1996 who accepts the conclusions of Chouquer, et al. 1987.

³⁴² Livy 8.21. The centuriation was already recognized and dated to the 4th century in the late-nineteenth-century (e.g. De la Blanchère 1884). See especially Cancellieri 1990, 70-71 and Schubert 1996, 44-46 for good recent overviews of the history of its discovery and study.

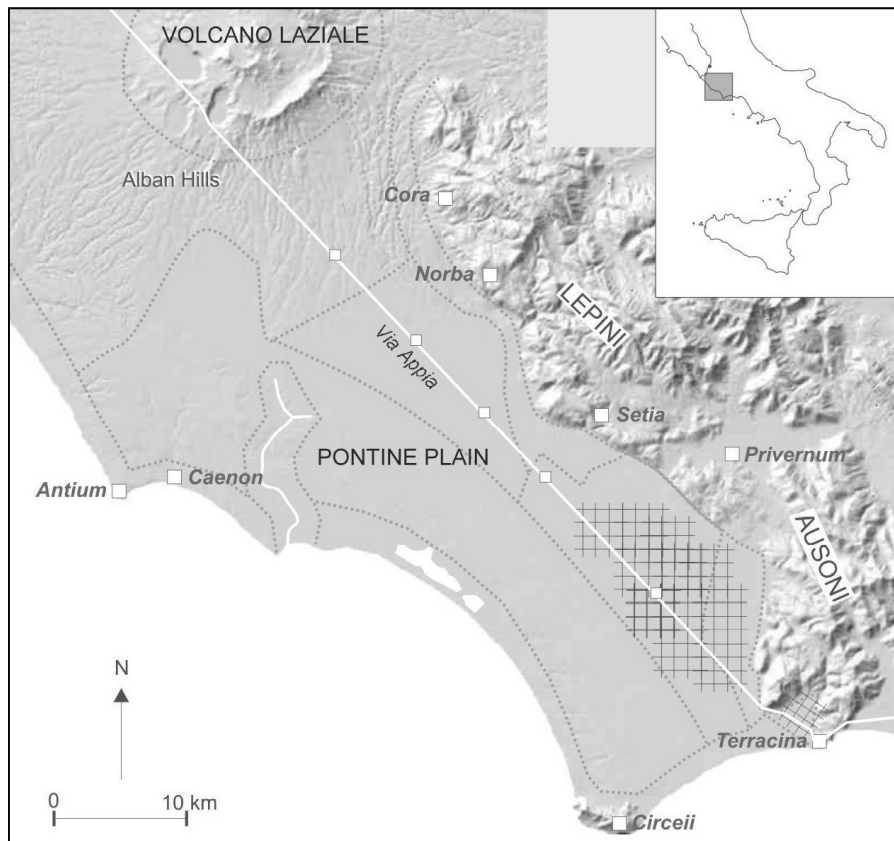


Fig. 9: Location of the land division grids of Terracina and the Pontine Plain (from Attema and De Haas 2005, 98).

Contesting this interpretation, Hinrichs has argued that the identification of this recognized grid with the original division of land at the time of the foundation of the colony is incorrect.³⁴³ His most important objection is the fact that the number of *centuriae* recognized far exceeds the required number. On the aerial photographs, 7 *centuriae* of 20 *actus* have been identified and several more half ones.³⁴⁴ This is more than three times as much divided land as was necessary for the original 300 colonists who were sent to the area (3 *centuriae* was sufficient to provide 300 colonists with 2 *iugera* of land).³⁴⁵ Hinrichs also points out that, according to the *agrimensores*, most maritime colonies were not provided with a system of division lines and in all cases for which a description of a land division does exist these date clearly to the triumviral period or later.³⁴⁶ In fact, Hyginus (2) records a system of

³⁴³ Hinrichs 1974, 55-56.

³⁴⁴ According to Chouquer and Favory 2001, 167, 13 partial blocks of centuriation have been identified.

³⁴⁵ Chouquer, et al. 1987, 106-108, recognized a system of *strigae* in the area which preceded the centuriation. The area of these *strigae* is smaller than that of the *centuriae* and is therefore compatible with the 300 plots of 2 *iugera* (cf. below). This two-phase solution is generally rejected (e.g. Cancellieri 1990).

³⁴⁶ See Hinrichs 1974, 52-53. Of particular interest are the cases of Sena Gallica, Potentia and Sipontum which, according to the *Liber Coloniarius*, were divided into *centuriae* in the late Republican period. For Sena Gallica: C 176, 20; C. 198, 12-13; Potentia: C 176, 20; C 196, 30; Sipontum: C 163, 27; C 202, 9. This impression is strengthened by the fact that in the territories of the other contemporary maritime colonies, no centuriation has been recognized which can convincingly be connected with the foundation of the colony. In the territories of Minturnae and Sinuessa a very extensive 20x20 *actus* grid is recognized but this can be convincingly dated to the late Republican period (Chouquer, et al. 1987, 169-181).

limites in the territory of Terracina; the general context of this passage appears to be the settlement of veterans after the Civil War of the late 40s.³⁴⁷

Hinrichs' late date for the Terracina grid is rejected by the Italian School. Its members argue that the existence of a triumviral colony in Terracina is improbable³⁴⁸ and, more importantly, that its supposedly early date is corroborated by the identification of a second centuriation in the Pontine Plain which can also be dated to the late fourth century.³⁴⁹

The centuriation in question has been recognized just a few kilometres to the west of the Terracina and extends alongside both sides of the via Appia between the 45th and 57th milestone.³⁵⁰ The grid is based on a 10 x 10 *actus* module and is crossed by the via Appia at an angle of 45°. Cancellieri claims that the via Appia is a *terminus ante quem* for the centuriation because, if the grid post-dated the construction of the road, it would have used the via Appia as the central axis of the system. From a practical point of view, since the area was effectively a swamp it needed structural drainage engineering works such as canalization before construction could take place. She thinks that the land division programme was what solved this problem, since the *limites* were often in fact channels. Hence, the creation of a centuriation grid served a double goal: it delineated holdings and at the same time dewatered the area and made it suitable for road construction. Since conventional understanding is that the via Appia was constructed on the initiative of Appius Claudius Caecus in 312 BC,³⁵¹ the centuriation grid must be older than that date. Cancellieri argues a likely date is suggested by the creation of the *tribus Oufentina* in 318, which took its name from the Ufens River which flows just through the northern part of the centuriated area.

Cancellieri's arguments are persuasive, but are less solidly based than is often assumed. The first contention is that the connection with the creation of the *tribus Oufentina* is not without problems. There is actually little reason to suppose that the creation of a tribe was normally followed by a land division programme. Usually, it was the other way around.³⁵² Actually, in the case of the Oufentina tribe, a land distribution which pre-dates its creation by some decades is recorded. Festus states that the Oufentina tribe was founded on land which had belonged to Privernum. Livy says that this land

³⁴⁷ Hinrichs 1974, 56. Also Campbell 2000, 389 n. 18. For the passage in Hyginus 2: C 142, 26-30. See also *Lib. Col.* C 186, 19 which states that the territory was left unsurveyed. Additional support for the view that the centuriation is from the late Republican period is provided by Chouquer, et al. 1987, 105-109 who point out several tiles which have been found in the territory bearing stamps mentioning names of colonists, among whom a certain Cn. Domitius Calvinus, consul of 40 BC and friend of Antony.

³⁴⁸ E.g. Cancellieri 1990, 71.

³⁴⁹ Countering the argument that the system is three times larger than necessary, it has been pointed out that this is not exceptional. The most famous example is Copia, for which Livy reports that more land was available than was distributed among the arriving colonists. It is also possible and has been suggested that the system was extended later when the population of the territory expanded. On Terracina see also Longo 1985.

³⁵⁰ The centuriation in the agro Pontino was already noted in the eighteenth century, but has only recently been studied and published in more detail by Cancellieri (Cancellieri 1990 with further references); and Cancellieri 1985.

³⁵¹ E.g. Livy 9. 29.

³⁵² Cf. Roselaar 2010, 54-58.

was confiscated and allotted to colonists by Rome in 340.³⁵³ However, the $\frac{3}{4}$ *iugera* plots reported do not fit neatly into the reconstructed 50 *iugera* blocks (66.666 plots per block).³⁵⁴

Another complicating factor is the dating of the course of the via Appia which crosses the area. The late fourth century date of the construction of via Appia has been challenged, most forcefully by Pekáry who has argued that construction began only in the second century.³⁵⁵ Although nowadays his radically revisionist position has little support and it is generally accepted that Appius Claudius gave the order to build the road through the Pontine Marshes, some uncertainties remain.³⁵⁶ One problem is the precise trajectory followed by the early road. It has been argued that the road did not follow the same course through the Pontine Plain from the beginning, but initially ran along higher ground farther to the north through the foothills of the Lepine Mountains.³⁵⁷ Since no archaeological excavations have been carried out which would allow the earliest strata of the section of the via Appia which crosses the marshes to be dated, the discussion about its original course has to depend on circumstantial evidence.³⁵⁸ The main argument used against the alternative hill route is a milestone of uncertain provenance mentioning two *aediles*, P. Claudius and C. Furius, which is generally dated around the middle of the third century.³⁵⁹ The inscription on the stone states that it was placed at the 53rd and 10th mile. The 53 miles indubitably refer to the distance from Rome, the 10 miles mentioned is less clear, but was most probably measured from Forum Appii.³⁶⁰ The fact that these distances correspond fairly well with the modern place Mesa (ancient ad Medias), where the stone was kept until 1926 and which lies on the direct route between Forum Appii and Terracina, strongly suggests that the road crossed the Pontine Plain at the time the milestone was placed.

What this theory fails to explain is why the stone was placed there several decades after the supposed construction of the road. Coarelli argues that the placing of the milestone was connected with the construction of a canal (the so-called *decennovius*) which flanked the via Appia and which is

³⁵³ Festus 212L. See also Taylor 1960, 55-56. For the confiscation and allotment of Privernate territory see Livy 8.1.3; cf 8.11.13. For the expulsion of senators in 329 see Livy 8.20.9.

³⁵⁴ Even if the passage in Livy is amended to $2\frac{3}{4}$ *iugera* the holdings would not fit comfortably in the grid.

³⁵⁵ Pekáry 1968, 37-46.

³⁵⁶ See Humm 1996 for a strong case in favour of a late fourth century date for the via Appia.

³⁵⁷ The so-called *via pedemontana*. Archaeological remains of this road have been found (Brandizzi Vittucci 1968). The road connected the colonies Cora, Norba and Setia.

³⁵⁸ According to Cancellieri 1990, 63, there is no archaeological evidence for an early date of the via Appia in this specific tract. For a good study on the building techniques used in the construction of the Via Appia see Quilici 1990. Recently, an intensive survey of a stretch of the Via Appia that runs through the marshes has been conducted (De Haas 2008). This study demonstrated convincingly that the area was densely populated, especially alongside the via Appia proper, from at least the third century onwards, but some evidence for earlier habitation dating back to the Archaic period has also been found. These findings seem to counter Pekáry's thesis that construction of this stretch of the via Appia begun in the second century. The data, however, could be reconciled with the construction date in the third century, contemporaneous with the milestone (see below).

³⁵⁹ CIL I², 21. Cf. Coarelli 1988, 37-38. See, however, Pekáry 1968, 43-44 who dates the stone to 189 since a P. Claudius Pulcher was *aedile* in that year (Livy 38.35). An A. C. Furius is also known from this period. He was *quaestor* of Consul Scipio in 190. Pekáry ingeniously connects this date to another reference in Livy (38.28) to road-building activities in 189, which he suggests was the real construction of the via Appia as it is known today. Coarelli 1988 rejects the proposed date of the milestone on the basis of paleographical and morphological arguments.

³⁶⁰ According to Coarelli, the 10 miles refer to the miles passed from the *decennovius*, the canal connecting Tripontum with Terracina. See, however, Cancellieri 1990, 64-65 and Humm 1996, 724-731 for convincing arguments against this view and in favour of Forum Appii.

commemorated by Horace (*Sat. I.5 v. 1-26*). Humm is not convinced by this theory. He believes it would have been almost impossible to build a road in such a marshy area without the construction of such a drainage canal and he argues that the channel must have been dug by Appius Claudius at the same time as the road was built.³⁶¹ This scenario still fails to explain on what occasion the milestone was erected. What was the work these *aediles* undertook? The answer remains obscure but the creation of a quicker route from Forum Appii to Terracina through the marshes is a possible candidate. Depending on whether Coarelli's or Pekary's dating of the milestone is chosen, the construction would have to be dated to either 250 or 189 respectively.

Apart from difficulties about the absolute date, the argument about the relative chronology of the road and the grid is rather thorny. The fact that the grid is not orientated on the via Appia does not necessarily imply an earlier date. There are plenty examples of land division systems post-dating the construction of the main road and with a very different orientation. A good example is the centuriation of the Ager Campanus, datable to the late Republican period, which is not orientated on the via Appia.³⁶² If besides the demarcation of holdings centuriation, as Cancellieri herself admits, had an important hydrological purpose (namely to drain the marsh to make it suitable for agriculture and road-building), the logical conclusion has to be that the orientation of the grid of channels was determined by hydrologic considerations and was largely unaffected by the Roman road network, which followed a very different rationale (namely, the quickest route from A to B). The creation of a canal flanking the via Appia (discussed above) sets even more questions by the *terminus ante quem* argument. As Humm has argued, the canal (and the earth from it which could be used to raise and found the road) would have helped to overcome the hydrological problems of the area. Consequently, it is doubtful whether the road was dependent on additional drainage works (such as centuriation) as Cancellieri claims. A counter-argument might posit that the road facilitated the arduous agricultural work which was necessary to make the Pontine Plain suitable to agriculture. It is interesting that the epitomizer of Livy mentions that in 160 the Pontine Marshes were drained by Consul Cornelius Cethegus, who had been assigned the task of converting them into arable land.³⁶³ Therefore, apparently the Pontine Marshes had not been drained successfully at an earlier date.

Adding to the interest in this discussion is Chouquer's recent discovery of two other 10x10 *actus* grids in the area. The first is located on a plateau to the north-west of Setia, covering an area of circa 5,000 *iugera* (12.5 sq. km); the other in the immediate surroundings of the town of Privernum (5,600 *iugera*). The presence of four similar grids of 10x10 *actus* so close to each other casts serious doubt on their supposedly independent creation and suggests they were part of a larger land division project involving several areas in the southern part of the Pontine Plain. In his discussion of the Setia

³⁶¹ Humm 1996, 728-731. Humm also argues that in the Souda, a medieval text, Appius Claudius is described as having built the road and a channel as well. The text is very late and ambiguous, since the waterworks could also refer to the *aqua Appia*, the aqueduct built by Appius.

³⁶² See Chouquer, et al. 1987, 199-206.

³⁶³ Livy, *Per.* 46.

grid, Chouquer conjectures that it might be *ager quaestorius*.³⁶⁴ This hypothesis is based on the morphology of the grid. Siculus Flaccus says that allotments of 50 *iugera* were the norm for land which was sold by *quaestores*.³⁶⁵ The only specific case recorded in the *Corpus Agrimensorum* is Cures Sabini, which is dated to around the middle of the third century, where a 10 x10 *actus* grid has indeed been identified.³⁶⁶ However, in the case of the Pontino it is difficult to see (especially if it is assumed that the various grids recognized are contemporaneous) on what occasion the selling of such vast tracts of land could have occurred. Moreover, as is discussed below, allotments of 50 *iugera* were not used exclusively in the context of *agri quaestorii*.

A different date and motivation have been suggested by Chouquer for the Privernate grid. In this case, he proposes connecting the centuriation with the foundation of a colony in Privernum; possibly established by Cornelius Cethegus who is said to have drained the Pontine Marshes in 160 (cf. above). A large land reclamation programme and subsequent colonization by Cethegus is an attractive candidate, since the large scale of the operation also explains the presence of the other 10x10 *actus* grids, which could have been part of the same large-scale operation, in the area. However, the foundation of a colony in Privernum by Cethegus is debated and it has been argued that the town only became colony in the first century, in the immediate aftermath of the Social War.³⁶⁷ In fact, support for the view that the land division dates to this later period is found in a passage in Frontinus who reports that the typical size of *centuriae* established by triumvirs in Italy was fifty *iugera*.³⁶⁸ The presence of several 10x10 *actus* grids in the southern Pontine Plain could therefore also be explained as the outcome of the settlement of veterans in this area after the Social War. Corroborating evidence for such an explanation is provided by the *Liber Coloniarum* which records several triumviral colonization programmes for the area.³⁶⁹

Without proper excavation, the construction date of the centuriation grids in the Pontino cannot be firmly established and remains open for discussion. Nevertheless, none of the centuriations which has been discovered in the area can be conclusively dated to the late fourth century and therefore does not prove an early development of this practice. There are plenty of other events with which the 10x10 *actus* grids recognized in the agro Pontino can plausibly be connected and a post-Hannibalic date can easily be defended.

³⁶⁴ Chouquer, et al. 1987, 103.

³⁶⁵ C.119.29-121.19. Roselaar 2010, 121-127.

³⁶⁶ Cf. below.

³⁶⁷ Cancellieri 1974. Also Chouquer, et al. 1987, 104 n. 54 (with further references) for a discussion of the problematic passage in the *Lib. Col.* C 184.28-30: "Privernum, a town, encircled with a wall, a colony. Soldiers founded it without colonists. A right of way 30 feet wide is due to the people. The cultivated section of its land was allocated partly in *iugera*; the rest remained strips, or unsurveyed".

³⁶⁸ Frontinus C 11, 32. See also Hyginus 2 C. 137.35. A possible second century date could be argued on the parallel with a 10x10 *actus* grid recognized around Forum Populi and between the via Aemilia and the via Popilia. The town and the road were probably constructed in 132, which suggests that the land division grid is contemporaneous, or a bit later (Chouquer 1981, 862).

³⁶⁹ For Privernum: *Lib. Col.* C 184.28-30: "Privernum, a town, encircled with a wall, a colony. Soldiers founded it without colonists. A right of way 30 feet wide is due to the people. The cultivated section of its land was allocated partly in *iugera*; the rest remained strips, or unsurveyed." For Terracina see above.

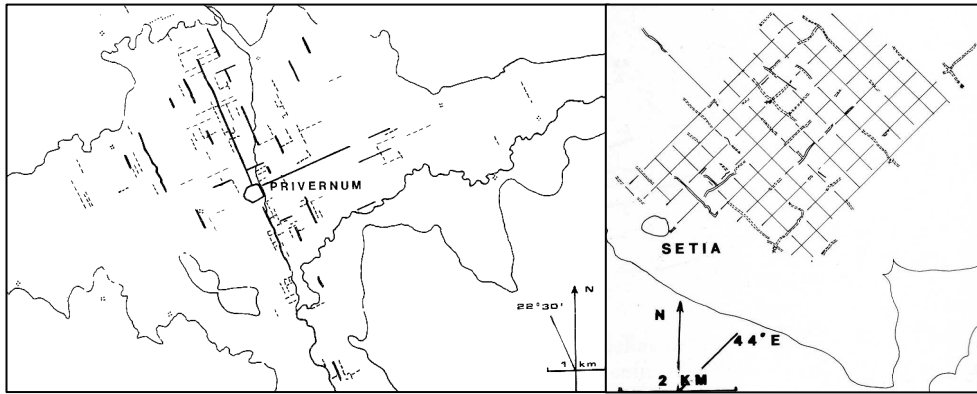


Fig. 10: 10x10 *actus* grids around Privernum and Setia (from Chouquer 1987, 100 and 103).

4.3. Parallel division lines in early viritalne territories

In the previous section, I have argued that the evidence for the existence of orthogonal land division grids (whether *centuriae* or *laterculii*) in the fourth century is very fragile. This section investigates the theory, advocated most cogently by Hinrichs and subsequently by the authors of *Structures Agraires*, that early colonial landscapes were divided by parallel lines only; a practice which was replaced by orthogonal land division programmes after the conquest of the Po Valley. If this evolutionary scheme could be proved to be correct, it would provide a clear *terminus ante quem* for the dating of these systems consisting of parallel lines only and permit their connection to early colonial practices. However, as noted above, Campbell's study of the texts of the *Corpus Agrimensorum* has shown that land division on the principle of *strigae* and *scamna* was also practised in later times, especially in more mountainous areas. This observation strongly challenges the idea that the morphology of a grid can be used as a dating criterion. The upshot is that other arguments have to be used for establishing the precise date of these grids. Below I shall discuss these recognized systems of parallel division lines and investigate how likely an early colonial date for them is. I shall begin with the land division systems which have been recognized in viritalne territories. Those recognized in colonial territories will be discussed separately in the next section.

Pomptina

The oldest traces of land division systems on Roman colonial territory have been recognized in the Pontine area and are dated to the middle of the fourth century in connection with creation of the *tribus Pomptina*.³⁷⁰ Taylor says that the tribe was located near the settlement of Ulubrae.³⁷¹ Around the probable location of this ancient settlement, Chouquer, Clavel-Lévêque, Favory and Vallat have recognized various dividing lines which seem to be spaced at 8 *actus* intervals and cover an area of c.

³⁷⁰ In the territory of Veii, the first large area to have been divided and distributed to Roman citizens and philo-Roman natives, no traces of land division systems have been recognized. Of course, it is possible that all traces have disappeared or that they have not been recognized, but it is generally assumed in this period Rome did not use any sophisticated, durable system of land division. The *Lib. Col.* C 172, 11 -40; C 175,15-17, records an allocation of land to soldiers as prescribed by a *lex Iulia*, and later division by various emperors, using *limites intersecivi*.

³⁷¹ Taylor 1960, 50.

3,000 *iugera* (7.5 sq. km.).³⁷² On the basis of the morphology of the grid (that is, a system of parallel lines only), they date it to the mid-fourth century, which would provide a chronological fit with the creation of the Pomptina tribe. This is not plain sailing. One problem is that the *Liber Coloniarum* records a triumviral allocation and a subsequent intervention in Ulubrae by Drusus Caesar.³⁷³ No traces of this land division programme have been recognized. This disparity opens up the possibility that the traces recognized belong to this early Imperial land division programme, especially if Campbell's position that later allocations need not necessarily have been accompanied by centuriation is accepted.

Poblilia

Another round of land confiscation and distribution can be assumed to have taken place around 358, with the creation of the Poblilia tribe. Taylor places this tribe in the northern part of Hernician territory, in the upper Sacco Valley, which was confiscated after the Hernician-Roman war of 362.³⁷⁴ The survey by Chouquer, Clavel-Lévêque, Favory and Vallat has revealed several systems of division lines in Hernician territory. An extensive grid of parallel lines running north-south, covering 19,000 *iugera* (47.5 sq. km.), has been identified in the area between the ancient towns of Aletrium, Frusino and Verulae.³⁷⁵ Their orientation is identical to that of the course of the Cosa River. The *limites* are spaced irregularly, but the French team say that a distance of 12, 24 or 36 *actus* can often be measured. Part of this grid had already been recognized by Hinrichs, who dated it to the pre-Roman period on the account of its irregular character.³⁷⁶ Rejecting this early dating, Chouquer, Clavel-Lévêque, Favory and Vallat connect it with Roman conquest and with the colonization of the area in the fourth century. The morphology of the grid is similar to that of Ferentinum and Alba Fucens (cf. below), which might suggests they share a similar chronology and are of Roman origin.

From a historical point of view, a Roman land division programme in this area in the late fourth century is problematic. At the time of its foundation, the Poblilia tribe is usually placed to the north of Anagnia and it is commonly agreed that the Hernician towns retained their independence after the war.³⁷⁷ Verulae and Aletrium were probably not incorporated until after the Social War.³⁷⁸ A

³⁷² Chouquer, et al. 1987, 99-100.

³⁷³ *Lib. Col. C* 186, 26-27: "Ulubrae, a town, which had been founded by the triumvirs; later, it was the object of an incursion by Drusus Caesar. Its land was allocated by name (to individuals). A right of way is not due to the people."

³⁷⁴ Taylor 1960, 50-54. The details of the annexation of this land are rather complex and poorly understood. There are no clear references in the sources which state unequivocally that land was actually confiscated and distributed after this war. However, more than a century earlier confiscation of land is documented. Livy says in 486 the Hernici lost two-thirds of their territory after their defeat in war with Rome. Cassius proposed distributing this land among Romans and Latins (Livy 2.41). However, Dionysius has a very different account of the event, which states that the Hernici did not lose any land, but were made allies and were included by Cassius in his scheme to distribute land occupied by the rich (Dio. Hal. 8.77). In general, Dionysius' version is regarded as the most reliable. It is argued that Livy confused two things (e.g. the Agrarian Law and the Hernician Treaty). E.g. De Sanctis 1960, 8-9; also Cornell 1995, 271, who agrees with De Sanctis on the mixed version argument, but is less sceptical about the possibility that some elements of the *rogatio Cassia agraria* are historical.

³⁷⁵ Chouquer, et al. 1987, 120; See also Schubert 1996, 48-49.

³⁷⁶ Hinrichs 1974, 40.

³⁷⁷ For the location of the Poblilia see Taylor 1960. Cornell 1995, 324 who argues that Rome needed to sign a treaty with the Hernicians since new Gallic raids threatened Rome.

Hernician origin, as proposed by Hinrichs, therefore seems more plausible.³⁷⁹ On the other hand, a later date cannot be excluded. Land distribution to veteran soldiers is recorded in Frusino and Verulae.³⁸⁰ On the basis of the fact that the traces recognized are not depicted on cadastral maps of the eighteenth century, Castagnoli has even argued that the division lines detected by Hinrichs are modern.³⁸¹

A second grid of parallel lines has been recognized around the Hernician town of Ferentinum. Its orientation corresponds to that of the *via Latina*; the *limites* are spaced at irregular distances and they are orientated perpendicular to the main river in the area. The grid recognized covers an area of 8,000 *iugera* (20 sq. km.) and is located in the lowest part of the Ferentinum territory (below 300 m.). Ferentinum was loyal to Rome during the revolt of 306, which the French team claims implies that the territory must have been divided before that time, probably sometime after the Latin War, when the *via Latina* was built.³⁸² However, as in the case of the Hernician cities discussed above, the settlement of colonists and the consequent reorganization of the land in this area is not recorded in the sources and remains conjectural. Certainly, two dedications made at Ferentinum in the Imperial period suggest the arrival of new settlers, possibly veterans.³⁸³

Finally, to the west of Anagnia, the capital of the Hernician League,³⁸⁴ a number of *limites* have been recognized. These are orientated in a south-west and north-east direction and are spaced at irregular intervals. Smaller intersecting lines have also been identified at irregular distances which delimit rectangles of various size, which according to the reconstruction of Chouquer, Clavel-Lévêque, Favory and Vallat were measured in *actus* or 1/2 *actus*. The total area covers 14,000 *iugera* (35 sq. km.).³⁸⁵ Roman intervention and land distribution in the late fourth century are plausible. The Poblilia tribe is usually located in this area and sometime after the rebellion of 306 the whole town was enrolled in it. Nevertheless, the unsystematic nature of the grid, which divides the landscapes into parcels of unequal size and often cannot be expressed in rounded *iugera*, compounded by the fact that the lines are positioned perpendicular to the relief, weakens the supposed connection with early Roman land distribution to colonists; especially since similar systems recognized in Alatrium and

³⁷⁸ Alatrium and Verulae did not take part in the Hernician revolt of 306 (Livy 9.42) and, as a reward, could remain independent communities until the Social War. Frusino, a Volscian town, did revolt and was punished by the loss of one-third of its territory (Livy 10.1), which Diodorus says was distributed to Roman citizens (Diod. 20.80).

³⁷⁹ Also Campbell 2000, 427, n. 155 for a possible Hernician origin. He also questions the evidential basis of this grid (Campbell 2000 414, n. 91). Its orientation is identical to that of the River Cosa which traverses the area.

³⁸⁰ Although it is probable that they used the existing Gracchan *limites* (recognized by Chouquer as a 13x13 *actus* grid), a new territorial organization cannot be excluded. For Alatrium: C 178, 34-35: "Aletrium, a colony encircled with a wall. The people founded it. A right of way is not due to the people. Its land was allocated by centuriae and strigae." Frusino: C 182, 20-21: "Frusino, a town. Encircled with a wall. A right of way is not due to the people. Its land was allocated to veteran soldiers." That Frusino was colony in the Imperial period is also attested to epigraphically (CIL X, 5662). Verulae: C 186, 34 188, 1: "Verulae, a town encircled with a wall, Its land was allocated by name (to individuals), by means of Gracchan *limites*; it was granted to colonists by the emperor Nerva."

³⁸¹ Castagnoli 1984, 244. The morphological argument, that it is similar to the grids of Alba Fucens and Ferentinum (below), is unconvincing, since these grids have been dated on the basis of the same morphological criteria.

³⁸² Chouquer, et al. 1987, 118.

³⁸³ CIL X, 5825; 5828. Campbell 2000, 419 n. 118 *Lib. Col.* C 182, 25-26: "Ferentinum, a town encircled with a wall. A right of way is not due to the people. Its land was allocated proportionally by continuous *limites*, in *iugera* and in strips."

³⁸⁴ See Livy 9.42 on its focal position in the Hernician society.

³⁸⁵ Chouquer, et al. 1987, 114.

Verulae cannot be convincingly connected to early Roman colonization (cf. above). Moreover, an early Imperial division into *strigae* in this area is recorded in the *Liber Coloniarum*.³⁸⁶

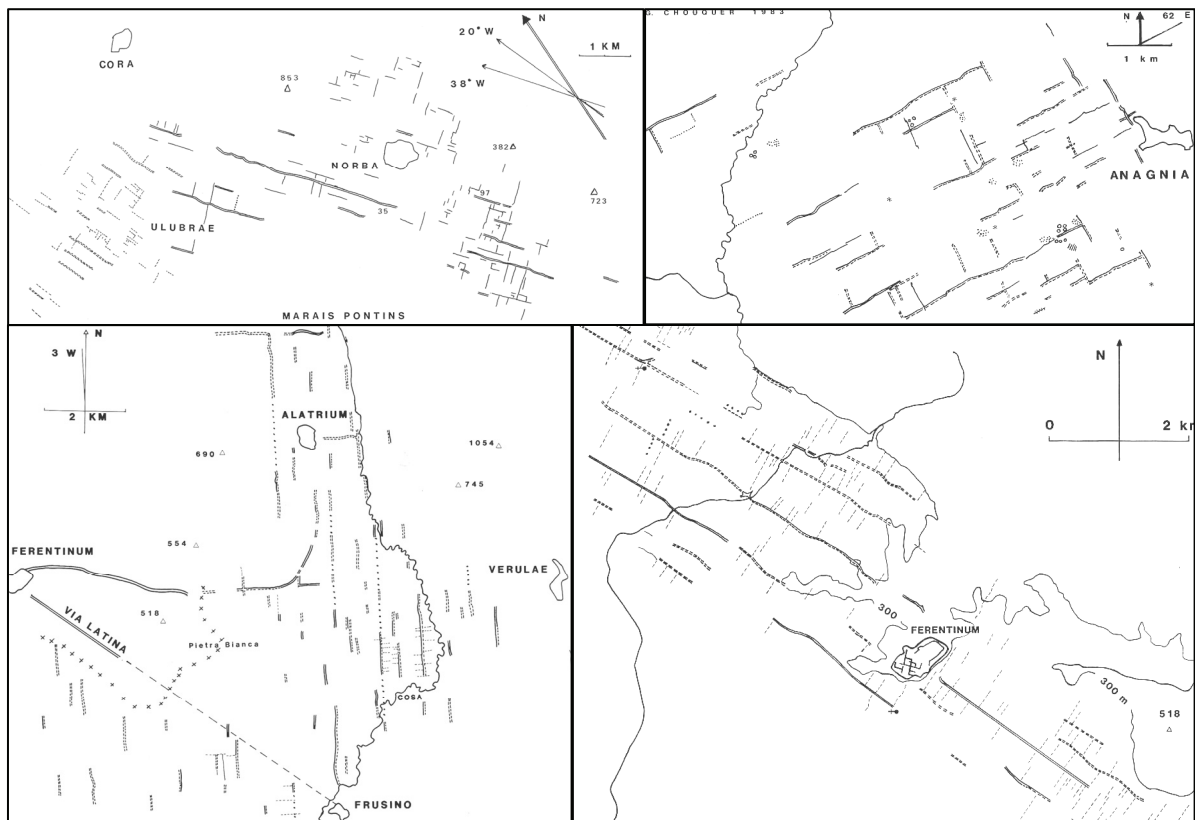


Fig. 11: Land division systems recognized by Chouquer in the territories of the *tribus* Pomptina and Poblilia (from Chouquer 1987, 99, 114-120).

Scaptia and Maecia

The next large confiscation of land occurred after the Latin War. Land was distributed in the Ager Latinus, at Privernum and in the Ager Faliscus. Livy's statement that 2 *iugera* of land were distributed in Latium in 338 is difficult to localize more precisely. A possible clue is the creation of two new tribes in 332: the *Scaptia* and the *Maecia*; the first probably located in the territory of Velitrae; the second in that of Lanuvium.³⁸⁷ Livy states that both tribes were created for new citizens, but the fact that he also claims colonists were sent to the land of Velitrean noblemen who had been expelled, suggests settlers of Roman origin were also included.³⁸⁸ No division into strips around these towns has been recognized by the French team. Only around Velitrae did they identify a centuration based on a

³⁸⁶ C 180, 5-6. "Anagnina a colony encircled with a wall. The people founded it on the orders of Drusus Caesar. A right of way is not due to the people. Its land was allocated to veterans in *strigae*." Hinrich's thesis says that this can be explained by the fact that late Republican veteran settlement re-used existing division grids. See Campbell 2000, 415 n. 94: for a critical remark on the recognized *strigatio*.

³⁸⁷ Taylor 1960, 54.

³⁸⁸ For the inclusion of new citizens see Livy 8. 17. On the expulsion of elites: Livy 8.14. See also Cornell 1989a, 362.

15 x15 *actus* module. However, on account of the morphology of the cadastre and a reference in the *Liber Coloniarum*, this grid is dated to the Augustan period.³⁸⁹

Privernum

In the territory of Privernum, besides the 10x10 *actus* grid discussed above, Chouquer, Clavel-Lévêque, Favory and Vallat have identified eight parallel division lines, located at 13 *actus* from each other. The grid is located immediately around the ancient urban centre and terminates at the point where the terrain begins to rise (altitude curves of 100 m.). It is orientated perpendicular to the River Amaseno and covers an area of 8,800 *iugera* (c. 22 sq. km.). The French team postulates that the most likely interpretation is the grid was laid out immediately following the capture of the town in 340 and was subsequently divided into 339 in allotments of $\frac{3}{4}$ *iugera*.³⁹⁰ The problem is that Privernum was enrolled as a *civitas sine suffragio* in 338, which implies that part of the Privernate territory was not enrolled in the Oufentina tribe.³⁹¹ The *tribus* is generally located in the Pontine Plain, near the River Ufens, which makes the connection between the recorded land division and the recognized grid problematic.³⁹² In later times, the territory of Privernum was allocated to veterans.³⁹³ A study of the terrain carried out by Cancellieri could not verify the actual existence of these division lines.³⁹⁴

Ager Falernus

In the Ager Falernus, home of the Falerna tribe, Johannowsky recognized three *decumani*, located immediately to the east of the Rio Fontanelle, with a distance between them of circa 4,000m. This distance does not correspond to any known unit of ancient measurement. Perpendicular to these axes a large number of *kardines* were identified. These were separated by a distance of 147.5 m. corresponding to 500 Roman feet. Johannowsky argues that the delimited units (4000x147.5m) are

³⁸⁹ Chouquer, et al. 1987, 98. *Lib. Col. C* 186, 24-25: "Velitrae, a town, which had been settled under a lex Sempronia. Later, Claudius Caesar ordered its land, which had been assessed by means of Augustean *limites*, to be allocated to soldiers." *Lib. Col. C* 184, 4-6: "Lanuvium, encircled with a wall, a colony founded by the divine Julius. Its land was allocated in part to veteran soldiers by means of Augustan *limites* and in part belonged to the Vestal Virgins according to a lex Augustiana. But afterwards, the emperor Hadrian ordered the land to be allocated to his own colonists."

³⁹⁰ Chouquer, et al. 1987, 105. Livy 8.1, for the conquest of the town and loss of 2/3 of its territory. On the division of the territory see Livy. 8.20.

³⁹¹ In nearby Fundi, also enrolled as a *civitas sine suffragio*, Chouquer has also recognized traces of *limites*, which he connects to Roman intervention in the area. East of Fundi, 13 parallel lines, 8 *actus* distant from each other, located perpendicular to the via Appia, have been recognized. According Chouquer, et al. 1987, 109, the system was created sometime at the end of the fourth century, either in connection with the revolt or with the construction of the via Appia in 312. *Lib. Col. C* 182, 29-30: "Fundi, a town encircled with a wall. A right of way is not due to the people. By orders of Augustus, the cultivated part of its land was allocated to veteran soldiers. The rest (of its land) was in his jurisdiction and reverted to public control." See Campbell 2000, 420 n. 120 for a critical remark on the grid recognized and the observation that the lines need not indicate Roman confiscation and settlement.

³⁹² Cancellieri 1990.

³⁹³ *Lib. Col. C* 184.28-30: "Privernum, a town, encircled with a wall, a colony. Soldiers founded it without colonists. A right of way 30 feet wide is due to the people. The cultivated section of its land was allocated partly in *iugera*; the rest remained strips, or unsurveyed."

³⁹⁴ Cancellieri 1997, 78 n. 15.

compatible with the recorded 3 *iugera* distributed to the settlers of this area: seventy-eight plots of 3 *iugera* can be fitted into each unit.³⁹⁵

The 500 Roman feet measured between the *kardines* is a rather strange interval (the Romans usually used the *actus* (120 feet)). In this decimal system it is possible to recognize the use of the *plethron/vorsus*; in which case the interval corresponds to 5 *plethra*.³⁹⁶ As a matter of fact, Heurgon has already pointed out the fact that the recorded 3 *iugera* (0.756 ha) corresponds exactly to 10 square *vorsus* (0.7556 ha) and he suggests that the Campanians might have been involved in the construction of this grid.³⁹⁷

A very different reconstruction of the grid has been proposed by Vallat, who says that the *kardines* are spaced at intervals of 14 *actus* (c. 497m.).³⁹⁸ He argues that the perpendicular intersecting east-west *limites* are spaced at a distance of 112 *actus* apart (3976m.) and most probably other intersecting *limites* existed between them at intervals of 14 *actus*. This allows the construction of a 14x14 *actus* centuriation. In total the reconstructed grid covers an area of circa 15,680 *iugera*, (c. 39 sq. km.). Vallat initially claimed that the north-south lines were laid out first, probably in 340 when the area was divided *viritim* according to Livy. The crossing *limites* would have been created at the end of the fourth century in connection with the founding of the *tribus Faleria* (318) and the construction of the via Appia (312).³⁹⁹ However, in *Structures Agraires* it is argued that the *decumani* were created first and the via Appia, constructed only several decades later, replaced an older road as the main axis of the land division system. The argument is based mainly on the idea that land division systems based on *decumani* are typical of the late fourth century. Principally on the basis of their morphology, the north south lines are connected with a Gracchan or Sullan *renormatio*.⁴⁰⁰ The view that the intersecting lines are of later date has little evidence to support it and is based above all on the expectation that a system of parallel lines was introduced during the late fourth century land division.

Some support for an early rural reorganization is provided by the results of a physiographic soil survey of the area which was carried out by the University of Amsterdam.⁴⁰¹ This survey revealed

³⁹⁵ As additional proof of the existence of an ancient division system in this area, Johannowsky points out a *cippus* found in località Marchesa to the east of Ciampisco mentioning four persons (R. Vedo{?}/ V. Autrodius. C.f., S Racectius S.f., S. Teditius S.f.), who are said to have placed the *cippus* (*statuendos locaverunt*). On the basis of the palaeographic criteria, the *cippus* is dated to the early third or late fourth century. According to Johannowsky, these men are best understood to be the *quattuorviri agris dandis*; the magistrates who divided the area into viritate settlers in 340. However, the dating of the *cippus* is controversial and it has been argued that the stone dates to the second half of the second century. See Chouquer, et al. 1987, 184-185 n. 332 for discussion and further references. Furthermore, the magistrates mentioned in the inscription are not otherwise known; colonial commissioners as a rule were highly placed individuals, mostly consuls and praetors.

³⁹⁶ See below for a discussion of these measurement units.

³⁹⁷ Heurgon 1970, 259.

³⁹⁸ Vallat 1980, Vallat 1983, 227 and Chouquer, et al. 1987, 181-190.

³⁹⁹ Vallat 1983, 227. Verification of this supposed late fourth century date has been provided by surface reconnaissance which resulted in the identification of various Republican sites, often in the near vicinity of the main axis of the grid. Generally, the meagre seven sites are only dated to the Republican period and make it no more than plausible that the main axes of the system (that is, the via Appia) and the parallel road commencing from Forum Popili were in use in the Republican period.

⁴⁰⁰ On the basis of Chouquer's evolutionary scheme, the recorded centuriation cannot date from the late fourth century, a view which in this case is strengthened by the fact that the 3 *iugera* recorded which Livy says were allotted do not fit neatly into the 14x14 *actus* blocks (32.67 allotments per sq. km.).

⁴⁰¹ Sevink 1985.

that the area in question was originally very marshy and was intentionally allowed to silt up, probably by means of the construction of a system of channels which forced the re-deposition of alluvial soils from the higher areas to the north-east (the process is called *colmatage*). Arthur noticed that the area of centuriation corresponds very well with the areas of *colmatage* mapped by Sevink, which suggest the existence of a relationship between the two.⁴⁰² In the nearby Pontine Plain, similar evidence of *colmatage* is dated to the fourth century on the basis of the sites from this period which are located on these drained lands. It has been suggested that the *colmatage* of the Ager Falernus dates to the same period and should be connected with Campanian, or more probably with Roman intervention in the area.⁴⁰³ However, even if it is accepted that one of these landscapes was reclaimed in the fourth century, it still cannot be said with any certainty that all *colmatage* processes were coeval.⁴⁰⁴

4.4. Parallel division lines in the territories of maritime and Latin colonies

As was said in Section 4, the genesis of Roman centuriation has often been connected with the foundation of the first maritime colonies in the late fourth century. The military character of these settlements, which is clearly reflected in the orthogonal lay-out of these *castrum*-like settlements, was supposed to have been mirrored in rural territory in the form of a ridged orthogonal land division system (*centuriatio*). As I have demonstrated, this theory raises some important problems and, in fact, there is no convincing evidence to support the claim. This section investigates the theory advocated most strongly by Chouquer that maritime colonies, just as other colonial landscapes of the late fourth century, were divided according to the more primitive, non-orthogonal land division system.

Terracina

In Section 5, I have argued that the supposed early date of the orthogonal land division grid near Terracina is unconvincing, since a good case can be made for a later date of construction. A possible solution has been offered by Chouquer, Clavel-Lévêque, Favory and Vallat, who have argued that the centuration grid of Terracina was preceded by a system of north-south parallel lines; a method they regard as typical of the early period of Roman land division.⁴⁰⁵ The hypothesis is based mainly on the fact that in a restricted part of the centuriated area (c. 600 *iugera*), internal division lines, the majority with a north-south direction which often form 2 *iugera* allotments, have been identified. This

⁴⁰² Arthur 1991, 35.

⁴⁰³ Arthur argues that the delay between the conquest of the area and the actual creation of the Falerna tribe could be explained as the time necessary to drain the area and make it suitable to settlement. Taylor 1960, 56, who follows Livy, the delay was the result of the dissatisfaction of the plebs with the division of land.

⁴⁰⁴ The few sites which have been recognized in the area dating to the Republican period attest that the area was suitable to settlement sometime during the Republican period (Vallat 1983). No earlier material has been found during the reconnaissance of the area. The fact that pre-Roman pottery in this area is difficult to recognize and is poorly understood (especially at the time of the survey) makes it dangerous to conclude that the marshy area was first settled in Roman Republican times. The date of origin of Forum Popili is debated. A Popilius consul of either 316 or of 132 is connected with the foundation of the settlement. In this last view (advocated by Johannowsky), Forum Claudii was named after Ap. Claudius Pulcher, consul of 143 and triumvir in the land distribution scheme of 133. If this is a correct interpretation, it is possible that he was responsible for (further) drainage of the area.

⁴⁰⁵ Chouquer, et al. 1987, 106-108.

reconstruction has been rejected by Italian scholars.⁴⁰⁶ Since these lines have the same orientation as the *kardines* of the supposedly triumviral centuriation and of the modern division of the landscape, it is impossible to establish whether they belong to an earlier division grid.

Minturnae and Sinuessa

In the territory of Minturnae evidence for land division has been recognized in a series of *limites* which are located on both sides of the via Appia (which crosses them at a right angles), running for several kilometres to the west from the colonial town centre.⁴⁰⁷ In total 3,000 *iugera* are covered this way. In some places, the division lines seem to be spaced at a regular distance of 4 *actus*; perpendicular lines have also been recognized at a distance of 8 *actus*. This allows the reconstruction of a rectangular grid of 4x8 *actus*. According to *Structures Agraires*, the grid can plausibly be connected with the foundation of the colony in 296. The size of the grid, which covers 5 times as much space as was needed for the 300 colonists is the fly in the ointment.

To the north of the town of Sinuessa, Pagano recognized three east-west division lines spaced at intervals of 14 *actus* (497m), which are little less than one kilometre long and delimited to the east by the via Appia which meets the division lines at an angle of almost 90 degrees.⁴⁰⁸ Excavations carried out at the southernmost division line in 1937 revealed part of a Roman road. A similar interval of 14 *actus* has been recorded in the Ager Falernus and has been dated in the late fourth century (cf. above). Pagano believes that this morphological argument taken in conjunction with the small extension of the grid (little more than 800 *iugera*) makes it most likely that the grid dates to the foundation of the maritime colony in 296.

According to *Structures Agraires*, the division lines in this area are spaced at a distance of 480 m., a measurement corresponding to 16 *uorsus*. Moreover, perpendicular lines spaced at the same distance have been recognized, producing an orthogonal grid of 16 x 16 *uorsus* covering an area of circa 4.6 sq. km..⁴⁰⁹ Frontinus says the *uorsus* was used as a unit of measurement by the Oscans, the Umbrians and the Greeks.⁴¹⁰ The main difference between the *actus* and the *uorsus* is that the latter consists of 100 instead of 120 *pedes*. The issue is somewhat confused because the measure used in the grids discussed was not the Oscan foot (c. 27.5 cm) but one similar to the Roman equivalent (c. 29.57 cm.). An explanation for this peculiar unit of measurement can be found in the Greek world: 480 metres corresponded to 16 *plethra* (the Attic foot is similar to the Roman one, but instead of the Roman *actus*, which consisted of 120 *pedes*, the Greeks (like the Oscans) used a unit of 100 feet).⁴¹¹

⁴⁰⁶ Cancellieri 1990.

⁴⁰⁷ Chouquer, et al. 1987, 169-176.

⁴⁰⁸ Pagano 1981.

⁴⁰⁹ Chouquer, et al. 1987, 171 (fig. 52).

⁴¹⁰ See Front. *de limitibus*, (C. 10, 16- 19) on the 100 foot unit used by the Greeks, Umbrians and Oscans. Frontinus seems to suggest that the *uorsus* is older than the 120 foot unit used in the *actus*. See also La Regina 1999, 5-9.

⁴¹¹ To avoid confusion I will use *plethron* for 100 foot systems that are based on a foot length of c. 29.5 cm, and *uorsus* for 100 foot systems that are based on a foot length of c. 27.5 cm.

As a matter of fact, around the Greek town of Metapontum, a *strigatio* with intervals of 8 *plethra*, which is dated to the Archaic period, has been identified.⁴¹²

A similar grid has been recognized farther to the north-east, covering the whole plain between Sinuessa and Suessa Aurunca to the north of Monte Massico.⁴¹³ This grid of c. 40 sq. km. seems to be based on an 8x8 *plethron* module. Finally, farther to the south-east, near the so-called *vicus Sarclanus*, another grid based on *plethron* has been identified, which apparently used a 5x25 *plethron* module.⁴¹⁴ Of course, the use of the *plethron* as the main unit of measurement questions its supposedly Roman origin. Possible candidates for the creators of this grid are the Auruncians or possibly even the inhabitants of the mysterious, and probably legendary, Greek settlement of Sinope.

⁴¹² Carter 2006, 95-96 with further references. The *strigatio* with intervals of c. 240 m. has been identified on the south side of the territory. In other areas the module seems to have been based on a 210 m spacing. See also Schubert 1996, 31-34.

⁴¹³ Chouquer, et al. 1987, 169-170 (fig. 50).

⁴¹⁴ Chouquer, et al. 1987, 181 (fig. 55). In Johannowsky's reconstruction of the division lines of the Ager Falernus, the *kardines* were also located at a distance corresponding to 5 *vorsus* (cf. above).

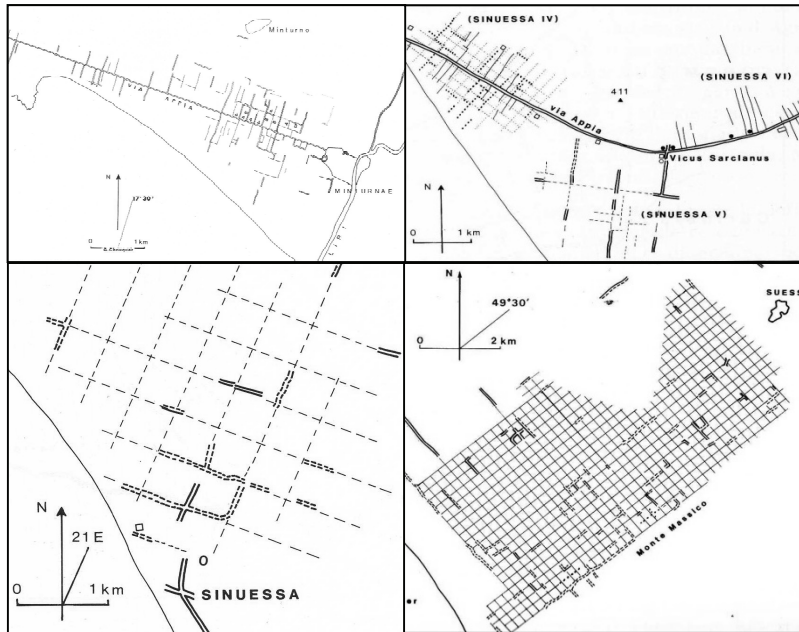


Fig. 12: Land division systems recognized by Chouquer in the territories of the maritime colonies Minturnae and Sinuessa (from Chouquer 1987, 170, 172, 181).

Cales, Luceria and Paestum

The *plethron* rather than the *actus* also seems to have been the dominant unit of measurement used in the oldest Latin colonial territories. In Cales, division lines are spaced at intervals of 480 metres, which corresponds best with a grid of 16 *plethra*.⁴¹⁵ Similarly, in Luceria *limites* have been recognized which are spaced at intervals of 16 *plethra*, intersected by crossing lines every 32 *plethron*.⁴¹⁶ The case of Interamna Lirenas is less clear, since the distance between the *limites* is irregular. The French team lead by Chouquer argues that often a distance of circa 13 *iugera* (c. 461 m) can be measured.⁴¹⁷ However, the distance is often greater than that which makes it possible that a 16 *plethron* module was used.

⁴¹⁵ Castagnoli 1953/ 1955, 3. See, however, Chouquer, et al. 1987, 192 who claim that the lines are c. 470 m apart, which approaches 13 *actus*. Finally, La Regina 1999, 9, who argues that the 467 m distance measured between the *limites* corresponds to a 17 *uorsus* grid with Oscan foot.

⁴¹⁶ See Volpe 1990, 209-213 for a good description of the *limites*. However, just as scholars before him, he reconstructs a 13.38 x 26.76 *actus* grid. Pelgrom 2008, 362-363, arguing that this corresponds to a 16x32 *uorsus* grid.

⁴¹⁷ Chouquer, et al. 1987, 124. A recent survey of the epigraphic evidence of the area has revealed that the identified strigatio covers large parts of the territory of Aquinum. If correct, this would make the hypothesis that this land division program belonged to the early colonial period implausible. Either the territorial boundaries changed drastically in later times (held improbable by the Solin) or the identified limitatio does not belong to the colony proper (Solin 1993, 124-5). See also next section for an argument against the view that the grid of Interamna was connected with land division at the time of the foundation of the colony.

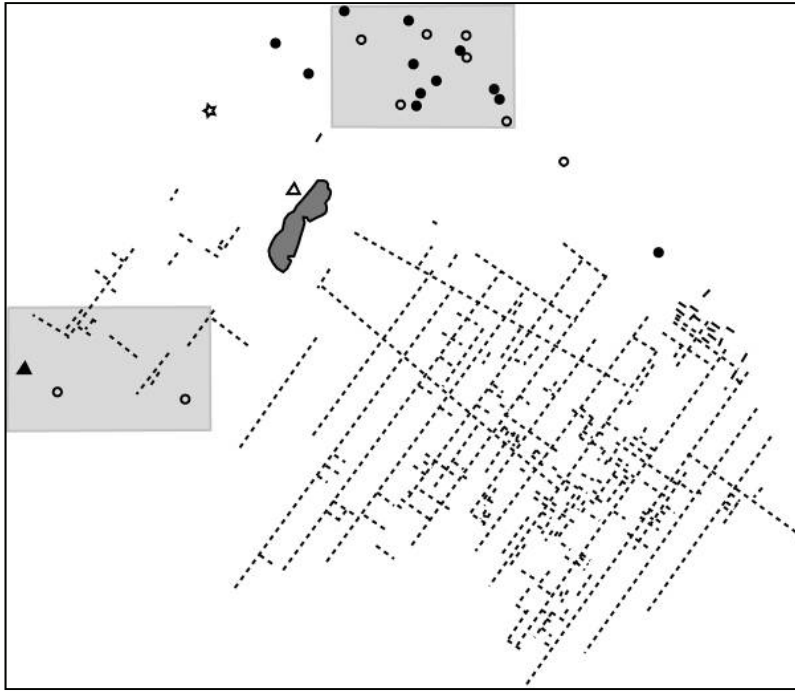


Fig. 13: Land division systems in the territory of Cales (adapted from Chouquer et al. , 192). Grey rectangles: Survey areas of Compatangelo 1985. Black dots: sites dating to the early colonial period; open dots: Republican sites without evidence for early colonial occupation; triangles: necropoleis.

A non-Roman measurement unit might also have been used in the territories of Paestum and Luceria. The *limitatio* of Luceria consists of a series of lines which are spaced irregularly. The southern part as described above is spaced at intervals of 16 *plethra*, but the distance between the six most northern *limites* is larger, c. 550 m. This is usually interpreted to correspond to 15.5 *actus*,⁴¹⁸ but this distance corresponds exactly to 2,000 Oscan feet (27.5m) or 20 *uorsus*.⁴¹⁹ Likewise, as Crawford has recently pointed out that, rather than being a distance measured in *actus*, the distance of c. 275 metres measured between the division lines recognized in the territory of Paestum, is best understood as corresponding to 1,000 Oscan feet or 10 *uorsus*.⁴²⁰

⁴¹⁸ See Volpe 1990, 209-213 for a good description of the *limites*. The two central *limites* are spaced irregularly.

⁴¹⁹ Pelgrom 2008, 364-365.

⁴²⁰ Crawford 2006, 65. For the identified lines see Gasparri 1989 and Gasparri 1990.

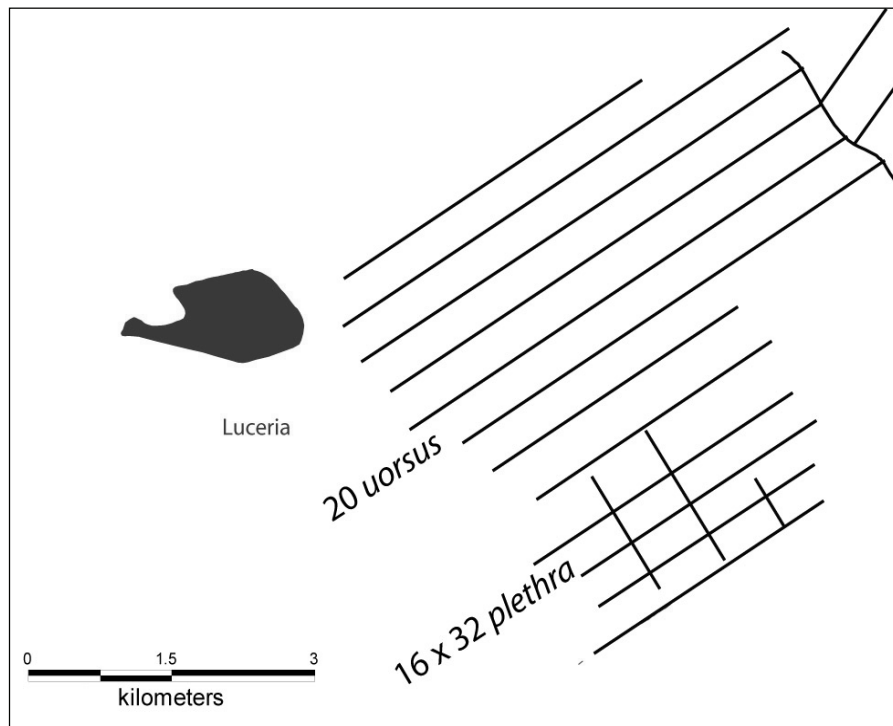


Fig. 14: Land division systems in the territory of Luceria

Alba Fucens and Norba

Parallel division lines spaced at a distance measured in *actus* have been recognized in only two Latin colonial territories of the fourth century: Alba Fucens and Norba. The *limites* of Alba are spaced at a distance of 12 *actus* and cover an area of circa 35,000 *iugera* (87.5 sq. km.). This system is usually dated to the foundation of the colony, mainly on the basis of its morphology.⁴²¹ However, Campbell argues that there are no clear reasons for dating this system to the foundation of Alba.⁴²² A passage in the *Liber Coloniarum II* describes a land division by *limites intersecivi* carried out in the Imperial period.⁴²³ One problem is that, according to the *Liber coloniarum*, the *limites* were spaced at 1,250 feet or less; this corresponds to an interval of 10.4 *actus*. This is less than the 12 *actus* separating the division lines which have been recognized. This discrepancy is not easily to explain, unless of course it is assumed that the passage in the *Liber* is corrupt. However, the fact this strange unit of measurement of 1,250 feet corresponds to 500 *gradus* (a *gradus* is 2.5 feet) makes the passage at least plausible. The only remaining question is why no trace of this latter division has survived in the modern landscape.

An interval of 12 *actus* also seems to have separated the division lines recognized in the territory of Norba which almost reaches the city of Cora (7000 *iugera*/ 17.5 sq. km.). Between the central axes, *limites intersecivi* which form *scamna*, have been identified. Chouquer, Clavel-Lévêque,

⁴²¹ See Liberatore 2001, 186-7 for a recent discussion and references.

⁴²² Campbell 2000, 429 n.196.

⁴²³ C 192.11-17.

Favory and Vallat argue it is unlikely that the grid dates to the period of its first foundation in 492.⁴²⁴ The morphology of the grid is similar to that of Alba Fucens, which might suggest they are contemporaneous.⁴²⁵ However, apart from the morphological argument, there is no additional evidence to support this dating.

4.5. First conclusions: land division systems in the fourth century

My review of land division systems recognized in colonial territories of the fourth century demonstrates that none of the traces recognized can be firmly dated to the early colonial period. Especially if Campbell's point that *strigae* and *scamna* were not necessarily created in the pre-Punic War period is accepted, plausible alternatives are possible in most cases. More fundamentally, the validity of the assumption that all recognized systems must be connected with Roman colonial land division programmes is open to question. Since on closer inspection the lines discovered often turn out to have been channels/drainage ditches or roads (or a combination of both), it is generally acknowledged that they improved the logistics and more importantly the hydrological situation of the area; therefore they boosted the quality of the agricultural landscape considerably. Hence, it is possible to question whether the presumed functional sequence (i.e. first demarcation and only then reclamation) is correct. This issue is also relevant to the dating of these lines because, if their prime function was indeed connected with water management and the reclamation of land, they are no longer necessarily linked to land distribution to colonists.

Almost without exception, the orientation of the 'division lines' is clearly determined by geomorphologic and hydrological considerations. They either follow the natural relief of the landscape and watercourses or are placed exactly perpendicular to them. The first alignment obviously helps to dewater the area quickly; the second (less frequent) orientation can be explained as a way to counter erosion. Furthermore, most systems are located in low-lying terrain; often even in areas known to have been marshes before the great land reclamation programme of Mussolini. It is obvious that these areas had to cope with disruption by water, at least seasonally. Clear cases are the traces recognized in the Pontine Plain, a notoriously wet, marshy area infested with malaria mosquitoes. Moreover, the geomorphologic research carried out in the Ager Falernus demonstrates that, before the process of colmatage commenced, the area was effectively a swamp (cf. above). The *limites* near Paestum are

⁴²⁴ Chouquer, et al. 1987, 99.

⁴²⁵ In general, evidence of ancient division lines around *coloniae priscae* is absent. Besides that in Norba, the only exception has been recognized by Hinrichs 1974, 40 in the territory of Nepet. The grid is characterized as a series of parallel stone walls, sometimes next to a road, between which minor stone field boundaries systems which divide the land into *scamna* of irregular size, are located. Hinrichs says the stone walls are comparable to those found nearby ancient Etruscan roads and, moreover, the technique closely resembles that used to construct the walls of Nepet. Therefore, Hinrichs believes them to be indicative of a very ancient land division system; possibly even pre-Roman. Castagnoli 1984, however, argues that the stone walls and connected land division are clearly modern constructions.

located in a very wet area, which was abandoned after the Roman period until major drainage schemes of the 1930s and 1950s again made the area suitable to agriculture.⁴²⁶

Hence, the evidence strongly supports the supposed hydrological function of these systems. Of course, this does not exclude the possibility that they are connected with Roman land distribution programmes. A combination of both functions (demarcation and reclamation) is certainly possible and has often been suggested. At the time of colonization, the land was made suitable to agriculture after which it was distributed to colonists. However, the evidence places question marks alongside this scenario; the grids measured in *uorsus* or *plethron* especially are not easily explained as Roman interventions. Even those possibly measured in *actus* need not always be Roman or colonial. On the basis of historical considerations, the evidence in the Hernician territory, for example, is difficult to explain as a Roman intervention. It is more probably that it reflects a local initiative. The supposedly early systems which are based on the *actus* are all located in Latial or Sabine/Aequian territory; for all we know, the original inhabitants of these areas might have used the *actus* as their unit of measurement, which makes it impossible to determine if the system was more likely of Roman or of indigenous origin. What is also striking is that all systems located in areas of Greek influence are not spaced in *actus* (Fig. 15). The differences in the unit of measurement used are, I believe, a strong argument against the view that these land divisions were constructed by Roman engineers.⁴²⁷ The grid of Luceria is a good illustration. The lines with an identical orientation are spaced at different intervals and different units of measurement were used. This strongly suggests that they were not created simultaneously as part of a single project, but developed more gradually.

⁴²⁶ On Paestum as a malaria-infested marshy area see Strabo 5.4.13. Many examples can be added: in Antiquity the mouth of the River Liris was a notoriously marshy area (in 88 Gaius Marius is said to have hidden from Sulla in the marshes of Minturnae (Livy *Per.* 77. 6)).

⁴²⁷ The fact that many systems of parallel division lines have been identified in landscapes which during the Mid Republican period were almost certainly not located in Roman territory strengthens this view. The examples are numerous. Around the town of Aquinum in an area of circa 10,000 *iugera* (25 sq. km.) a series of parallel lines 10 *actus* distant from each other have been recognized. The lines have the same orientation as the *kardo* of the town itself. (Chouquer, et al. 1987, 125) The town remained independent until the Social War, so it is difficult to connect the grid with Roman intervention. The supposed Roman colonial origin of the grid recognized by Chouquer to the west of Interamna Lirenas has also recently been questioned. A recent survey of the epigraphic evidence from the area has revealed that the *strigatio* identified covers large parts of the territory of Aquinum. If correct, this would make the hypothesis that this land division programme belonged to the early colonial period implausible. Either the territorial boundaries changed drastically in later times (considered improbable by Solin) or the *limitatio* identified does not belong to the colony proper (Solin 1993, 370, esp. n.16). To the north of the Samnite town Bovianum, a possible *scamnatio* has been recognized (Chouquer, et al. 1987, 147-149). A recurrent unit measures 13 *actus* on the short side and 24 on the long side. 6000 *iugera* (15 sq. km.) of land is divided in this way.

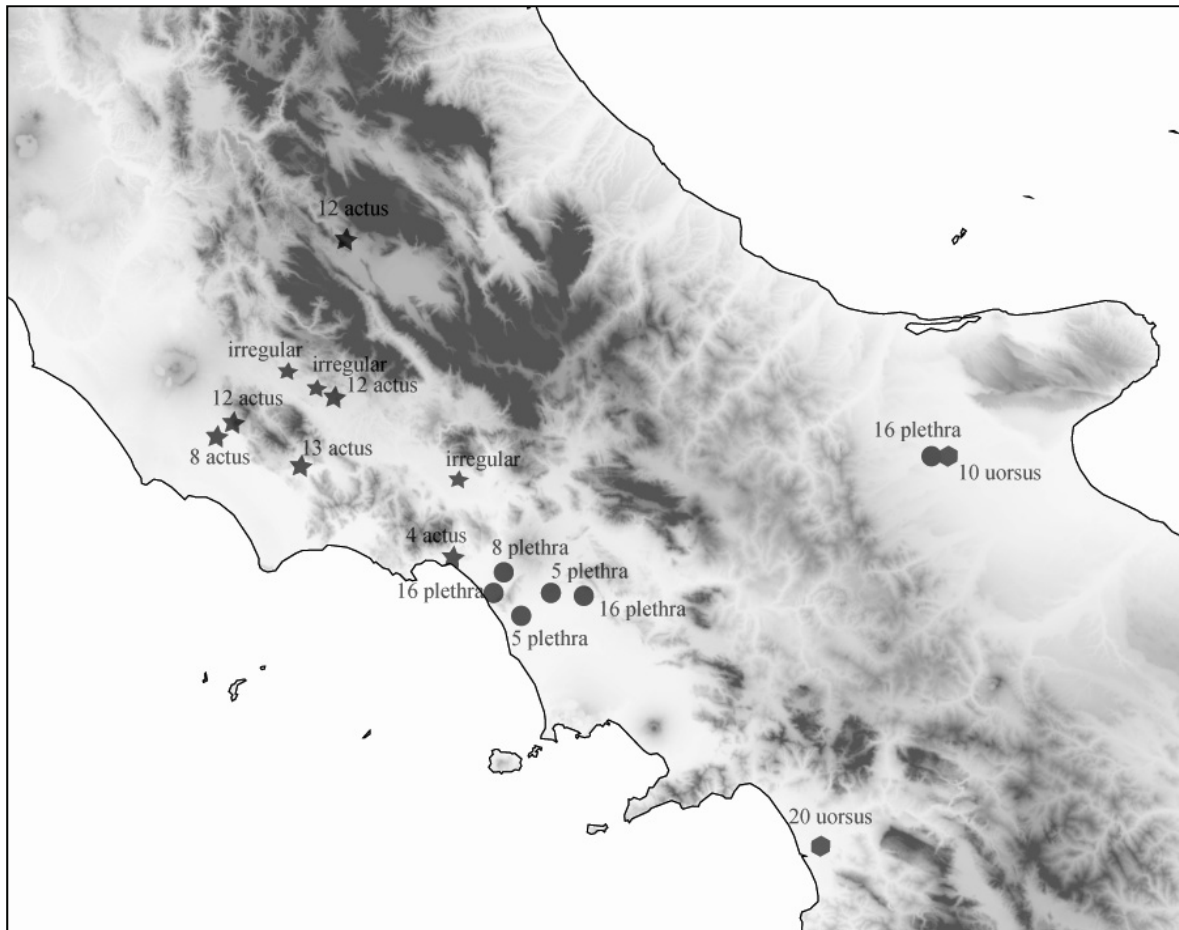


Fig. 15: Location of land division systems mentioned in the text.

The supposedly primary delimitation function of early ‘division lines’ has also been brought into question by a study of Moatti, who correctly observes that in order for a land division system to be effective, it needed to be guided and managed by an administrative system which would have kept records.⁴²⁸ Moatti argues that Rome did not have such a system before the second century. The absence of references to *formae* in the literary sources is especially significant. The *forma* was a graphic representation of the confiscated landscape on which the location of the various holdings was recorded. The *forma* (usually in bronze) was designed as a definitive document which could not be altered. For this reason, the names of proprietors were not added on the map, a system of reference codes being used instead. On different lists, it was therefore possible to record that Plot x (on the *forma*) belonged to person y. The map and lists had to be kept in an archive in a secure place (*tabularium*).⁴²⁹ Not only is there no evidence that such maps and lists were drawn up in the late fourth and early third century, the *Corpus Agrimensorum* explicitly states that a *forma* did not exist for various territories known to have been colonized in early times and needed to be made (for example, Graviscae, Antium, Sinuessa).

⁴²⁸ Moatti 1993, 79-98.

⁴²⁹ The first archaeological evidence for *tabularia* in Latin colonies also dates to the second century. In Cosa and Paestum adjustments were made to the Curia in this period in order to make place for storage rooms for archives. The remarkable fact is that no such place existed before that time (See Moatti 1993, 75 with references).

If Moatti is right that Rome did not possess a sophisticated apparatus for the administration of land before the second century, this also strongly questions the existence of rigid division systems in that period. Why would colonial *triumviri* have gone to the trouble of dividing the landscape rigidly into equal blocks if they did not record who received which plot? It makes more sense to connect the genesis of centuriation or other forms of land division with the development of an elaborate system of property administration.

4.6. Orthogonal grids in colonial landscapes of the third century

For the period after the conquest of the Po Valley, literary evidence of the existence of colonial landscapes which were divided in a regular fashion is convincing. The sources begin to report the division of land into equally sized allotments, the drawing up of *formae* and the existence of land surveyors.⁴³⁰ Therefore, the question which remains to be answered is if this change dates to the post-Hannibalic period or had begun earlier in the third century, for which very little literary information survives (the so-called ‘third century gap’). Some scholars believe there is good evidence which points towards an earlier adoption of this practice. The evidence will be reviewed below.

Cures Sabini

The most convincing example of an orthogonal land division system which was created in the third century is located in the territory of Cures Sabini. Around this old Sabine city, an extensive orthogonal grid has been identified which is based on a 10x10 *actus* module which enclosed 50 *iugera* of land (the technical term is *laterculus*).⁴³¹ On the basis of a careful study of the *Corpus Agrimensorum*, Muzzioli has argued that the most plausible date of construction of this grid is soon after the conquest of the area in 290. Her most important argument is a passage in the *Liber Coloniarum* II (C. 192. 19-27) which provides a good *terminus ante quem*. It states that the land was put up for sale by the *quaestores* and was enclosed in squares of 50 *iugera*, and that Caesar also ordered it to be measured out in *centuriae* and *limites*. Hyginus and Siculus Flaccus say that the *ager quaestorius* was land taken from the enemy (*ex hoste captos*) which was sold to the Roman people in units of 50 *iugera*.⁴³² The statement that captured land was sold does not necessarily imply it was put up for sale immediately after its capture, but the fact Livy (28.46) reports the selling of land in Campania by *quaestores* in 205

⁴³⁰ For the allotments see Table 13, on the *formae* see discussion above. The existence of surveyors (*finitores*) in the early second century is attested to in the prologue of *Poenulus* by Plautus 49-50 “Its site, its limits, its boundaries I’ll now lay down; for which purpose have I been appointed surveyor.” See also Pol. 3.40 and Livy 21. 25 on the *triumviri* of Placentia and Cremona, who had come to mark out the allotments (*qui ad agrum uenerant adsignandum*) and subsequently fled to Mutina. There is a enormous amount of literature on the different centuriation systems which have been recognized in the Po Valley and are dated to the early second century (e.g. Chevallier 1983; Schmiedt 1989. See for a recent synthesis, Guandalini 2001, with references).

⁴³¹ Muzzioli 1975; Muzzioli 1980; Muzzioli 1985.

⁴³² Hyginus C 82.23; Siculus Flaccus C 104.1.

makes it likely that the land near Cures, which is presented as the classical example of quaestorian land, was sold soon after its conquest in 290.⁴³³



Fig. 16: Land division systems in the territory of Cures Sabini (from Schmiedt 1989).

⁴³³ Muzzioli 1975, 226-228. A polygonal dry wall structure has also been recognized in the field on the place of the recognized land division lines. On the basis of the technique used, it is argued the structure must be connected with the first land division programme (Muzzioli 1975, 224 and tav. 1) However, the *Lib. Col. II* (C. 192. 19-27) suggests that dry-stone wall-structures were used in the Caesarian land division programme. Muzzioli convincingly refutes the view that Sulla sold the land in Cures, a theory for which no evidence exists (see for that view Rudorff, et al. 1852, 288, accepted by Bozza 1939, 175 n. 2 and Burdese 1952, 44).

In fact, in the literary tradition recounting the career of Dentatus there is an anecdote which might be connected to sales of land in plots of 50 *iugera*. Several sources describe how Dentatus refused to accept an allotment of 50 *iugera* which was granted to him by the Senate as he felt a citizen who was not satisfied with an allotment of the size which was given to the rest of the Roman citizenry (7 *iugera*) was a danger to the commonwealth.⁴³⁴ Although these reports resemble moralistic tales whose main purpose was to illustrate how virtuous the illustrious men of the Roman past were, there might be an element of truth in them. The detailed study by Forni reveals that Dentatus was the leader of a popular movement in Rome who, at the time of the great plebeian secessions (which apparently ended with the *Lex Hortensia*), propagated large-scale distributions of land to all citizens.⁴³⁵ This was opposed by conservative aristocrats who wanted to protect their traditional right of exploitation of conquered lands. As a compromise solution, it was decided that some of the territory would be sold (which in practice meant the propertied class could exploit it) and another part was distributed to the poor.⁴³⁶

Although the selling of land might indeed have been an arrangement which favoured the propertied class, it differed notably from the earlier system of dealing with conquered land, because acquisition through purchase, unlike *occupatio*, gave the possessor a secure title to land. It makes sense that the land which was to be sold to individuals was parcelled out in a durable manner which necessitated the construction of a land division system. Some support for this view is offered by a passage in Siculus Flaccus (C. 103, 34-104, 4) which reads as follows:

As the Romans became the masters of all nations, they divided up {*partiti sunt*} land captured from the enemy among the victorious people. But they sold other land, for example, the land of the Sabines, which is called 'quaestorian'; by establishing limites they divided it up {*eum limitibus actis diuiserunt*}, enclosing fifty iugera in parcels measuring ten actus square, and in this way sold it off through the agency of the quaestors of the Roman people. Afterwards, as larger areas captured from the enemy gradually became available, they divided up and allocated some of the land {*alios agros diuiserunt adsignauerunt*}

Although it would certainly be wrong to draw any far-reaching conclusion from this late text, it is still striking that Flaccus connects the practice of establishing *limites* with the selling of land, something which apparently had not been practised in earlier dealings with conquered land. Moreover, the suggestion is made that the practice was continued afterwards; lands were no longer only divided

⁴³⁴ Val. Max. 4.3.5; Vir. Ill. 33; Pliny (E) *NH* 18.18; Frontin. *Str.* 4.3.12.

⁴³⁵ Forni 1953.

⁴³⁶ Also Muzzioli 1975.

(*partiti*), but also allocated (*diuiserunt adsignauerunt*). Flaccus says this happened when large areas were captured. A likely candidate for such treatment is the annexation of the Po Valley in the late third and early second centuries. In fact, Hinrichs argues that the genesis of the practice of dividing land into *centuriae* of 20x20 *actus* is connected with the acquisition and reclamation of this vast territory.⁴³⁷ However, some scholars believe that colonies which were founded in the middle of the third century were also the subject of a large-scale land division programme.

Suggested early examples of colonial land division schemes in centuriae

Chouquer states that the oldest recognized examples of centuriation are not located in the Po Valley, but are situated in the territory of Ariminum.⁴³⁸ In the immediate surroundings of this town several 20 *actus* centuriation grids with different orientations, dated in the mid-Republican period, have been recognized. The most famous one is located to the west of Ariminum, around Caesena, and is generally dated in the late second/early first century.⁴³⁹ Chouquer has also recognized two previously unknown grids in the territory, both of which he dates to the third century. The first is located to the south-west of Ariminum and has the same orientation as the street grid of the town.⁴⁴⁰ According to Chouquer, the congruence between the orientation of urban street grid and that discovered in the countryside supports the view that the grid was constructed simultaneously with, or soon after, the foundation of the colony. An additional argument which supports this theory is that the grid is not orientated on the main road of the area: the via Flaminia which was constructed in the late third century. Chouquer argues this provides a plausible *terminus ante quem* as he believes it would have made most sense to orientate the grid on the consular road if it had existed at the time of the construction of the land division system.

A second centuration of 20x20 *actus* has been recognized between the Rivers Rubicon and Conca. This grid covers most of the putative territory of Ariminum (600 *centuriae* are reconstructed, c. 300 sq. km.). It has the same orientation as the via Flaminia which Chouquer suggests was constructed with it, or soon afterwards. The via Aemilia, which was constructed in 187, is considered an *terminus ante quem* on the basis of the fact that it has a different orientation.⁴⁴¹ Therefore Chouquer postulates the grid is best connected with the land division programme in the *Ager Gallicus* and *Picenus* which was promulgated by the *lex Flaminia* of 232.

Recently, Bottazzi has expressed some doubts about the dating of these grids. He believes that the orientation of the main axes of the centuriation system, considered the oldest, are not determined

⁴³⁷ Hinrichs 1974, 56-57.

⁴³⁸ Chouquer 1981. A 20x20 *iugera* grid has also been identified in the territory of Saticula (founded in 313) and dated by Johannowsky to the early colonial period (Johannowsky 1998). However, there are no concrete arguments for dating this grid in the late fourth century. According to Chouquer, et al. 1987, 156-159, the grid must be connected with a Sullan or triumviral veteran settlement.

⁴³⁹ Chouquer 1981. For description of the grid see page 846-850. For dating page 862. In total circa 200 *centuriae* could be reconstructed (c. 100 sq. km.).

⁴⁴⁰ But see Giorgetti 1980, 89-124 for a different interpretation and proposed orientation of the urban street grid.

⁴⁴¹ Cf. Bottazzi 1995, 350.

by the street grid of the town, but are based on the geomorphologic conditions.⁴⁴² As he notes, the transversal lines correspond to modern secondary roads, whose orientation has clearly been determined by the relief of the area; they are constructed parallel to the coast, following the contour lines.⁴⁴³ Moreover, the east-west lines have the same orientation as the River Marecchia. Therefore, it is possible that the land division lines and the street grid are accidentally orientated in the same way; independently of each other following the contour lines of the landscape. Bottazzi argues that it is more likely that the second centuriation grid dates to the period of the foundation of the colony. He postulates that when it reached the coastal area of Ariminum, the via Flaminia probably followed the course of an already existing road; one which was created soon after the foundation of the colony and which was used as the main axis for the land division programme.

The dating of the land division systems by both Chouquer and Bottazzi depends entirely on the theory that the congruency or divergence in the orientation of streets and land division systems are valid dating criteria. Such an argument is very shaky since there is no good reason for excluding the possibility that roads were used in later times as the main axis for the creation of new land division grids.⁴⁴⁴ Since Ariminum was re-colonized in the triumviral period, at a time in which land division in *centuriae* was *en vogue*, this possibility must be taken seriously.⁴⁴⁵ Neighbouring towns such as Pisaurum, Fanum Fortunae and Sena Gallicum have centuriations which are orientated on the coast line and major roads; these are generally dated to the late Republican/ early Imperial periods.⁴⁴⁶

Another instructive example is provided by the centuriation grids which have been identified in the twin colony to Ariminum, Beneventum.⁴⁴⁷ Here, Chouquer identified a 20x20 *actus* grid covering an area of 6,000 *iugera* (identical in size to the second grid of Ariminum). Surprisingly, Chouquer does not date this system to the early colonial period but connects its construction with a recorded settlement programme of L. Munatius Plancus after the Battle of Philippi.⁴⁴⁸ This assumption is based on a passage in the *Liber Coloniarum* which records the settlement of veterans here under a triumviral *lex*.⁴⁴⁹

Besides the 20x20 *actus* grid, Chouquer has also reconstructed the presence of yet another land division system with a different orientation (possibly orientated on the River Calore), which was based on a 16x25 *actus* (= 200 *iugera*) module; a unit which is recorded in the *Liber Coloniarum* and

⁴⁴² Bottazzi 1995, 340.

⁴⁴³ Bottazzi 1995, 333.

⁴⁴⁴ For example, Chouquer 1981, 862, dates a centuriation recognized to the north-west of the Marecchia, between the Flaminia and the Popilia, to the time of the construction of the via Popilia in the late second century. However, the grid is not orientated on the Popilia, but has the same orientation as the Flaminia.

⁴⁴⁵ Keppie 1983, 63.

⁴⁴⁶ For an overview of the location of these grids see Sisani 2007 452, tav. 6.

⁴⁴⁷ Chouquer, et al. 1987, 159-164.

⁴⁴⁸ Chouquer, et al. 1987, 164.

⁴⁴⁹ C 180. 15-16. "Beneventum, the colonia Concordia, encircled with a wall. Nero Claudius Caesar founded it. A right of way is not due to the people. Its land was allocated to veteran soldiers under a triumviral *lex*."

in Siculus Flaccus for the territory of Beneventum.⁴⁵⁰ This grid has been dated to the early imperial period on the basis of the passage in the *Liber Coloniarum* which records the foundation of a colony called Concordia in the territory by Nero Claudius Caesar. Chouquer thinks that this was very probably Tiberius (and not the illustrious emperor Nero Claudius Caesar Augustus Germanicus) who was charged with the realization of the large-scale land division programme of Augustus in Samnium and some other districts of central-southern Italy.⁴⁵¹

However, in a review of Chouquer's work, Patterson argues that it is unlikely that the late Republican grid was replaced so soon after its creation.⁴⁵² He remarks that the reference in the *Liber Coloniarum* also mentions a centuriation based on the 16 x 25 *actus* module in the territory of Vibo Valentia (a Latin colony of 193).⁴⁵³ This suggests that the grid at Beneventum also dates to its original foundation. Contradicting this, Livy says the territory of Vibo Valentia was allocated in lots of 15 *iugera* (the size recorded for *pedites*, the *equites* received allotments twice as large). Allotments of this size cannot be fitted into the recorded 200 *iugera* land division (13.333 plot per *centuria*). Moreover, besides Beneventum and Vibo, the *Liber* also records a similar grid for Velia.⁴⁵⁴ It is difficult to see on what occasion in the mid-Republican period this town, which remained an ally until the Social War, could have been colonized. As Chouquer suggests, the morphological similarities indeed point to a later large-scale settlement programme executed in Samnium, Lucania and Bruttium, possibly by Tiberius.⁴⁵⁵

⁴⁵⁰ C. 164, 20-21. Siculus Flaccus C 126, 15-17: "In the territory of Beneventum there are 25 *actus* along the *decumani*, and 16 along the *kardines*. Nevertheless, 200 *iugera* are enclosed by this type of measurement, but square *centuriae* are not thereby produced."

⁴⁵¹ Chouquer, et al. 1987, 163.

⁴⁵² Patterson 1991; also Campbell 2000, 404 n. 8; Torelli 2002, 74-77.

⁴⁵³ C 164, 16-17.

⁴⁵⁴ C 164, 9.

⁴⁵⁵ Also in the territory of Brundisium, traces of a 20x20 *actus* grid have been recognized. These are best visible in the area to the south-east of the colonial town centre between the Masserie Villanova and Cefalo, where a total of 16 *centuriae* have been recognized (slightly more than 8 sq. km.). Since large centuriated areas (in the classic 20x20 *actus* module) which are dated to the Gracchan period and later have been recognized in Salento and northern Apulia, the possibility that the system is of a later date cannot be excluded (Aprosio 2008, 97-10 with further references). Other traces of land division have also been recognized in the area immediately surrounding the colonial town centre. However, it is uncertain what the module was and to when it must be dated (Aprosio 2008, 92-101).

16 actus grids

In the territories of several colonial territories founded after the Pyrrhic War, land division systems have been recognized which are based on a 16 *actus* module and are dated to the early colonial period. The most famous example is that of the Latin colony Cosa. A particularly well-preserved *decumanus maximus* has been recognized in the Valle d'Oro. This road began at the 'Porta Romana' of Cosa but had a different orientation than the urban street grid.⁴⁵⁶ Other *decumani* have been recognized at a distance of 16 *actus* from the main axis.⁴⁵⁷ The *kardines* are less clear. The course of the via Aurelia between Cosa and the Albegna River is positioned perpendicular to the *decumani*, which suggests it was the *kardo maximus*. Some traces of other *kardines* which are placed at intervals of 32 *actus* from each other have been recognized. On this basis, a rectangular grid of 16 x 32 *actus* has been reconstructed.

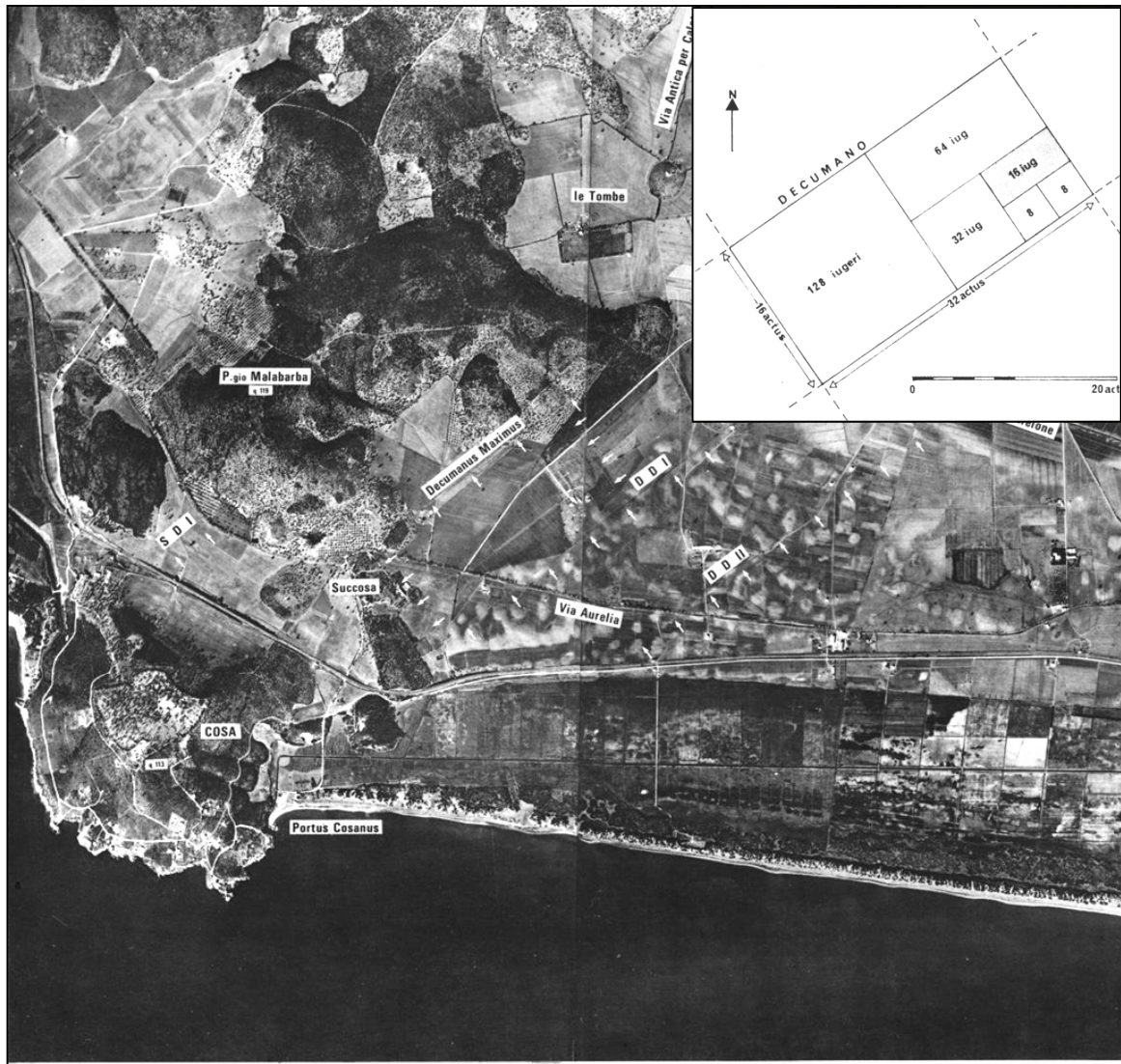


Fig. 17: Land division lines in the territory of Cosa (from Schmiedt 1989).

⁴⁵⁶ Castagnoli 1956. For a recent synthesis see Carandini, et al. 2002, 121-123 (with references).

⁴⁵⁷ Traces of these division lines have been identified in the field as dry stone walls (Carandini, et al. 2002, 121-123).

A second land division system based on a 16 *actus* interval has been recognized in the territory of the Latin colony of Spoletium (241). In this case, the *kardines* are also spaced at intervals of 16 *actus*, thereby forming an orthogonal grid of 16 x 16 *actus*. It is located to the north of the town, on both sides of the via Flaminia, which it crosses at an angle of circa 45 degrees.⁴⁵⁸

Both grids have been dated to the period of the foundation of the colonies in 273 and 241 respectively. For Spoletium, evidence for its early construction is found in the fact that the grid is not orientated on the Flaminia which was built in 220, but is intersected by it. In the case of Cosa, the main argument is that, in the neighbouring colony of Saturnia (founded 183), a centuriation with the same orientation has been recognized and dated in the second century. However, this grid was based on the classic 20x20 *actus* module. The argument is that, if the centuration of Cosa was of a later period (for example in the early second century when it was re-colonized), it would have been divided in the same manner as Saturnia.⁴⁵⁹ These arguments are not conclusive. As said above, the orientation on major roads (or lack of it) is a very weak dating argument.⁴⁶⁰ The orientation of the *decumani* of both land division systems corresponds closely to that of the major water courses in the area and it seems that hydrological considerations were a major factor in determining the orientation of the grids.⁴⁶¹ The fact that different modules were used in Saturnia and Cosa is not decisive either. The use of a different module (20 *actus*) can be explained as the result of the different size of allotments which were distributed.

Moreover, according to Chouquer's study, 16x16 *actus* grids are typical of late Republican land division programmes (the examples are numerous, for example, Gabii, Formiae, Acerrae, Atella, Venafrum,⁴⁶² Bovianum,⁴⁶³ Aesernia,⁴⁶⁴ Nola, Capua, Formiae and Neapolis).⁴⁶⁵ Interestingly, there is evidence that the land of Spoletium was distributed in that period. Florus says that the land of Spoletium was sold up by Sulla as a punitive measure.⁴⁶⁶ No direct evidence is recorded for a late Republican land division programme in Cosa. However, evidence for triumviral veteran settlement has

⁴⁵⁸ Sisani 2007, 93 with further references.

⁴⁵⁹ Carandini, et al. 2002, 122.

⁴⁶⁰ In the case of Cosa, the via Aurelia has the same orientation as the *decumani*, and in fact is supposed to have been its *kardo maximus* (Carandini, et al. 2002, 122). However, the via Aurelia was constructed in 252 at the earliest, two decades after the foundation of the colony and, in order for the early colonial date of the land division grid to be valid, must be considered to have conveniently made use of an existing pathway, which also functioned as the *kardo maximus* in the tract which crossed Cosan territory (Carandini, et al. 2002, 106, 132). Other possible dates of construction are 242 and 200. Also of interest is that the street grid of Cosa has a very different orientation than that of the centuriation.

⁴⁶¹ Sisani 2007, 93 n. 43.

⁴⁶² An Augustan colony there is clearly attested to by epigraphy Chouquer, et al. 1987, 141 n. 180 and 181 for references.

⁴⁶³ The foundation of a colony in the Late Republic/ Early Principate is attested to. It is unclear if it was founded by Caesar or Augustus. On the basis of the recurrence of 16x16 *iugera* grids in Augustan land division systems Chouquer, et al. 1987, 145-147 (with references) opts for the latter.

⁴⁶⁴ The *Liber Coloniarum* records the existence of Augustan *limites* in the territory (C. 182, 18-19). According *Lib. Col.* II C. 200, 15-16, Nero (the future emperor Tiberius) founded the colony. (On this Chouquer, et al. 1987, 142-144).

⁴⁶⁵ For 16x16 *actus* as typical of Augustan land division see Chouquer, et al. 1987, 253.

⁴⁶⁶ Florus 2.9.27. In fact, the *Lib. Col.* C 176 10-15 mentions that the territory of Spoletium was occupied in *iugera* according to the normal legal process in operation at Interamna Nahars and at Interamna Praetuttiorum. In nearby Hispellum a division into *iugera* which was allocated under a *lex Iulia* is also reported, (*Lib. Col.* C. 174, 24-26), See Campbell 2000, 410 n. 49 for further references.

been found in the nearby colony of Heba.⁴⁶⁷ This, in conjunction with the archaeological evidence for a re-foundation of the town in the Augustan period, after a phase of depopulation in the Late Republic, possibly as the result of pirate attacks, opens up the possibility that land was also divided in this period.⁴⁶⁸

5. Conclusion

The analysis of the literary evidence and the traces of land division programmes which have been recognized on topographical maps and aerial photographs reveal that there is little reason to assume that Roman colonial territories before the Pyrrhic War were orderly divided landscapes, settled only by autarchic peasants. The literary sources only begin to report the distribution of equally sized allotments large enough to support a family after the Second Punic War, and even then only in the case of Latin colonies. Moreover, the literary sources seem to suggest that Rome did not develop an elaborate system of land division and property administration before that time.

There is evidence that the practice of dividing territories using intersecting *limites* forming orthogonal grids commenced sometime in the course of the third century. The development of this practice might be linked to the introduction of a new policy of selling allotments of conquered land by the *quaestores*, which seems to have happened first in the territory of Cures Sabini in the third century. Not much later, the practice was also used in regular colonial land division programmes. Whether this happened before the annexation of the Po Valley cannot be established with any certainty. Those orthogonal grids which have been recognized in the territories of colonies of the mid-third century are not securely dated to the early colonial period and, without further archaeological research, it will remain uncertain whether these systems were created at the same time as the foundation of the first Roman colony, or in later periods.

⁴⁶⁷ For Heba see Fentress 1991, 149-151; Keppie 1984, 254-255, and Carandini, et al. 2002, 181-182.

⁴⁶⁸ Fentress 2003, 32-34 (with references). Moreover, the town was probably garrisoned against Sextus Pompey in 40.

Chapter 4.

SETTLEMENT ORGANIZATION

1. Introduction

‘After defining the town plan and centuriating a sufficient amount of land, the founders of colonies assigned house sites and fields to individual colonists through the process of sortition (sortitio), the casting of lots. {...} When sortition was completed, the officials led each colonist to his own portion, where they assigned him his fines, a transfer probably accompanied by some ceremony.’⁴⁶⁹

Although the sources do not state so explicitly, it is generally believed that most of the colonists developed their farms on their own allotments, which created dense, more or less evenly settled landscapes. However, as stated in Chapter 2, archaeological field surveys have not detected these regularly settled colonial landscapes. Generally, this absence is explained as the result of the inability of large-scale field surveys to detect the fragile traces of early colonial rural settlements. Indeed, new methodological studies have demonstrated that traditional surveys do often miss a considerable percentage of the smaller sites in a territory. These insights might suggest that colonial landscapes do in fact comply with the regularly settled peasant landscape model and that the results of the earlier site orientated surveys are sadly deficient and best discarded. Caution is advisable as this conclusion too easily accepts the regularly scattered model as fact. In the previous chapter, I have argued that it is by no means certain that regularly divided landscapes existed in the period before the Punic Wars. This conclusion also demands a reconsideration of expectations concerning the organization of settlements in colonial territories and indicates that other settlement patterns cannot be dismissed out of hand by assuming that they are the result of methodological problems.

This chapter is an analysis of the archaeological record of patterns of settlement and presents the different types of settlement arrangement which have been recorded in a synthesized form.⁴⁷⁰ The most interesting point is that the most field surveys seem to suggest that most colonial landscapes were not settled in a regular fashion as the conventional model dictates, but that settlement was concentrated in specific areas of the landscape. Such an arrangement shows a resemblance to more contemporary settlement systems in the central Apennines (cf. Figs. 18 and 19) and also finds some fragile support in the epigraphic sources.

⁴⁶⁹ Gargola 1995, 95-98.

⁴⁷⁰ For the classification of the different settlement landscapes into four settlement patterns I used an inductive strategy. However, with the exception of pattern 2, the categories correspond to common settlement typologies made in geographic studies (cf. Bunce 1982, 80-99). My pattern 1 corresponds roughly to his category of ‘village settlement’; pattern 2 to ‘linear pattern’ (sometimes also called ribbon settlement), and pattern 4 to ‘grid pattern’.

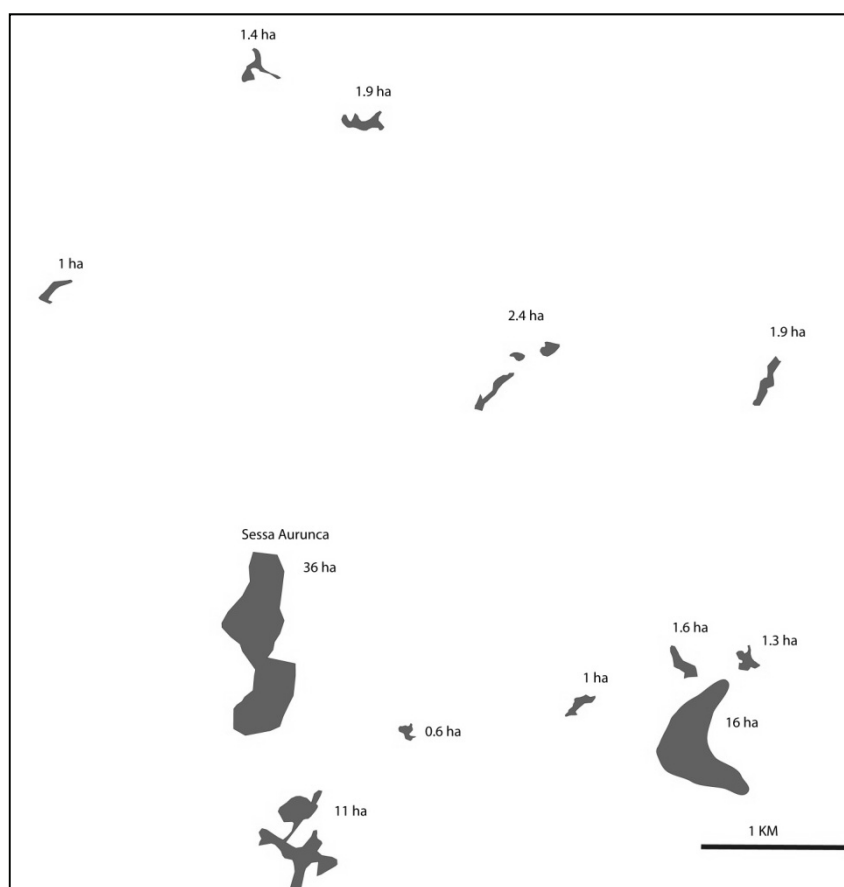


Fig. 18: Modern nucleated settlements in the territory of the modern town Sessa Aurunca (ancient Suessa Aurunca).

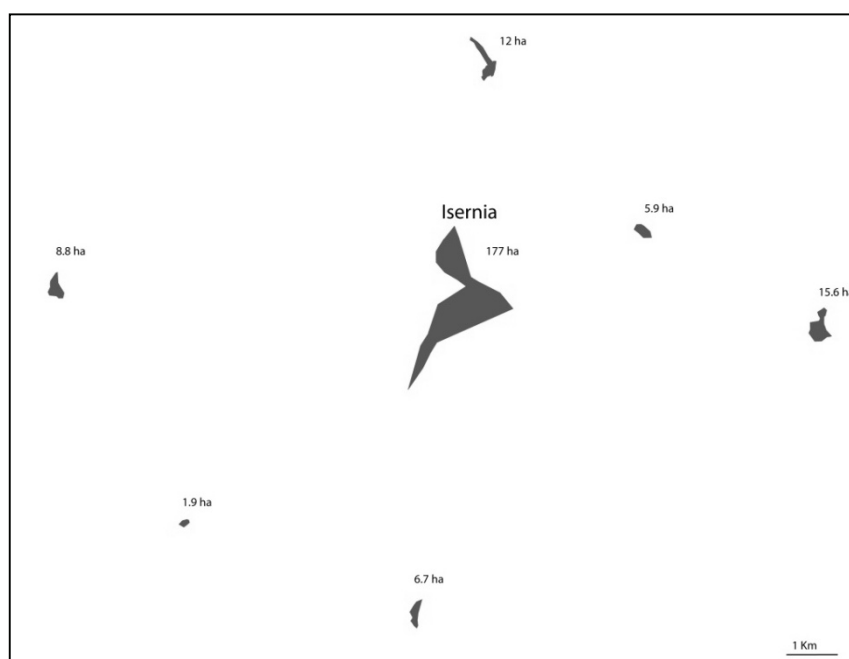


Fig. 19: Modern nucleated settlements in the territory of the modern town Isernia (ancient Aesernia).

2. Clustered or nucleated settlement patterns

A quick glance at the various field-survey maps of early colonial landscapes immediately reveals that, in a number of cases, recorded sites are dispersed unevenly over the territory investigated. Sites are often clustered together in restricted parts of the landscape, leaving large tracts of arable land unoccupied. This sort of arrangement recurs with great regularity in the territories of Latin colonies founded in the late fourth/ early third century.

For example, in the territory of Interamna Lirenas (see Fig. 20), two clusters of third-century sites have been identified: one in the immediate vicinity of the colonial town centre; the other in the Gari River area near the modern town of Sant'Angelo in Theodice. Between them lies an area extending for 5 km. in which no sites from this period have been found.⁴⁷¹ In the Ager Cosanus, a similar pattern can be discerned: a large cluster of third-century sites is located in a restricted part of the Valle d'Oro in an area between località le Tombe, Poggio Sette Finestre and Monte Alzato on the west bank of the Torrente Melone (see Fig. 21); other concentrations are found in the Valle Lunga and the area closer to the coast, between the Fiume Chiarone and the Fosso del Tafone.⁴⁷² In the Ager Calenus, only a limited area has been surveyed. So far, two sample areas have been explored: one to the north of the ancient town, in which a substantial number of third-century sites have been identified; the other around Sparanise, where almost no sites from this period could be identified (see Fig. 13).⁴⁷³ The striking difference between both sample areas suggests that a clustered pattern was also characteristic of this area. In the territory of Fregellae, concentrations of sites have been identified to the north of the modern town of Ceprano⁴⁷⁴ and in the Monticelli del Carmine area,⁴⁷⁵ whereas large empty areas are recorded between the town of Fregellae and the Melfa River.

This unexpected clustered pattern can be explained in two ways: either the recorded patterns are genuine or they are the result of specific taphonomic processes which have erased all or most traces of colonial habitations in particular areas. This last option is difficult to disprove without doing actual geo-archaeological research in the particular regions. However, the fact that the deviant pattern is attested to in different colonial landscapes spread out over most of Italy counts against the hypothesis that the unexpected arrangement of sites is only the result of geomorphologic processes. This impression is supported by the study of the geology, geomorphology and modern land use in the territory of Interamna Lirenas, which demonstrates that the recorded void between the two clusters of settlement “cannot be explained either by the soil types or by possible recent obliteration of sites”.⁴⁷⁶

⁴⁷¹ Hayes and Martini 1994, 188, fig. 43.

⁴⁷² Carandini, et al. 2002 fig. 40, and tav. 14.

⁴⁷³ Compatangelo 1985.

⁴⁷⁴ Coarelli and Monti 1998, 97, and tav. XXXVIII.

⁴⁷⁵ Hayes and Martini 1994, 181-2 and fig. 27.

⁴⁷⁶ Hayes and Martini 1994, 71 and Ch. 3 for the results of the geological and geomorphologic research.

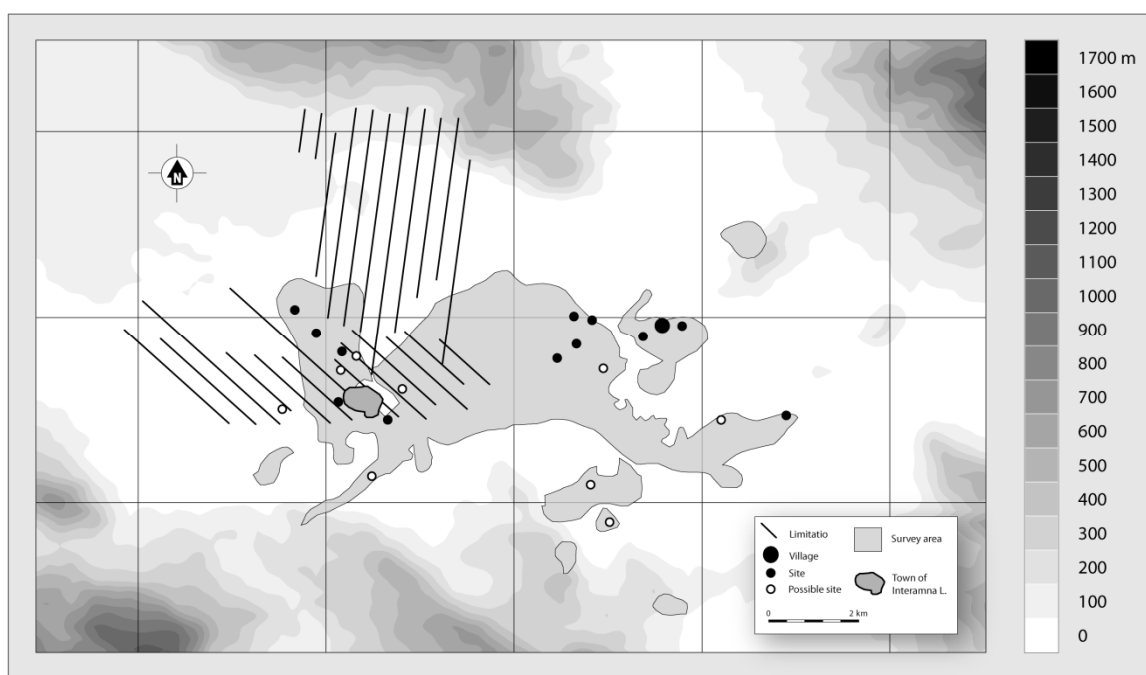


Fig. 20: The territory of Interamna Lirenas with sites dating to the 3rd century.

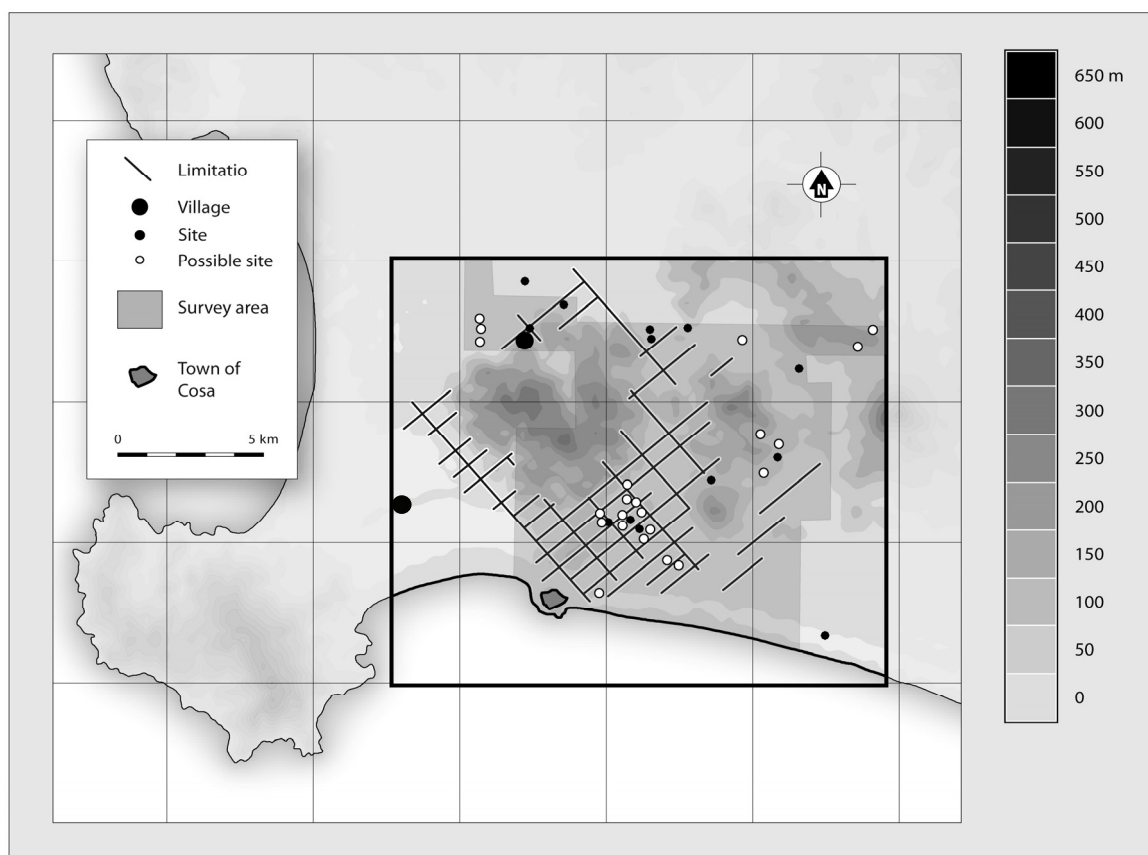


Fig. 21. The territory of Cosa with sites dating to the 3rd century.

In this context it is significant that several field surveys in the Greek *poleis* of Italy, using a very similar research strategy, did in fact bring to light dense and evenly distributed patterns of settlement dating to the fourth and the third centuries.⁴⁷⁷ This strikingly consistent difference between coeval landscapes which were investigated in the same manner suggests that the clustered or aligned configuration of mapped sites is not intrinsically related to a specific investigation strategy.

In a number of colonies the empty areas noted in the archaeological record of early colonial landscapes were soon filled with dense and scattered settlement. This discovery demonstrates that these areas were properly investigated and that potential post-depositional processes did not obliterate Roman settlement traces altogether. One of the best examples of this is Cosa: the large empty spaces which have been recorded for the third century were in soon filled with sites which occupy most of the territory in the course of the second and first centuries.⁴⁷⁸

If the pattern is genuine, what kind of settlement system does it reflect? One possible clue comes from the study of more recent settlement arrangements in the Italian Peninsula. In its outward appearance, the clustered organization of colonial sites displays some interesting similarities to the arrangement of settlement in the present-day Apennines. The rural landscape in the Apennine region is typically dominated by a dense network of villages and hamlets, often no more than a couple of kilometres from each other (see Fig. 18 and Fig. 19).⁴⁷⁹ The vast majority of farmers live in these modestly sized rural population centres but a limited number of isolated farmsteads can be found along the roads connecting the various villages; as a general rule, the farther away from the village, the fewer of these farms there are.⁴⁸⁰

A superficial look at the maps contained in most survey reports might suggest that the physical correspondence is limited to the clustering of farmsteads, whereas villages (the focal point of the Apennine settlement system described above) are often lacking in the archaeological site distribution maps. Again caution must be the watchword as these graphical reproductions of archaeological findings are often misleading, since the uniform dots on the maps give the inaccurate impression of a landscape of equally sized settlements. The reality behind these dots is often far more diverse and complex than suggested by the maps and usually requires a close examination of the site catalogue (if published satisfactorily) in order to be understood. A further potential methodological problem is that if nucleated settlements were located in the least fertile areas, such as hill tops which also offered natural protection, as they are today, a survey archaeologist could easily have missed them. One illustration of these problems is the fact that many of the (few) villages which have been identified in these areas are known only from rescue excavations inside modern villages or from accidental (or clandestine) discoveries.

⁴⁷⁷ See Carter 2006, esp. Ch.5. See also Burgers and Crielaard 2007 for a preliminary publication of the results of a survey conducted in the territory of Taras. In this last case, an intensive off-site survey strategy was employed.

⁴⁷⁸ Compare fig. 8.2 and fig 8.7 of Cambi 1999.

⁴⁷⁹ E.g. Frederiksen 1984, 31.

⁴⁸⁰ Of course, the similarity is only one of appearance and as both landscapes developed in very different political and economic contexts. No more fundamental parallel between both landscapes is implied here.

Despite these graphical and methodological problems, several villages have been recognized, or can plausibly be reconstructed, on the basis of the information available. A clear example can be found in the site catalogue of the territory of Interamna Lirenas: a site identified near the Gari River is described as a wide and heavy scatter of c. 6 ha without perceptible breaks (Fig. 20).⁴⁸¹ Of course, such a scatter is too large to be interpreted as a farmstead and is probably best described as a village or hamlet. Around it, probably along the roads leading to and from it, a couple of isolated farmsteads have been located. In the Latin colony of Suessa Aurunca, near the modern town of Cascano, just 2.5 km to the east of the colonial town centre, excavations have revealed part of a late fourth/early third-century ashlar wall which is very similar to the early walls of Suessa (Fig. 22).⁴⁸² These fortifications possibly enclosed a nucleated settlement of the same period. A couple of kilometres to the south-west of Suessa, at località Ponte Ronaco,⁴⁸³ another village has been identified from a large concentration of ceramics found in the area. In the territory of Cosa in the Valle Lunga⁴⁸⁴ and the area between the rivers Chiarone and Fiora three villages have been recognized inside or near habitation clusters.⁴⁸⁵ Finally, in the territory of Luceria, recent research has located at least three Republican villages covering areas varying between 2.5 and 11 ha (Fig. 22).⁴⁸⁶

⁴⁸¹ Site 526 in Hayes and Martini 1994, 230. Since the site has a long history stretching from the early Republican to Late Imperial period, it is not immediately obvious if the size described is relevant to the mid-Republican period.

⁴⁸² Arthur 1991, 40.

⁴⁸³ Talamo 1987, esp. 161, 177; Arthur 1991, 121, site S12. Around the villages which have been identified in the territory of Suessa Aurunca, various isolated farmsteads and tombs have also been recognized. Only a few of them can be securely dated to the third century.

⁴⁸⁴ Site Orb107 (Carandini, et al. 2002, site catalogue). Polygonal wall structures have also been identified in this area (Orb 111). For obscure reasons (polygonal masonry is usually considered an old building technique), these have been dated to the early Imperial period. On page 122 of Carandini, et al. 2002, the suggestion is made that the wall had some connection to the third century land division scheme, thereby opting for an early date of these walls.

⁴⁸⁵ Site PR 9 (4 ha); PR 58 (1.2 ha); PR 80.1 (3 ha): (Carandini, et al. 2002, site catalogue). Another village surrounded by smaller sites is found on the border of the Ager Cosanus: LC 8 (1 ha) and one outside the survey transects MAR 150.1 (2 ha). The Etruscan town of Orbetello was also populated during the Early Colonial period (Fentress 2009, 142). A reference in Castagnoli 1956, 157 is suggestive: he recognizes a significant part of a wall structure which enclosed the west side of località le Tombe, the area where a large cluster of third-century sites has been identified.

⁴⁸⁶ Volpe 2001, 344-5. Probably it is no coincidence that these villages have been detected and represented as such by a field survey project which aimed to understand the Late-Roman- Early Medieval landscape especially. According to the classical scenario described above, this time was characterized as a period of economic and political decline and connected nucleation of settlement (see for references and a description of the project in the Appendix 1). This list includes only the villages located in surveyed areas. Villages are also known in other colonial territories: in Aesernia a Republican village is located at 6 km to the south-west of the colonial town centre near the modern village of Macchia d'Isernia (Pagano 2004, 78). Near Hatria, several villages of the Republican period have been identified, e.g. S. Rustico (Basciano c. 20 km to the north-west of Hatria), Valviano (c.10 km to the west of Hatria), Case di Sante e Monteverde (Cellino), Penna S. Andrea, Guardia Vomano, Castilenti, and Città S. Angelo. Inscriptions found in two of these villages (S. Rustico and Valviano) reveal that in the late Republican period they were probably *uici* with their own form of administration. On these villages see Guidobaldi 1995, 264-277; Menozzi and Martella 1998, 42; Stek 2009, 146-154. Just beyond the probable northern limit of the territory of Benevento, Patterson identified a large site which can probably be interpreted as a village dating from the fourth to the second century (Site 10). Around it, several isolated farmsteads have been identified (Patterson 1988, 170-171). The remark in Crawford, et al. 1986, 50 is also interesting: "It may also be that the pattern of settlement in the territory of Fregellae was not so much one of single farms, but something close to villages: sites 51, 52 and 54 lie very close to each other"; idem for sites 13 and 12. For *uici* of the Fucine Lake which may have belonged to the colony of Alba Fucens see Stek 2009, 154-156.

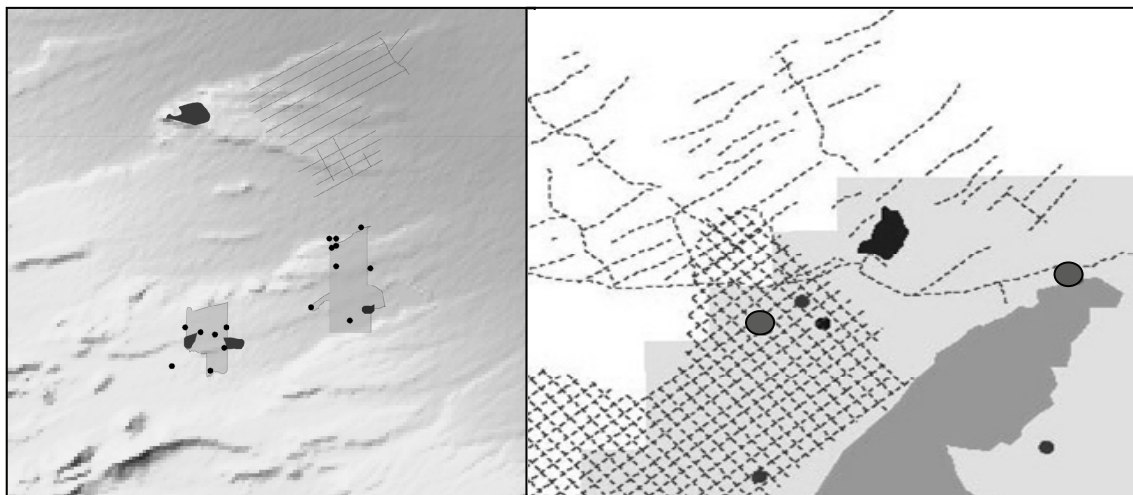


Fig. 21: The territories of Luceria (left) and Suessa Aurunca (right) with sites dating to the 3rd century. Large grey dots are nucleated settlements.

Nucleation of rural settlement is not unique to Latin colonies of the late fourth/ early third century, but can also be recognized in at least one viri-tane landscape colonized in the same period. In the Ager Falernus, four different reconnaissance projects have mapped only a few traces of early colonial isolated farmsteads but all projects have recorded the presence of nucleated settlements in their research area, some of which are datable to the fourth century.⁴⁸⁷ For example, in the territory to the east of M. Massico, only a handful of smaller sites dating to the late fourth and the third century have been recognized. However, in one area currently located in the cemetery of Mondragone, large quantities of mid-Republican black gloss pottery, bronze coins and an inscription dating to 43 A.D. mentioning a *pagus Sarclanus* were found.⁴⁸⁸ Excavations in the area have unearthed a large late Republican villa structure (known as the villa of *L. Paapius*)⁴⁸⁹ and a complex of dwellings or rooms

⁴⁸⁷ Considering the very extensive sampling strategy adopted by those surveys, the failure to detect small isolated farmsteads is perhaps not surprising. However, the detection of larger sites in these projects is significant.

⁴⁸⁸ Site Mondragone 10 in Vallat 1987, 328; M124 in Arthur 1991, 115. The inscription was found in 1937 during construction work to enlarge the cemetery. The exact find spot of the inscription is unknown, but it comes from the area. On this see Guadagno 1993, 439. According to a controversial interpretation by Johannowsky, the administrative centre of the *pagus* mentioned was located in nearby località la Starza where standing Roman architecture (including a *cryptoporticus*) is visible. (Johannowsky 1973, 151 n. 1; corresponds to site Mondragone 9 in Vallat 1987; M146 in Arthur 1991, 116.) These ruins, in his view, are best interpreted as a *complezzo pubblico* of the *pagus*, including a forum and a temple. He believes, for reasons unclear to me, that the original centre of the *pagus* was located close to the Savone River at the site of the sanctuary of Panetelle (for the sanctuary see Crimaco and Gasperetti 1993 (eds.), 87-247; site Mondragone 15b in Vallat 1987, 328; site M159 in Arthur 1991, 117) and that it was relocated to this area in the late second century (Johannowsky 1975, 31, n. 7). Most scholars have rejected the theory and have interpreted the architecture at *la Starza* as belonging to a villa (E.g. Vallat 1980, 387; Pagano 1980, 8; Guadagno 1987, 46; Arthur 1991, 115; more cautiously: Ruggi d'Aragnona and Sampaolo 2002, 152; Ruggi d'Aragnona and Sampaolo 2002, 157-158). See also Frederiksen 1976, 334, who rightly remarks that for Romans the *pagus* was a territorial concept and therefore should not (as often happens in archaeological studies) be connected directly to a nucleated settlement.

⁴⁸⁹ Ruggi d'Aragnona and Sampaolo 2002, 152-154.

of the same period, which have tentatively been interpreted as a *mansio*.⁴⁹⁰ No traces of a mid-Republican settlement were recorded during these excavations, but according to Arthur's site catalogue ceramics datable to the late fourth-early third century were present at the site.⁴⁹¹ The evidence he recorded for several cemeteries dating to this early colonial period which are located around the settlement is also suggestive.⁴⁹²

Another large Roman settlement has been recognized in the *Pineta Nuova*, located 9 km. to the east of Sinuessa. In an area of 1.5 hectares, large quantities of building materials, tiles and pottery have been recognized, including quite a few fragments of late fourth-early third century black gloss ceramics. Crimaco believes that the most likely identification of this site is the *uicus Caedicius*, known from the literary sources and from epigraphy.⁴⁹³

Finally, a third, very large village has been recognized during a recent survey farther upstream on the Volturno River.⁴⁹⁴ In an area of 25 sq. kms, eighteen Republican sites were mapped. Only four of these produced pottery datable to the late fourth-early third century.⁴⁹⁵ One site (Site 2) is a very extensive scatter, measuring 23.4 hectares. In this area, several inscriptions and architecture dating to the Imperial period have been found.⁴⁹⁶ The precise chronology of the site is uncertain, but the fact that several tombs of the third century have been recognized in the area strongly suggests occupation of this site in the early colonial period. Unfortunately, the size of this settlement in the early colonial period remains uncertain.⁴⁹⁷

Regrettably, none of these villages recognized in Latin colonies and in the Ager Falernus has been properly excavated, therefore virtually nothing is known about these nucleated settlements.⁴⁹⁸ A regrettable consequence of this gap in the knowledge is that at present it is impossible to estimate the number of people dwelling in these places and, more importantly, that nothing is known about their

⁴⁹⁰ Ruggi d'Aragnona and Sampaolo 2002, 155-159.

⁴⁹¹ Arthur 1991, 115 (M124).

⁴⁹² Sites M 116; M 128; M152; M 170.

⁴⁹³ Crimaco 1991, 55-56, Site 5. The plausible localization is based on a passage in Pliny (*NH* 14.8) who states that the *uicus* was located 6 miles from Sinuessa and 4 miles from where the *Faustiano* commences. The existence of a *uicus* of this name is corroborated by an inscription of the Augustan period found in the tower of the cathedral of Carinola which mentions *colonis Senuisanis et Caesicianis omnibus* (CIL X 4727). See Guadagno 1993, 442-444 for a recent discussion of the inscription). Other less likely suggestions for the location of the *uicus* are: Ponte dell'Impiso (Arthur 1991, sites M59-60); Torre del Paladino near a Roman Mausoleum (Johannowsky 1975, 22). Another nucleated settlement mentioned in the literary sources which, however, has not yet been convincingly localized is the *uicus Petrinus* (Cic. *Fam.* 6.19; Hor. *Epod.* 1.5). Livy also mentions that, at the end of the third century, Hannibal's troops pillaged the Ager Falernus as far as the *Thermae Sinuessanae* (Livy 22.8). A settlement is indeed known from the territory of Sinuessa with that name (CIL X 6870). However, archaeological investigation in the area has not been able to corroborate the putative early beginnings of this settlement which flourished in Imperial times (Arthur 1991, 62). It is doubtful whether the recorded *uici* of the Ager Falernus date back to the late fourth/ early third century. The epigraphic and literary evidence dates from the late Republican/ early Imperial periods, and therefore it is entirely possible that the *uici* recorded are institutions which were created as part of the administrative reorganization of Italian communities in this period.

⁴⁹⁴ Guandalini 2004.

⁴⁹⁵ Sites numbers: 2, 12 and 31.

⁴⁹⁶ Guandalini 2004, 15-17.

⁴⁹⁷ Guandalini 2004, 63-64.

⁴⁹⁸ Besides the already mentioned unpublished excavation of the fortification walls at Cascano, the only properly excavated village site inside a Latin colonial territory of which I know is S. Rustico Basciano. A large number of evenly distributed houses have been found alongside a large road around a sanctuary, whose monumental phase dates from the late second century. An inscription mentioning two *magistri* (probably *magistri uici*) has also been found. However, all the excavated structures date from the first century (see Menozzi and Martella 1998, 42-3 with further references).

ethnic and socio-juridical background. As this thesis will make clear, the ethnic question is of special interest because villages are often associated with the indigenous people who continued to live in the colonial territory.

Vicatim habitantes?

Despite the uncertainty about the socio-juridical position and number of natives in colonial territories (see Chapter 5), in archaeological studies it is often assumed that the indigenous inhabitants can be distinguished from the Roman/Latin colonists on the basis of their settlement customs. Whereas the colonists are supposed to have lived on their holdings distributed regularly over the colonial territory, the indigenous component is thought to have dwelled in villages (see again Fig. 4 for a clear illustration of this view). This concept is rooted in a more general theory about settlement organization in ancient Italy in which a clear distinction is supposed to have existed between the various non-urbanized Oscan people living in villages and the Greco-Roman world of city-states characterized by urban centres and those rural territories settled in a regular fashion. The supposed difference in settlement organization is not a modern invention but can also be found in the writings of various late Republican and Imperial historians. Livy, for example, when he describes the Samnites speaks of these rude highlanders as *uicatum habitantes* (9.13), contrasting them with civilized communities acquainted with an urban way of life.⁴⁹⁹ This contrast is obviously an anachronistic and ideological construct which cannot be accepted at face value.⁵⁰⁰

It is extremely difficult to determine the ethnic or social status of the people inhabiting the various villages detected during survey campaigns. In a few cases, for example in the Ponte Ronaco village near Suessa Aurunca, settlement continuity from the Iron Age into the Roman period suggests that the inhabitants were of indigenous origin. Their status remains uncertain, but the discovery of a bronze coin of the third century bearing the legend SUESANO suggests that economically at least they had contacts with the colony.⁵⁰¹ Some villages in the Ager Cosanus appear on archaeological maps as new foundations, which makes them more likely to have been the dwelling places of migrant farmers.⁵⁰² Nevertheless, this still does not rule out the possibility that these new villages were the settlements of indigenous farmers who were relocated to these areas by the Romans.⁵⁰³

There is some epigraphic evidence dating to the third century which might suggest that some colonists lived in villages. The evidence consists of a third century inscription on a black gloss *patera* which reads: 'K.SERPONIO CALEB.FECE.VEQO ESQUELINO C.S.'⁵⁰⁴ and of several painted black

⁴⁹⁹ See also Tac. *Hist.* 4.64 for a similar opinion.

⁵⁰⁰ Cf. Frederiksen 1976, 341-2. See also Dench 1995, esp. 130-4.

⁵⁰¹ Talamo 1987, esp. 161, 177); for the coin see Arthur 1991, 121, Site S12.

⁵⁰² E.g. Carandini, et al. 2002, sites LC 8 and Mar 150.1.

⁵⁰³ See for the latter explanation for example Carandini, et al. 2002, 110.

⁵⁰⁴ CIL I,416. For the *patera*, which is now in the Museum of Naples, see Pagenstecher 1909, pl.13. On the *praenomen* Kaeso see Bispham 2006, 88, note 78 with further references. Views on the exact date of the *patera* differ; but all plump for pre-Hannibalic.

gloss ceramics (so-called *pocula deorum*) from Ariminum on which *uici* are mentioned.⁵⁰⁵ Conventionally, these *uici* are interpreted as referring to urban districts. From this perspective, the colonies imitated the urban organization of Rome, which was divided in several *uici* from at least the mid-Republican period and thereafter.⁵⁰⁶ At first sight this reading, which fits well with the ‘Gellian’ view of colonization, is strongly supported by the fact that several *uici* attested to in colonies are named after important localities in the metropolis, usually after one of the Seven Hills.⁵⁰⁷ The only mid-Republican example is the *uicus Esquilinus*, but in inscriptions from Cales and Ariminum dating to the early Imperial period a *uicus Palatius*, *Germalus*, *Aventinus* and *Velabrus* are mentioned.⁵⁰⁸

On closer inspection, the case arguing for a mid-Republican origin of colonial *uici* which copied Roman topography is less firm than is often suggested. There is a remarkable correlation between the distribution of urban *uici* named after the hills of Rome and triumviral or Augustean colonization.⁵⁰⁹ Since both Cales and Ariminum were re-colonized in the late Republican/ early Imperial periods, it is possible that at least those *uici* which are recorded on inscriptions of the late Republican and Imperial periods were created during the triumviral reorganization of these towns.⁵¹⁰

The only piece of evidence which cannot be explained in this way is the *vego Esquelino* inscription. However, although the inscription proves the existence of an Esquiline *uicus* in the Mid-Republican period, it is uncertain whether it refers to an urban *uicus* in the colony of Cales. The provenance of the *patera* mentioning the *uicus* is unknown and it has been suggested by Mingazzini that *Calebus* refers to the birthplace of the potter, while *Vego Esquelino* is the place of production (namely, the Esquiline in Rome). He argues that adding one’s ethnic identity is only meaningful if one works outside one’s place of origin.⁵¹¹

Even if it is accepted that the practice of naming colonial *uici* after important places in Rome began in the Mid-Republic, this does not necessarily imply that these *uici* were urban. The nostalgic sentiments which motivated the colonists to copy Roman topography could be used in both urban and rural contexts. Only if the view that colonial *oppida* were miniature versions of Rome and that their internal organization mirrored that of Rome is accepted, does the urban thesis make most sense. If

⁵⁰⁵ On these ‘pocula’ see Franchi De Bellis 1995 and Stek 2009, 138-145. The word *veicus* is recorded on three ceramic fragments; two mention *pagi*.

⁵⁰⁶ The most explicit example is Coarelli 1995, who sees a gradual increase in the number of colonial urban *uici* which corresponds to the division of Rome. For a critique of this theory see Stek 2009, 124. The urban thesis is accepted by Bispham 2006, 87-8.

⁵⁰⁷ Examples below.

⁵⁰⁸ CIL X, 4641; CIL XI, 419; CIL XI, 421.

⁵⁰⁹ Bispham 2000, 158, n.5, with further references; Bispham 2006, 87-8.

⁵¹⁰ Keppie 1983, 15, 20 67 (Ariminum). See Antonelli 2006 for the view that Ariminum was re-colonized by Sulla. On Cales see Chouquer, et al. 1987, 192-194.

⁵¹¹ Mingazzini 1958. The thesis is criticized by Sanesi 1978. Her main piece of evidence militating against the Mingazzini’s explanation is the *uicus Palatius* of Cales. As discussed above, this could be explained as the result of the late Republican re-colonization. Another argument is that there is archaeological evidence of the production of relief black gloss pottery in Cales. This fact does not necessarily prove that Kaeso Serponius worked in Cales (maybe he learned his trade there). During a survey of Cales (Pedroni 1990, 177-183), various pottery sherds were found which were signed by the potter; among the many names no Serponius is recorded (they are mostly Atilii, Gabinii and Paconii). Interestingly a famous potter of this period, Lucius Canoleius, mostly signed his vessels with ‘L. CANOLEIOS L. F. FECIT CALENOS’; no *uicus* is added. See Pagenstecher 1909, 87-90.

doubt is cast on the ‘Gellian’ model, the urbanity of these *uici* becomes less evident. Moreover, an important argument against the urban thesis is the fact that colonial *oppida* were relatively small, so that there is no easy answer for the sub-division of these centres into separate quarters.⁵¹² This fact is bolstered by the lack of archaeological evidence of the existence of developed and densely populated urban centres (cf. Chapter 2).

An interesting case which militates against the theory that the Calene *uici* were urban has been made by Gaudagno. He argues that a rural location of the *uicus Palatius* is supported by medieval documents mentioning a toponym *Palaczu*, probably located at the western fringe of the Ager Calenus, possibly alongside the via Faleria. He believes that the fact that none of the numerous other inscriptions found at Cales contains any reference to these or other *uici* undermines the urban hypothesis to an even greater extent.⁵¹³

The most convincing argument for a rural location of at least some mid-Republican colonial *uici* has recently been made by Stek.⁵¹⁴ He draws attention to the fact that some of the mid-Republican *uici* for which epigraphical evidence is available can be securely located in the countryside. These rural *uici* are conventionally located outside colonial territories and interpreted as entirely different entities: namely, as the typical settlement structures of indigenous populations. As such, they are not included in the discussions about the location of colonial *uici*. However, a juridical study by Tarpin has convincingly demonstrated that the *uicus* was a Roman administrative institution and not some form of indigenous organization as was previously believed.⁵¹⁵ If this view is accepted, the presumed distinction between colonial and non-colonial *uici* no longer holds and the fact that some epigraphically attested *uici* can be located in the countryside becomes relevant to the discussion about ‘colonial’ *uici*.

Stek believes that some of these rural *uici* are best understood as new communities which were created as part of colonial territorial organization and in some cases even as settlements of Roman colonists.⁵¹⁶ The best arguments can be made for the rural *uici* of the Ager Praetuttianus and the Lacus Fucinus areas. In part because of the conviction that rural *uici* were native institutions, these areas are generally considered part of indigenous territories, either inhabited by enfranchised natives who were accorded *civitas sine suffragio* (for the Praetuttian area) or by allies (Lacus Fucinus which is considered part of the Marsic territory). Stek rejects this and argues that these *uici* are more likely to have been newly established Roman communities which were in some way dependent on the nearby Latin colonies of Hatria and Alba Fucens. This is suggested by their close proximity to Latin colonial towns and also by the cults and the magistrates which are mentioned in the *uicus* inscriptions. Stek

⁵¹² E.g. Mingazzini 1958.

⁵¹³ He also questions the urbanity of the Esquiline *vicus* (Guadagno 1993, 432-434). The name of this *vicus* could also be interpreted as referring to an outside settlement (as opposed to *inquilinus*). For a critique of his arguments see Tarpin 2002, 87 n.2, who is particularly sceptical about the *inquilinus* argument.

⁵¹⁴ Stek 2009, esp. 123-170.

⁵¹⁵ Tarpin 2002.

⁵¹⁶ Stek 2009, 168-170.

argues that it would be better to understand the *queistores* and *duumviri* mentioned in these texts, who were previously interpreted as Romanized indigenous administrative functions, as Roman or even colonial magistrates. Likewise, the cults attested to, for example those of *Victoria* and *Valetudo*, are unlikely to have been indigenous and would be best assigned to a Roman ideological context. That of *Apollo*, which is attested to in both the *Lacus Fucinus* and *Ager Praetuttianus* areas, was also observed in *Alba Fucens*, in the temple of *San Pietro*, and is more generally known to be an important colonial cult. More tentatively, Stek has suggested that the *pocula* in *Ariminum* could have been used in a ritual which periodically re-affirmed the close ties between these rural settlements and the urban centre, whose working was similar to the later rituals of the *paganalia* and *compitalia*.⁵¹⁷

The ethnic background of the people inhabiting these *uici* cannot easily be determined on the basis of the epigraphic evidence. Most of the names of officials recorded in the *Fucine Lake uici*, for example, such as *Salvius* and *Statius*, are fairly generic in Central Italy and shed little light on the issue of ethnicity. In contrast, the gentilician name *Magios* seems to have originated in Campania and might be tentatively connected with a person with a Roman or colonial background. Other names, such as *Annaedius*, are more likely to have been of Marsic origin. Stek therefore suggests that these *uici* were ethnically mixed-communities, but that they were entirely Roman from a political and juridical point of view.

In a nutshell, it is possible to draw a conclusion that the traditional view that epigraphically attested colonial *uici* were exclusively urban districts is no longer tenable. There are strong reasons to believe that at least some of these *uici* were extra-urban agglomerations, which, as the *pocula* of *Ariminum* clearly demonstrate, were ritually connected with the colonial towns. The precise political status and ethnic background of the people living in rural *uici* has to remain uncertain for the time being. The data suggests that they were strongly orientated towards Roman culture, but whether they were colonists or enfranchised and Romanized natives, or a combination of both, cannot be established on the basis of the epigraphic evidence available alone. On the other hand, the view that the *vicani* included colonists is supported by the analysis of the archaeological data which seems to suggest that Latin colonial territories were predominantly settled in a clustered manner.

⁵¹⁷ It is interesting to note that besides *uici*, there are also *pagi* mentioned on the *pocula deorum* (see Franchi De Bellis 1995).

3. Scattered landscapes of pre-Roman origin with evidence for nucleation

Several areas affected by Roman colonization programmes were already densely settled with isolated rural farmsteads in the pre-Roman period. In most cases, these landscapes were not subjected to any dramatic changes after the colonization of the area, and seem to have flourished instead. Clear examples of such settlement patterns have been found in the territories of the old Latin colonies in the Pontine area, in the areas belonging to colonies founded in ancient Greek *poleis* and in some areas in Sabinum. Despite this general trend of settlement continuity, evidence has been found of the foundation of larger, sometimes fortified settlements in the early colonial period.

For example, in the territory of Fidenae two new, large hill-top sites measuring over 1 hectare in size were founded in the early colonial period (Fig. 22).⁵¹⁸ According to Quilici and Quilici Gigli these sites were likely Roman strongholds positioned on the northern boundary of the confiscated territory.⁵¹⁹ Likewise, in the densely settled territory of Norba, a fortified settlement measuring 2.5 hectares has been identified. The origins of this site lie in the so-called Post Archaic period (500-350), which corresponds to the phase of Roman colonization of the area.⁵²⁰ Two modestly sized Archaic settlements (Colle Gentile and Serrone di Bove) also expanded markedly in this period and were fortified using polygonal masonry (Fig. 23).⁵²¹ The survey carried out around the *oppidum* in Colle Gentile reveals clearly that early colonial sites cluster around the *oppidum*.⁵²² In the territory of Signia, two nucleated settlements dating to the late fifth and the fourth century have been recognized in the *Muracci di Crepadosso* and *Colli San Pietro* areas.⁵²³ Slightly later is the large settlement of *Colle Majorane* which flourished in the fourth-third century. On these sites evidence of cultic activities has been recognized which in some cases predates the settlements evidence (6th century).

⁵¹⁸ Quilici and Quilici Gigli 1986, 392 (Sites 114 Casali Redicicoli and 245 Casali Boccone).

⁵¹⁹ According to the reconstruction of the researchers, the southern part of the territory of Fidenae was confiscated, although the area to the north remained the territory of the people of Fidenae.

⁵²⁰ Van Leusen, et al. 2003-2004, 337-338, site 10532 (La Murella) with references.

⁵²¹ Van Leusen, et al. 2003-2004, 338, sites 10533 and 10595, with further references. The sites (including 10532) were not located in the survey transects of the Groningen University, but were recognized in previous topographic studies (especially Saggi 1977, Quilici-Gigli 1991). Site 10533 is located to the south-east of Norba on the Colle Gentile; site 10595 is located to the west of Norba and covers 0.8 hectares (Saggi 1977; Quilici-Gigli 1991).

⁵²² Van Leusen, et al. 2003-2004, 317, fig 8.

⁵²³ Cassieri and Luttazzi 1985, 202-203.

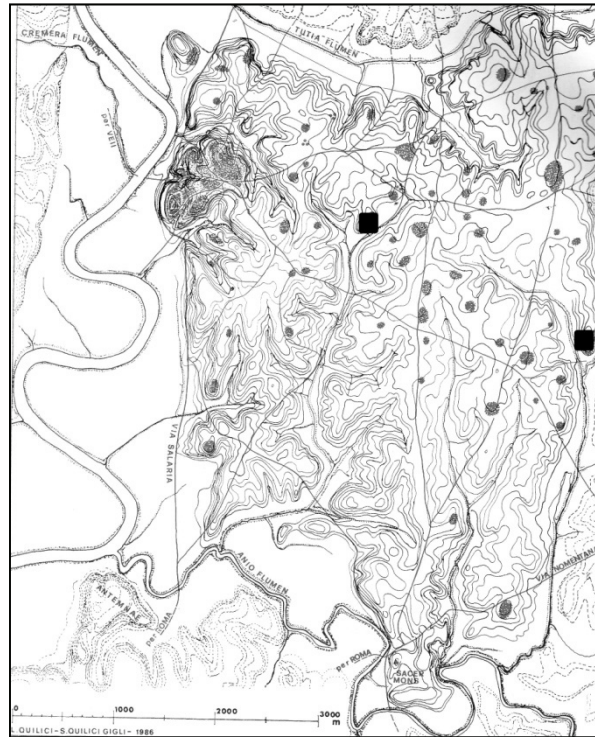


Fig. 22: The territory of Fidenae in the early colonial period (5th century). Black rectangulars: newly founded hill-top sites.

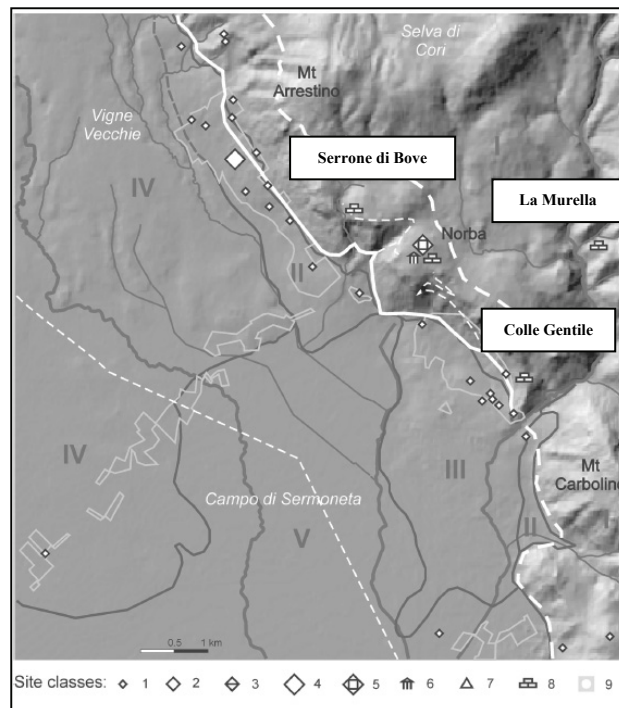


Fig. 23: The territory of Norba in the early colonial period (500-350 B.C.). 1. Simple rural site; 2: modest rural site; 3: elaborate rural site; 4: large site; 5: large complex site; 6: cultic site; 7: tomb(s); 8: defended site; 9: road.

In these newly appearing fortified hill-sites it is tempting to recognize the settlements of the colonists which could consequently be considered early examples of the multiple-core nucleated colonial settlement system which I have proposed for the Latin colonies founded after the Latin War. On the basis of the available archaeological work, such a hypothesis is difficult to test. The appearance of nucleated settlements in this period is not specific to colonial territories and hence is just as likely to reflect general development in the settlement system. Furthermore, the few traces of material culture found in these settlements do not point convincingly either to colonists or to indigenous inhabitants.⁵²⁴

Some very fragile and indirect support for the view that these strongholds could be colonial settlements comes from the literary sources. As will be shown in Chapter 5, several accounts in Livy and Dionysius strongly suggest that the foundation of a colony in this period did not involve a total reorganization of the conquered territory, but should be seen as the addition of a small body of migrant settlers who shared the territory with the remaining indigenous populations. Moreover, there is information that colonists were sent to these places as garrisons to make sure these areas would remain under Roman control.⁵²⁵ Within such a strategic framework, a bi-polar settlement model of scattered (unprotected/ indigenous) versus fortified (protected/ Roman colonial) makes some sense. However, the reports about early Roman colonization of these late Republican historians are unreliable and several scholars have argued that the supposedly strategic function of these settlements is anachronistic.⁵²⁶

Densely populated landscapes have not been recognized in the last two colonies reported to have been founded before the Latin War. In neither landscape is there any evidence of flourishing scattered landscapes of pre-Roman origin. In Sutrium, two topographic studies have recognized hardly any traces of settlements dating to the early colonial or pre-colonial periods.⁵²⁷ Only from the time of the mid-Republican period did the territory gradually become populated by isolated farmsteads; first located in close proximity to the urban centre, and only from the early Imperial period did they cover the entire investigated areas. A partial explanation for the remarkably empty archaeological landscape is provided by a geo-archaeological study which established that, at least the area around Lake Monterosi (7 km to the south-east of Sutri) was covered by thick forest until at least the mid-third century.⁵²⁸ The territory of Nepes was settled fairly intensively in the pre-Roman period, but witnessed a dramatic decline in site numbers in the early colonial period. In the third century, sites clustered together in the south-eastern part of the investigated territory (roughly 25 % of the total territory).

⁵²⁴ In general, the material found inside these settlements is of very poor quality (E.g. Quilici-Gigli 1991). Moreover, it seems unwise to attempt to interpret the generic material culture of this period and region close to Rome along ethnic lines.

⁵²⁵ E.g. Livy: Signia & Circeii (1.56); Velitrae (2.30). Dionysius: Fidenae (2.53); Signia & Circeii (4.63); Velitrae (6.42).

⁵²⁶ Bradley 2006 gives more weight to the reports which record the co-existence and mixing of colonial and indigenous populations.

⁵²⁷ Duncan 1958 and Morselli 1980.

⁵²⁸ Hutchinson 1970. See also Livy 9.36 who mentions that in the late third century the Ciminian Forest was an impassable, terrifying wood.

From the second century, the whole area was gradually being settled which suggests that the recorded voids are not the result of either accessibility or visibility problems.⁵²⁹

No clear evidence of the appearance of new nucleated and fortified settlements exists in these territories. In the case of Nepesin, this is hardly surprising, since hardly any information has been published on the functional and dimensional differences between recognized sites. As a result of this gap, it remains obscure whether nucleated settlements were present among the recognized sites of the fourth century. In Sutrium, a couple of large sites have been detected by Duncan, most of which are dated to the late Republican or Imperial periods.⁵³⁰ At one site, evidence of an early wall structure of defensive character was identified. Duncan says that it most likely belonged to a Pre-Colonial settlement.⁵³¹

Only a few colonial territories founded after the Latin War display a configuration of settlement which is comparable to that attested to in the early colonies founded in the vicinity of Rome. One possible example is the Rosea Plain in Sabinum, which is likely to have been affected by the land division programme of Dentatus. The early colonial period is characterized as a time in which the pre-Roman scattered settlement system flourished and intensified.⁵³² In this area evidence has also been found for the existence of nucleated settlements in the early colonial period. The first is located at *Ponte Crispolti* which is situated in the basin floor between Lago Lungo and Lago di Ripa Sottile, alongside the road that connects Rieti with Terni (ancient Interamna Nahars).⁵³³ During renovation works of an Early Modern farmhouse, large quantities of Roman materials surfaced. These remains included building materials, marble, mosaic *tesserae* and pottery. At first this was believed to have belonged to a villa structure, but a subsequent survey of the terrains surrounding the modern farmhouse established that the site was very extensive (2.5 hectares) and it would be better to interpret it as a village.⁵³⁴ The researchers suggest that this might be the settlement called *Septem Aquae*, which is known from the epigraphic and literary record.⁵³⁵

Another nucleated site has been recognized in the modern hamlet of Madonna del Passo which is situated on the foothills of the mountain ridge. During earthmoving operations, numerous antique wall structures were uncovered. A small-scale rescue excavation carried out by the *Soprintendenza*

⁵²⁹ This increase in rural site is not necessarily the result of demographic growth, but could also be explained as a change in settlement organization in which settlement focuses more strongly on fertile areas and are therefore better recognizable.

⁵³⁰ E.g. Duncan 1958, 101 (Site 69287).

⁵³¹ Duncan 1958, 115 (site 722786).

⁵³² Marked dimensional differences are often recorded within these isolated rural sites. Almost as a rule these are translated rather uncritically into a bi-polar functional differentiation of farmstead (small) and villa (large). About 51 % of all Republican sites was characterized as small (< 0.2 hectares), 28 % was medium-sized (0.2-0.5 ha), and a total of 11 sites (21%) was larger than 0.5 hectares. The majority of the larger sites are interpreted as villas but, especially in areas where several sites cluster, it might be better to interpret them as nucleated settlements. Also Coccia and Mattingly 1992b, 245-246 for remarks on the clustering of sites. See also the large sites M21/35 and F21/ 108 discovered in the Farfa area (Leggio and Moreland 1986, 337).

⁵³³ Coccia and Mattingly 1992b, 273 (site 243) with references. The modern road probably follows the same trajectory as the Roman road which connected both ancient cities. This likelihood is indicated by the discovery of ashlar blocks, probably part of a Roman bridge, where this road crosses the River S. Susanna.

⁵³⁴ Coccia and Mattingly 1995, 157 site 241. The site flourished in the Republican and early Imperial periods.

⁵³⁵ Coccia and Mattingly 1992b, 273.

exposed a series of strip buildings opening to a lane or road, mostly dating to the late Republican period. A detailed gridded survey of the adjacent terrains mapped a dense scatter of pottery covering at least 5 hectares with a chronological range from Archaic times to the Late Roman period.⁵³⁶

Continuity of scattered settlements is also attested to for the territory of Thurii, which was colonized in the early second century.⁵³⁷ According to Quilici, the Late-Hellenistic period was characterized by the clustering of sites alongside ancient routes into villages. This phenomenon was especially noted in the area to north of the Crati-Coscile River line.⁵³⁸ In his view, the recorded configuration probably represented ethnic and socio-economic differences. The scattered landscape recognized to the south of the water line was considered colonial, but the village landscape was interpreted as the territory in which the remaining indigenous population resided. The weakness of interpretations which equate villages with indigenous inhabitants and isolated farmsteads with colonists has been already been pointed out. Especially problematic for this interpretation is the fact that surveys in neighbouring Greek territories have convincingly demonstrated that a scattered pattern of settlement is typical of Greek territories in the Hellenistic period.⁵³⁹

Quilici's theory has recently been undermined even more by a study by Van Leusen and Attema. On the basis of a critical analysis of the data and a re-survey of a small part of the territory investigated, they argue that the clustering of settlement in the northern part of the territory is more likely to have been the influence of the geomorphology of the terrain, than a result of cultural and socio-economic processes.⁵⁴⁰ Their analysis shows that there were settlement clusters along the major terrace edges as well as along edges of small valleys.⁵⁴¹ Detailed investigation by means of intensive field survey of one of these geomorphologic zones mapped a very high number of settlements, which transpired to be scattered and did not cluster into one or more villages in the reconstruction.⁵⁴² Whether this is also true for the very dense clusters recognized by Quilici in the territories of the modern villages of Doria and Eianina still remains to be investigated.

⁵³⁶ Coccia and Mattingly 1995, 157 site 243.

⁵³⁷ Quilici 1967; Van Leusen and Attema 2001-2002, 408-411.

⁵³⁸ See for an earlier very extensive topographic research Kahrstedt 1960. He recognised traces of a large Roman settlement in the territory of the modern village of Doria (Kahrstedt 1960, 94). The settlement, Toynbee 1965b, 662, believes could have been the colonial settlement of Copia. There is epigraphic evidence dating to the second century for the existence of an important settlements further inland. On the Lapis Pollae (CIL X, 6950), a town called *Muranum* which was located along the main road connecting Capua with Regio Calabria, is mentioned. The ancient town has been convincingly located in the modern village of Morano Calabro (Renda 2000, 22-23).

⁵³⁹ Carter 2006, especially Ch. 5; for Croton a synthesis in Carter 1990; for Taras see Burgers and Crielaard 2007.

⁵⁴⁰ Part of the linear clustering of site could also be the result of a bias in the work of Quilici, who might have concentrated his research in areas alongside roads which were more easy accessible (on this Van Leusen and Attema 2001-2002, 401-404).

⁵⁴¹ See fig. 4 in Van Leusen and Attema 2001-2002, 404.

⁵⁴² Van Leusen and Attema 2001-2002, 414.

4. Alignment alongside watercourses, roads or settlement in specific geomorphologic zones

Quite a few colonial landscapes are characterized by an irregularly scattered pattern of sites, the consequence of a preference for building farms in specific geomorphologic areas or alongside important ancient roads. It makes good sense that the natural environment should determine settlement location and therefore these finds are hardly surprising. Nevertheless, in the traditional paradigm it was believed (often implicitly, but sometimes very obviously) that nature was subjugated by the colonial power and that the conquered terrain was radically reorganized into a geometrically ordered, cultivated landscape which was settled in regular units. The model discussed here describes the opposite situation, namely a system of rural occupation which adapts to natural conditions.

The preference for settlement in transitional zones in the relief is especially recurrent. A clear example of this pattern is found in the territory of Venusia. The vast majority of sites dating to the early colonial period follow contour lines and are positioned on the edges of flatter areas, just before the terrain begins either to descend or ascend abruptly (Fig. 240).⁵⁴³ That this trend is unlikely to be the result of geomorphologic processes is demonstrated by the fact that only in the second-century does settlement expand into the flatter areas, which subsequently produced a dense pattern of scattered settlement covering most of the territory investigated. In the territory of the citizen colony of Luni, almost all Republican sites are aligned in the foothills on the 75m contour line, after which the terrain begins to rise abruptly (Fig. 25).⁵⁴⁴ Almost no traces of settlement were recognized in the plain where the colonial town was founded or in the upper hill zone.⁵⁴⁵ The early colonial settlements mapped in the territory of Potentia are also predominantly located on the edges of the alluvial plain of the River Potenza on the 20 m contour line, just before the terrain begins to rise.⁵⁴⁶ Since the survey concentrated on this particular geomorphologic zone, with little research being done either in the higher areas or in the alluvial plain, the significance of this pattern is dubious. An important consideration is that geo-archaeological research carried out in the alluvial plain has demonstrated that the River Potenza has changed its course since the Roman period. This shift might have obliterated traces of settlements in that area.⁵⁴⁷

⁵⁴³ Marchi and Sabbatini 1996.

⁵⁴⁴ Delano Smith, et al. 1986, 102-105.

⁵⁴⁵ Detailed geomorphologic research suggests that this pattern is unlikely the result of sedimentation processes which buried settlements (Delano Smith, et al. 1986, 88-90;103-107). See for a recent geoarchaeological study on the sea-level at Luni in Roman times: Bini, et al. 2009.

⁵⁴⁶ Percossi, et al. 2006, 89, fig. 31 and site catalogue.

⁵⁴⁷ Corsi, et al. 2009.

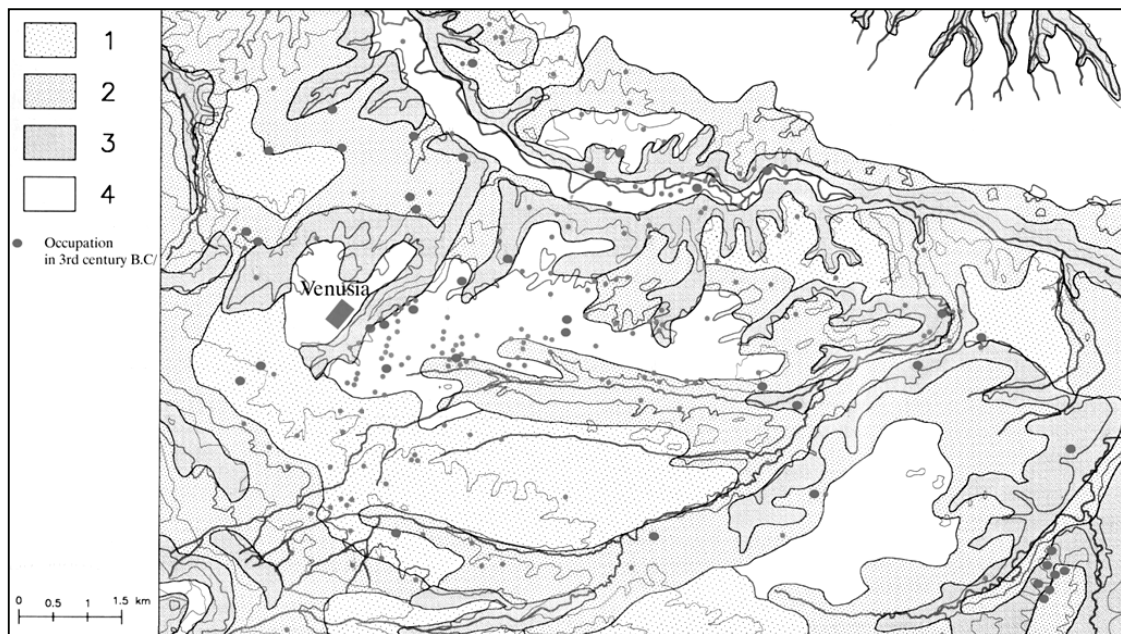


Fig. 24: The territory of Venusia. Green dots: sites of the 3rd century. Grey dots: Republican sites. 1. inclination of 5-10%, 2 inclination of 10-20%, inclination < 20%, inclination of 0% (Adapted from Marchi and Sabbatini 1996).

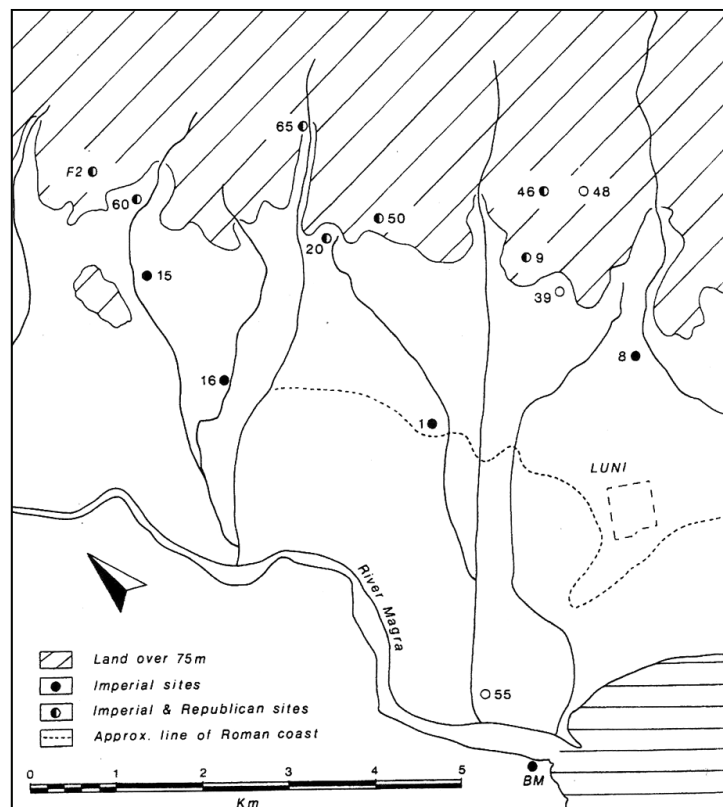


Fig. 25: The territory of Luni (From Delano Smith, et al. 1986, 102).

Another recurrent correlation is that between settlement and watercourses. Many early colonial sites recognized in the territory of Brundisium are located alongside small branches of the Cillarese waterway.⁵⁴⁸ Interestingly, these sites are often quite substantial and categorized as what are known as ‘casa-2’ sites, which are believed to represent two households, but might also indicate small hamlets. A similar pattern is visible in the territory of Minturnae. Most Roman sites which have been identified in the north-eastern part of the territory are aligned alongside the Garigliano River.⁵⁴⁹ The problem with this material is that, since the publication provides no information about what part of the territory was actually surveyed, it is impossible to say with any certainty that the pattern noted is the result of a bias of the researchers or a genuine trend. Finally, in the territories of Venusia and Heba site clusters are recognizable along the Fiumara Matinella and the eastern bank of the Fosso Castione respectively.

Natural phenomena are not the only features in a landscape which attract settlement. In many colonial landscapes settlement tends to concentrate heavily alongside major roads. Probably the best example of this is the via Appia. Several surveys have demonstrated that site densities decrease notably the farther away one moves from the road. In the Ager Pomptinus, for example, a small-scale intensive survey (1.8 sq. kms) by the Groningen University team investigated the terrains located to the south-west of the via Appia, between the 45th and 46th milestone. They mapped a dense network of isolated farmsteads dating to the period 350-200 (6 certain and 12 possible sites).⁵⁵⁰ Importantly, the majority of these sites are located very close to the via Appia, and site numbers decreased rapidly the farther away the investigation moved from the road, up to a point where almost no sites were recognized.⁵⁵¹ Farther down the via Appia, in the territories of Minturnae and Sinuessa, most Republican sites (the majority datable to the second century and later) are crowded together along the road.⁵⁵² The same story is repeated in the last part of the road which crosses the territory of Brundisium before it reaches the Adriatic Sea. Here a large number of sites is clearly aligned alongside this transport route. No particular high site density was mapped along the via Aurelia in the territory of Cosa. However, alongside its side roads which lead to Heba, site numbers are notably higher than in the rest of the territory.⁵⁵³

⁵⁴⁸ Aproso 2008, 75.

⁵⁴⁹ Coarelli 1989, see esp. tav. LVII.

⁵⁵⁰ De Haas 2008. Possibly these sites had already been founded before the Roman colonization of the area. Some very scarce evidence for the existence of nucleated settlements in the area comes from the road station *ad Medias* (placed at the 53rd milestone). In a small excavation trench alongside a large funerary monument, several pottery fragments datable to the third century were retrieved, which tentatively suggests that the settlement originated in this period.

⁵⁵¹ Possibly the high site densities recorded during the small-scale intensive surveys in the territories of Norba and Setia are also connected to the presence of the ‘via pedemontana’ alongside which most of the research was done. This issue is discussed in Chapter 2. Regrettably, the chronology of the diagnostic pottery does not allow a precise dating of the beginning of these sites.

⁵⁵² Coarelli 1989, esp. tav. LVI page 252. For Sinuessa: Arthur 1991, fig. 22 and the site catalogue.

⁵⁵³ In the territory of Castrum Novum, Roman sites also cluster heavily alongside the via Aurelia (Gianfrotta 1972, sitemap). Yet again, the quality of this inventory is poor and it is uncertain if this pattern is the consequence of a selective investigation alongside roads. See Di Giuseppe, et al. 2002, 125 for the view that the settlements recognized in the re-survey of the territory of Cures are best understood as ribbon settlement grouped or clustered along ancient roads.

5. Landscapes of scattered settlement

This category includes all territories which were settled more or less evenly in the early colonial period.⁵⁵⁴ In only a small number of cases can this scattered pattern also be said to be regular. In most cases, scattered means that sites are mapped in most parts of the investigated area and no clear clustering is visible. One of the landscapes which answers best to the concept of an archetypal colonial territory is that of Valesio, which might have been part of the territory of Brundisium (Fig. 26).⁵⁵⁵ In the circa 18 sq. kms of terrain investigated, a dense (3.5 sites per sq. km.) and rather regular pattern of sites dating to the early colonial period was recognized.⁵⁵⁶ The distances between sites is not absolutely regular and tends to fluctuate between 300 and 800 metres. It is interesting that half of the recognized isolated sites were founded in the Pre-Colonial period and seem to have continued unaffected by political and military events until at least the mid-second century.⁵⁵⁷ Therefore there is no certainty about whether the landscape located at a fair distance from the colonial town centre can be considered colonial or would be better understood to be a local development.

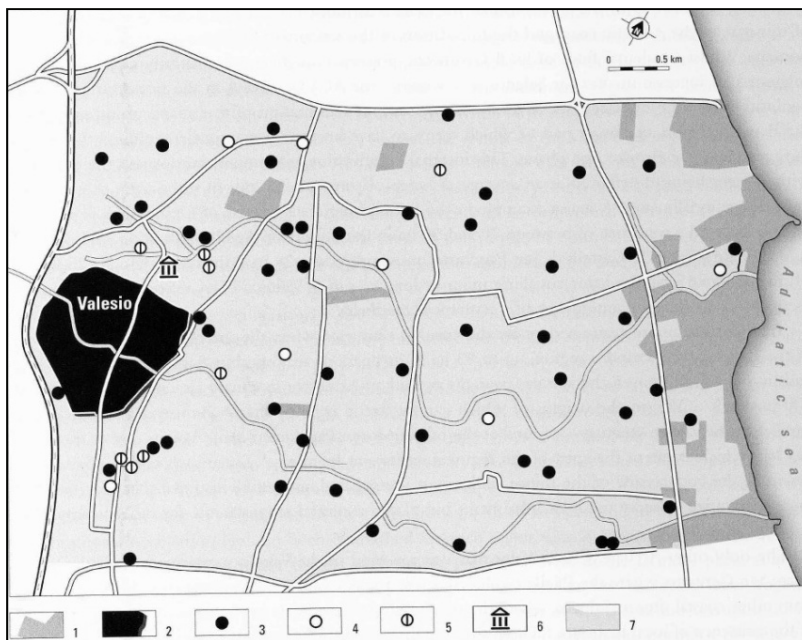


Fig. 26: The territory of Valesio with sites dating between the late 4th and the middle of the 2nd century. 1. inaccessible areas; 2. walled site of Valesio; 3. farm sites; 4. probable farm sites; 5. scatters consisting of tile and amphora only; 6. sanctuary site; 7. surveyed area, (from Attema, Burgers and Van Leusen 2010, 71).

⁵⁵⁴ At this point, I exclude those territories for which a scattered settlement system originated in the Pre-Colonial period; these are discussed in Section 3.

⁵⁵⁵ Aproso 2008.

⁵⁵⁶ Boersma, et al. 1991, 128-129. A total of 62 sites has been recognized dating generically to the late fourth to first half of the second century (and 5 probable sites). Almost half of these sites has produced only material dating to the second half of the third century and later. These data suggest a rather dramatic increase in sites in the Early Colonial period. See also Attema, et al. 2010, 70-73.

⁵⁵⁷ Scattered settlement patterns have been mapped in other territories in Salento (see for a synthesis Burgers 1998 and Yntema 2006).

Regularly settled landscapes have also been recognized in the hinterland of the maritime citizen colonies of Alsium, Croton and Voltturnum. In Alsium, a relatively densely populated landscape of fairly evenly dispersed sites is recorded. Echoing the situation at Valesio, the scattered system of rural habitation originated in the pre-Roman period (density 0.58), but intensified significantly in the early colonial period (1.3 per sq. km.). Only a handful of sites has been recognized in the coastal area around the colonial stronghold. Most settlements are located in the foothills, near the Etruscan city of Caere. These are not likely to have been the dwellings of the small number of colonial migrants whose duty was to guard the coast. The immediate surroundings of the colony of Voltturnum witnessed a significant intensification of rural settlements after the foundation of the colony. These settlements are scattered more or less regularly over the territory investigated (density 1.4).⁵⁵⁸ A fairly similar process has been recognized in the area known as Capo Colonna, the putative location of the Roman colony of Croton.⁵⁵⁹ This area was relatively densely settled in the colonial period (3.5 per sq. km.) by newly founded, isolated, regularly scattered sites.

In North Italy, scattered landscapes have been recorded in the territories of Cremona and Mutina. In Cremona, site densities are very low (0.3 for the entire Roman period) but this result is most likely the result of the poor quality of the inventory.⁵⁶⁰ Most sites recognized produced only pottery datable to the late Republican/ early Imperial period and it has been hypothesized that this part of the territory was reclaimed only in the late Republican period. A similar low density of sites has been mapped in the north-west area of the territory of Mutina (density 0.3).⁵⁶¹ In the area traces of a centuriation grid of 20x20 *actus* have been recognized. If, as Livy says, colonial allotments measured only 5 *iugera*, initially each *centuria* should have contained forty plots. However, on average at best only one site dating to the Republican period has been detected within the boundaries of one *centuria*; many remain empty. Higher densities have been mapped in an inventory carried out around the colonial town centre. With the exception of the territory immediately surrounding the colonial town, where almost no sites have been recognized, site densities are over 1 per sq. km. Even these higher densities are much lower than the expectation raised by the information about the size of colonial holdings.

A similar situation has been found in Saturnia. Around the colonial town centre, a high, rather evenly distributed number of Republican sites were recognized (Fig. 27).⁵⁶² However, when these sites are plotted in the reconstructed land division grid of allotments of 10 *iugera*, it immediately becomes obvious that the number of sites is still much lower than what might have been expected with only c. 25 per cent of the allotments being occupied by sites. Moreover, the percentage drops radically in the neighbouring *centuriae*, in which only a few sites were recognized; some even remain empty. At least

⁵⁵⁸ Crimaco 1991, 21-31 and tav. XXVI.

⁵⁵⁹ Carter 1986; Carter 1990.

⁵⁶⁰ Vullo 1995.

⁵⁶¹ Corti 2004.

⁵⁶² Attolini, et al. 1991; Carandini, et al. 2002, 140; 170.

a partial explanation might again be found in the clustering of dwellings. In the territory, several small hamlets have been recognized, the majority measuring less than 1 hectare.⁵⁶³ One larger settlement of 2 hectares has been recognized, located at just little more than one kilometre from the colonial town centre on the other side of the Albegna River.⁵⁶⁴

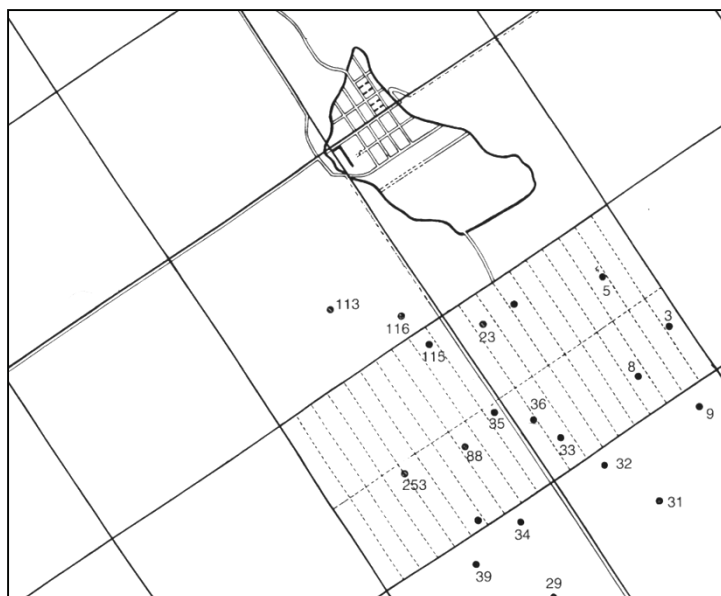


Fig. 27: The territory of Saturnia with land division grid (20x20 *actus*). Black dots: sites of the Republican period.

6. Conclusions

The traditional understanding of Roman colonial settlement arrangement as densely, regularly settled landscapes is not corroborated by the majority of archaeological field surveys. In most cases, the spatial arrangement of sites is very different from the evenly dispersed settlement plan which might have been anticipated. Most colonial landscapes were settled rather irregularly, often in clusters or aligned alongside watercourses, roads or breakpoints in the relief. After closer inspection, the few landscapes which approach the anticipated regular spatial arrangement turn out to have been either created in the pre-colonial period, or are strongly lacking in terms of site densities.

Without doing new fieldwork, it is very difficult to establish whether this discrepancy results from biases in the archaeological record or reflects genuine settlement trends. Given the fact that most research projects expected to find scattered landscapes it is unlikely that conceptual biases played an important role in the creation of these clustered or aligned patterns. Instead, there is a good chance that existing preconceptions have marginalized the importance of agglomerations of sites in the archaeological record.

⁵⁶³ Carandini, et al. 2002, site catalogue: Man 272.2; Man 88.6; Man 88.3; M 54.6; M 156; M 158; M 98; M 99; M 77.2; M 54.6.

⁵⁶⁴ Carandini, et al. 2002, site catalogue: Sam 51.1 2.

In some of the topographical studies, the recorded alignments of sites alongside roads or in river valleys could be the outcome of a specific bias of the research projects in question, which might have concentrated on those areas which were easily accessible or where settlement was expected. However, string-shaped settlement patterns have also been mapped in intensive surveys and in site-oriented field surveys which thoroughly sampled large territories composed of different geomorphologic zones and were not biased towards roads.

Obviously, these arguments do not in any way prove that the patterns noted are genuine (at best, they counter some of the methodological problems which are known to distort the archaeological survey data-set). My main point is simply that archaeological evidence for the existence of densely, regularly settled early colonial landscapes is virtually absent. If scholars wish to retain the traditional model of colonial habitation scattered regularly over the landscape, it should be demonstrated otherwise. As seen in Chapter 3, the two most important remaining data-sets which are believed to support the conventional model: literary information on land division into equally sized holdings and traces of centuriation, in fact seem to point in a different direction. These findings undermine the conventional expectations of colonial settlement arrangement even further.

If the *idée fixe* that in their early years all colonies were organized according to the centuriation model, consisting of a rigidly ordered hinterland, can be discarded, the possibility of recognizing other forms of settlement organization is opened up. Although admittedly patchy, the information available suggests that a multiple-core clustered or nucleated settlement system prevailed in the majority of the pre-Punic War colonial territories. Tentatively, these nucleated settlements can be connected with the colonial *uici* known from the epigraphic record. Such a settlement system had an obvious advantages in an early colonial context. It should be remembered that the environment colonists were entering was potentially hostile, their fields only recently conquered and surrounded by non-Roman people with possibly inimical intentions. Therefore, it would have made sense to live in larger, more easily defensible settlements and work the surrounding fields from there, rather than to live in isolated farmsteads spread out over the territory, or to be concentrated in a single urban centre which would have left the whole rural area unprotected.

From an archaeological point of view, it is only in the course of the late third and early second century that some colonial landscapes begin to approach the anticipated, regularly scattered settlement model. This is also the period in which the existence of land division grids becomes more convincing. But even in this period, settlement is not truly regular, but has clearly been determined by the natural conditions or major transport routes.

Chapter 5.

TERRITORIAL JURISDICTION AND THE FATE OF THE INDIGENOUS POPULATION

1. Introduction

Roman and Latin colonies are often considered to have been communities of migrants from Rome and the Latin states who settled in an area from which its previous inhabitants had been evicted. This interpretation tallies neatly with the traditional understanding of colonies as important strategic outposts whose main task was to secure Roman hegemony in conquered areas far from Rome (on this see Chapter 1). From a strategic point of view it seems to make sense that only trustworthy people (that is, people of Roman origin) were allowed to enrol in colonies and that indigenous people were usually excluded.⁵⁶⁵ This standpoint is supported by some literary texts which recount aggressive campaigns for the purpose of driving out or exterminating local communities.⁵⁶⁶ For example, when Horace writes about his birthplace Venusia, he mentions how it is said in the old stories that colonists were sent there after the Sabellians had been expelled.⁵⁶⁷

Although there may be some truth in these stories about ethnic cleansing,⁵⁶⁸ there is also plenty of information both in the sources and in the archaeological record which indicates a far more lenient attitude. For example, archaeological research both in the urban centre and in the countryside of the colony of Paestum has revealed a high degree of continuity between the Greek-Lucanian phase of the *polis* and the Roman colonial period.⁵⁶⁹ The survival of Oscan-Lucanian elite families has been demonstrated by onomastic studies⁵⁷⁰ and the unequivocal continuity of Lucanian elite burial practices.⁵⁷¹ This image of indigenous presence in Roman colonies is not restricted to Paestum, but has

⁵⁶⁵ Brunt 1971, 538-545. Similar arguments can be found in Càssola 1988.

⁵⁶⁶ See Roselaar 2010, 69-84 for a good discussion of these passages.

⁵⁶⁷ Hor. *Sat.* 2.1.34-9.

⁵⁶⁸ There is some archaeological evidence which is thought to corroborate the practice of ethnic cleansing. E.g. Fentress 2000, 12-13 on Cosa. In the territory of Venusia only 5 % of the pre-colonial settlements survived after the colonization of the area in 291 (Marchi and Sabbatini 1996, 19 and 144. Also Torelli 1991, 22).

⁵⁶⁹ See Torelli 1999, 45; Crawford 2006.

⁵⁷⁰ Torelli 1999, 76 and 79-80 with further reference. Gualtieri 2003, 19-24. Latin *nomina* are almost as current as the Oscan-Lucanian ones.

⁵⁷¹ Hornæs 2004. She proposes a new chronology for the painted tombs in the Spinazzo cemetery on the basis of a new, low date of the PIAISTANO coins which have been found inside several of these tombs. The re-dating of the tombs indicates that some at least were used in the Roman period (until the late third century or even later). 'The most likely interpretation of the "Roman" group of tombs is that those buried there belonged to the old Lucanian aristocracy who had now taken up Roman culture as magistrates of the colony.' (page 311).

been recognized in various colonies, geographically and chronologically very distant from each other.⁵⁷²

The evidence for indigenous people living inside the colonial territory seems to be contradictory in view of the supposed strategic functions of colonies, but it is possible to retain the conventional model by assuming that a clear geographical divide was made between the living space of the migrant colonists and the areas in which the indigenous population lived. In fact, until recently the prevailing view was that the indigenous people were relegated to the more marginal areas of the colony where they could continue their traditional way of (village) life. In contrast, the colonists are considered to have lived close together in the fertile areas surrounding the *oppidum*, in what was known as the *ager divisus et adsignatus*. In a socio-juridical sense, the native residents are commonly interpreted as *incolae* or *adtributi*; both are administrative categories which denote people who were not proper *cives* of the colonial community, but were legally and administratively dependent on it.⁵⁷³

However, as the previous chapters have demonstrated, the existence of these assumed, regularly divided colonial landscapes which clearly separated the living space of colonial migrants from those of the natives is dubious for the period before the Punic Wars. Although this conclusion does not of itself undermine the possible existence of separate living areas for migrant and indigenous communities, it does make the existence of such a geo-political arrangement less self-evident. From a social and strategic point of view it makes sense that colonists who had entered a new environment would have stuck together, but this need not necessarily have resulted in completely united territories. Especially if it is assumed that colonists respected, if only for practical reasons, some of the property claims of the indigenous people and avoided settlement in densely populated areas, the possibility of the emergence of a more complex, patchy geo-political arrangements opens up.

At first sight, the archaeological record supports this more diffuse geo-political configuration. A brief look at some of the survey reports shows that in various colonial territories newly founded sites are intermingled with sites which show clear evidence of pre-colonial occupation and even some larger pre-Roman settlements can be seen located in the vicinity of the colonial *oppida*.⁵⁷⁴ In these

⁵⁷² For the literary evidence cf. below. Archaeological indications for indigenous presence in Roman colonies are abundant. See Chapters 4 for the remarkable continuity of rural settlements after the colonization of an area. The survival of indigenous elite families is demonstrated for several colonies. For Saticula, Aesernia and Beneventum see Salmon 1967, 306 n. 3 with references. In Venusia, several inscriptions of the second century mentioning magistrates with Oscan names have also been found (ILLRP, 690-692). On this see Salmon 1967, 316 n. 3; Torelli 1995, 136. Strabo calls the place an Oscan town (Strabo 5.4.11 and 6.1.3). Again in Venusia, a clear mixture of Roman/ Latin and indigenous elements has also been recognized in a votive depot excavated near the amphitheatre (Gualtieri 2003, 25 with further references). For the continuity of a pre-Roman cemetery in Beneventum during the colonial phase see Torelli 2002, 114 with further ref. See Burgers 1998 and Yntema 2006 for continuity of Messapian culture (e.g. burial practices and settlement customs) in the territory of Brundisium. Susini 1965, for the strong continuity of Celtic material culture and language in the *Ager Gallicus*, including Ariminum, where various colonies were founded. Strabo (5.1.11) states that 'Ariminum is a settlement of the Ombri, just as Ravenna is, although each of them has received Roman colonists' and in (5.1.10) 'The Romans, however, have been intermingled with the stock of the Ombri.' For the continued presence of Greek culture and persons in the colony of Puteoli Brunt 1971, 540; Purcell in Frederiksen 1984, 319-337. Interestingly, Polyb. 3.91 in the mid-second century refers to the town by its Greek name Dicaearhia.

⁵⁷³ Cf. below.

⁵⁷⁴ Clear examples come from the colonies in the Pontine plain, Suessa Aurunca (Ponte Ronaco site), Cosa (Orbetello), Venusia (Mass. Casalini), Cures Sabini, Thurii. For referenced see Chapter 4 and site Appendix 1.

patterns, it is tempting to see evidence which supports the view that natives and colonists lived intermingled. Be that as it may, settlement continuity is a very fragile indicator for establishing the ethnicity of the people inhabiting these places. There is a good possibility that, for obvious practical reasons, colonial migrants chose to repopulate abandoned settlements or used the available building materials to build new settlements on approximately the same location. Likewise, the sites which appear as new foundations might not have been colonial settlements at all; they could also have been new farmsteads of indigenous people who relocated to other areas, either prodded by force to make place for colonists or prompted by their own desire to settle elsewhere.

Therefore, in this chapter I shall rely heavily on the literary and epigraphic evidence in an attempt to unravel the geo-political arrangement of colonial territories. This analysis also provides a framework with which the complex archaeological record can be interpreted. The first step is to establish whether there is any reason to assume that a substantial number of the indigenous population who were not enrolled in the colony as full members continued to live in the conquered territory. I shall argue that there is strong evidence that this was the case. This assumption naturally raises questions about the socio-political status of these people and whether they were geographically separated from the colonists. These questions will be dealt with in the second part of the chapter in which the view that a colony was a territorial state will be discussed.

2. Indigenous inhabitants as *coloni adscripti*

The numerous references to the participation of indigenous people in the political life of colonies affirms that at some point in time indigenous people were allowed to join Roman and Latin colonies as full citizens. The conventional view is that this happened on a large scale only in the period after the Hannibalic War.⁵⁷⁵ The theory postulates that the heavy losses suffered during this war and the temporary demographic crisis which followed it resulted in recruitment difficulties which necessitated a change in recruitment policies.⁵⁷⁶ After the Second Punic War, Rome had also firmly established its power in Italy which diminished the strategic function of colonies. On this view, it was only in this specific historical context that Rome allowed large groups of indigenous people and *socii* to enrol in a colony; earlier the enrolment of 'natives' had been limited to a few individual cases of members of the philo-Roman elite.

The fact that indigenous magistrates are also recorded on inscriptions from colonies which were founded before the Hannibalic War does not necessarily challenge this theory. The vast majority of these inscriptions dates to the second century or later. Since many colonies received supplements of colonists in this period, it is possible that the indigenous people recorded joined the colony only after

⁵⁷⁵ Salmon 1967, 318; Càssola 1988, esp. page 6.

⁵⁷⁶ The loss of many lives probably also meant that there was enough land in Roman territory to cultivate.

the Hannibalic War.⁵⁷⁷ For example, Salmon says that the magistrates with an indigenous background attested to in Venusia were very probably linked to the arrival of new colonists there in 200.⁵⁷⁸ Such a procedure is documented for Cosa, which received a supplement of 1,000 colonists in 197.⁵⁷⁹ Other literary evidence also suggests that, in the decades following the Second Punic War, the inclusion of indigenous people in colonies became more widely accepted. In 171, indigenous people were allowed to join the Latin colony of Carteia (Spain) and 4,000 Samnites and Paelignians migrated to Fregellae in 177.⁵⁸⁰

This elegant theory is not accepted by Bradley.⁵⁸¹ He argues that there is unambiguous literary and archaeological evidence for a much earlier commencement of the practice of including indigenous people in Roman and Latin colonies. The clearest example of this is Antium; Livy reports that during the second colonization attempt in 338 ‘*ut Antiatibus permetteretur, si et ipsi adscribi coloni vellent*’.⁵⁸² According to this passage, the old inhabitants could not only join the colony if they wished, but the term *adscribi* also suggests that they were included on a formal list; possibly the lists from which Livy obtained his information, directly or indirectly, about the number of colonists. A similar story is also recorded by Livy describing a previous colonization attempt at Antium, more than a century earlier. In this case, he also gives the reason for including natives: ‘Those who wished to receive a grant were ordered to submit their names. As usual, abundance produced disgust, and so few gave their names that the number was made up by the addition of Volscians as colonists.’⁵⁸³

The authenticity of the texts mentioning the inclusion of ‘natives’ in early colonies is debated, in particular by those scholars who argue that colonies had an overriding military function. Sceptics argue that the references to the inclusion of natives in the early colonies are anachronistic inventions of the sources which were influenced by the liberalism of the Roman citizenship of their own day and especially by the enfranchisement of Italians after the Social War and the colonial policies of Caesar and Augustus. This position is most clearly voiced by Càssola, but similar arguments can also be found in Brunt.⁵⁸⁴ Càssola claims that the inclusion of indigenous people conflicts markedly with other stories about hostilities between colonists and natives and, in general, with the military function and

⁵⁷⁷ On these supplements see Chapter 2.3.

⁵⁷⁸ Livy 31.49; Salmon 1967, 316 n. 3 and 318 (*contra* Galsterer 1976, 55).

⁵⁷⁹ Livy 33.24. For first request which was unsuccessful see (Livy 32.2): ‘On the same day a petition was presented by the inhabitants of Cosa praying that their numbers might be enlarged, and an order was made for a thousand new colonists to be enrolled, no one to be included in the number who had been an enemy alien since the consulship of P. Cornelius and Tiberius Sempronius.’ The specific restriction on hostile elements suggests that in principle foreigners could join. Although it is possible that people living in the area (i.e. the descendants of the conquered native community) were enrolled on this occasion, this is not explicitly stated.

⁵⁸⁰ For Carteia see Livy 43.3 and discussion below. For the migration to Fregellae Livy 41.8. On this also Salmon 1967, 318.

⁵⁸¹ Bradley 2006.

⁵⁸² Livy 8.14.8.

⁵⁸³ Livy 3.1. According to Dion. Hal. *Ant. Rom.* 9.59, however, Latins and Hernicans rather than Volscians were allowed to enroll (on this see also below). See Dion. Hal. *Ant. Rom.* 1. 9 on the general Roman practice of offering citizenship to the people they conquered. Other examples are: Medulia (Dion. Hal. 2.36, 2). Velitrae (Dion. Hal. 7.12) Livy says that the majority of colonists sent to Ardea in 442 were Rutulians (e.g. the people of Ardea), and not a single plot should be assigned to a Roman until all the Rutulians had received their share (Livy 4.11). On the granting of citizenship to the people of Veii, Capenae, and Fidenae which had gone over to the Romans see Livy 6.4.

⁵⁸⁴ E.g. Càssola 1988; Brunt 1971, 539-540.

origin of these early colonial settlements.⁵⁸⁵ Disagreement about the foundation dates between the sources or even within one source aptly demonstrates the unreliability of the annalistic tradition and illustrates the inability of antiquarians to understand the early colonial situation.⁵⁸⁶ Describing the difficulties in the recruitment of Roman colonists and the concomitant enrolment of indigenous people, Càssola suggests that the sources wrongly retroject the situation of the post-Hannibalic period to the early days of colonization.⁵⁸⁷ The stories about Antium are considered particularly problematic. Livy's source was probably the notoriously inventive chronicler Valerius Antias and it is possible that he re-projected experiences from his own time (especially those related to the colonization of Sulla) to the early history of Antium.⁵⁸⁸

Countering this assertion, Bradley argues that the apparent openness of citizenship in the early history of Rome is not restricted to stories about colonization, but ties in with other descriptions of archaic Roman society; the story of the rape of the Sabine women, which ultimately also led to the union of the Sabine and Roman people, is only one of many examples. Such stories strongly suggest that 'a situation existed where individual ethnic identities were not central to behaviour'.⁵⁸⁹ In light of this wider socio-ethnic context, the references to inclusion are perfectly plausible and there is little reason to suspect corruption of the texts on this point.⁵⁹⁰ Indeed, there is evidence to suggest that the archaic ethnic mentality that promoted the absorption of foreign people continued after the Latin War.⁵⁹¹ Obvious examples are of course the granting of the *civitas sine suffragio* to the Sabines in early third century, to be followed soon afterwards by incorporation as full citizens. Another important piece of evidence is the story of Dasius (clearly an indigenous name) of Brundisium who was put in charge of a stronghold to oppose Hannibal in northern Italy by the Romans.⁵⁹²

Whether the references to the inclusion of natives in colonies are taken to be correct or are anachronistic inventions is in a way less important to the question of what happened to the indigenous population than is often suggested. The same sources which describe the liberal policy make it perfectly clear that the potential enrolment of indigenous people did not result in a *complete*

⁵⁸⁵ The story about the foundation of Signia is interesting in this context. Càssola argues that this is a more accurate reflection of what a colony was like in this early period. Dionysius tells us that the colony was not planned but grew spontaneously, when a military camp built by soldiers as a winter residence resembled nothing less than a city (4.63.1).

⁵⁸⁶ Càssola 1988, 6, discusses the example of the colony of Antium founded in 467 and re-founded in 338 (see references above), and Sora according to Livy was captured in 345 (Livy 7.28.6 and 9.23.2) but only colonized in 303 (Livy 10.1.1).

⁵⁸⁷ Càssola 1988, esp. page 6. With specific reference to the case of Antium, he believes that enrolment was only open to some individuals; friends and allies of Rome.

⁵⁸⁸ Cf. Forsythe 2005, 207; Bispham 2007a, 455 n. 76. Others have argued that there was only a single colonial event in Antium in the early Republican period and that Livy mistakenly suggests that Antium was colonized twice (e.g. Càssola 1988).

⁵⁸⁹ Bradley 2006, 166.

⁵⁹⁰ See also Galsterer 1976, 51ff in favour of the credibility of these early references to inclusions of natives. He also argues that the episodes of the massacres of the indigenous population have been coloured by the colonization practices of Sulla. Also Cornell 1995, 367, who argues that these early references to inclusion are absolutely credible. The attempts by Livy and Dionysius to explain what appeared to them to be the problematic enrolment of native Antiates in a Roman colony as the result of recruitment difficulties is considered proof of the reliability of the event itself. He also gives a demographical argument for the theory that a substantial non-Roman population must have participated in the colonization enterprise: in his view it is unlikely that on its own the Roman population in the Early and Mid-Republic could have withstood such a drain on its citizen manpower. See for a detailed analysis of this arguments Chapter 2.2.5.

⁵⁹¹ Bradley 2006, 179.

⁵⁹² Polyb. 3.69; Livy 21.48.

assimilation of native and migrant communities. For example, writing about the colony of Antium which was founded after the Latin War, Livy says that the Antiates could choose to join the colony; hence offering them the possibility to decide otherwise. The fact that Livy mentions a delegation of Antiates who were without laws in 317 (c. 20 years after the foundation of the colony) might indeed suggest that not all Antiates enrolled in the colony in 338.⁵⁹³

A similar case can be made for the earlier colonial event in Antium (in 467). Although Livy mentions that Volscians could enrol in this colony, he also suggests that not all did. During the war between Rome and Antium, some of the Antiates had taken refuge with the Aequi. These refugees, who were certainly not enrolled in the colony, later returned to Antium where they found the colonists already disaffected and subsequently succeeded in alienating them completely from Rome.⁵⁹⁴

Dionysius gives a slightly different, sometimes more detailed version of the circumstances surrounding the foundation and early years of the colony of Antium.⁵⁹⁵ He states that ‘the Senate, wishing both to court and to relieve the poor, passed a decree to divide among them a certain part of the territory of the Antiates which it had taken by the sword a year before and now held. {...}. Accordingly, the triumvirs who were sent to Antium divided the land among their people, leaving a part of it to the Antiates.’⁵⁹⁶ The passage seems to suggest that not the entire Antiate territory was divided and that some of the Antiate community could remain on their farmlands. He does not refer to any of these Antiates being enrolled in the colony or to their inclusion among the *adscripti*. In fact, Dionysius claims that the reluctance of the Romans to join this colonial enterprise was resolved by allowing Hernicians and Latins to enrol (both confederate partners of Rome); not Volscians as Livy reports.⁵⁹⁷ A little farther in his text Dionysius is more explicit: ‘All the Antiates who possessed homes and allotments of land remained in the country, cultivating not only the lands assigned to them but also those which had been taken from them by the colonists, tilling the latter on the basis of certain fixed shares which they paid to the colonists with the produce. But having been heartily welcomed by the Aequians, those who had no such possessions left the city, were using their country as a base from which to ravage the fields of the Latins.’⁵⁹⁸

These episodes demonstrate unequivocally that, according to Livy and Dionysius, there were various Antiate communities with different loyalties. Some of the Antiates, possibly the landowning class, joined the colony as full members (as Livy seems to suggest), or if Dionysius’ account is correct, continued to live in a certain part of the Antiate territory reserved for them, but in a subordinate position. Others did not join the colony but continued their hostilities towards Rome from

⁵⁹³ See below for a discussion of this passage.

⁵⁹⁴ Livy 3.4.

⁵⁹⁵ I thank Simon Northwood for pointing this passage out to me.

⁵⁹⁶ Dion. Hal. *Ant. Rom.* 9.52.

⁵⁹⁷ Dion. Hal. *Ant. Rom.* 9.59.

⁵⁹⁸ Later, when a war between Rome and the Aequi was fought, Livy again states that 2,400 of these raiding Antiates died in battle. During that same battle, 1,000 soldiers from Antium, probably the colonists who were sent to join Roman forces but arrived too late and were sent back. Livy is clearly confused by these two communities of Antiates which shared the same name (see Livy 3.10, 3.22 and 4.56).

outside and, if Livy is to be believed, even from the territory of Antium itself. As will be shown below, the stories about Antium are not unique and there is ample evidence in the literary sources and to a lesser extent in the epigraphic record which demonstrates that the founding of a Roman colony did not necessarily imply the end of the conquered indigenous community (either as the result of their annihilation or of their complete assimilation).⁵⁹⁹ The question which remains to be answered is what was the socio-juridical status of those indigenous inhabitants who had not been incorporated?

3. Living apart together

One popular theory is that the indigenous population which continued to live in the colonial territory was assigned the inferior status of *incolae*, which meant that they were not included as citizens in the new community but were allowed to live on the colonial lands as foreigners without voting or any other political rights. This interpretation is based largely on an inscription dated to the early second century from the Latin colony of Aesernia which reads: SAMNITES/ INCOLAE/ V(eneri) D(ono) D(ederunt)/ MAG(istri) C POMPONIUS V F/ C PERCENNIUS L F/ L SATRIUS L F/ C MARIUS NO F.⁶⁰⁰ La Regina argues that the adjective *Samnites* especially underlines the native origin of this community and its four magistrates: the ethnic signifier is used to differentiate the original population from other ordinary *incolae*.⁶⁰¹ This interpretation is unacceptable to Galsterer who argues that it is more likely that the *incolae* in question were Samnites who had migrated to Aesernia after the Second Punic War, just as is recorded for Fregellae, where Livy says that 4,000 Paelignian and Samnite families settled in the first half of the second century.⁶⁰² This interpretation fits the juridical definition of *incola* better, since in Roman law the term *incola* is used to describe a resident alien: someone who is citizen of another community other than that in which he lives.⁶⁰³

Recent studies have argued convincingly that, although *strictu sensu* the term *incolae* in the juridical texts of the mid-Imperial period does not refer to native dwellers, the epigraphic and to a lesser extent the literary evidence makes it perfectly clear that it could be used in this sense.⁶⁰⁴ Augusta Praetoria founded by Augustus in 24 is a good example. An inscription mentions the existence of

⁵⁹⁹ For more examples see below.

⁶⁰⁰ CIL I², 3201; For text and the interpretation that they reflect the original inhabitants of the area: La Regina 1970-1971, 451-453.

⁶⁰¹ La Regina 1970-1971, 451-453. He also believed that the native Samnites who continued to live as *incolae* on the territory of Aesernia were numerous. In 225, they numbered 8,650 free persons (the figure is based on the 21.6 persons per sq. km. population density in the Samnite areas which can be deduced from Polybius' (2.24) figure. The territory of Aesernia is estimated to have covered circa 400 sq km). According to this calculation, there were more *incolae* than *coloni* (estimated as 6,000-7,500 free persons) in Aesernia.

⁶⁰² Livy 41.8. Galsterer 1976, 54. For a similar interpretation see Coarelli 1991, 179, who argues that in the period a massive movement of Samnite people to Latin colonies took place. Galsterer says that the *Samnites incolae* were organized in a similar fashion to the well-known institution of the *conventus civium Romanorum*.

⁶⁰³ Digest. (50.16.239.2). See also Gagliardi 2006, 28-39 for a juridical interpretation of this text.

⁶⁰⁴ Mackie 1983, 228-231; Gagliardi 2006, 28-39; Hermon 2007, 28-31; For early references to *incolae* see Licandro 2007. See for example Livy 4.37, who discusses how the Etruscans (*incolas veteres*) had granted the Samnites (*novi coloni*) joint occupancy of the city and the territory.

*Salassi incol(ae) qui initio se in colon(iam) con{t}(ulerunt).*⁶⁰⁵ In this case, the specific reference to the fact that they joined the colony at the beginning strongly suggests that they were the original dwellers of the land which had been confiscated by the colony. Furthermore, in non-juridical texts the term *incolae* is commonly used to denote the native residents.⁶⁰⁶ Importantly, these studies also point out the fact that natives who were not enrolled in the colony did in fact fit the description of residents aliens in the sense that they were citizens of the subjugated *civitas*, which either had lost part of its territory and continued its existence on a reduced scale or had ceased to exist altogether as an administrative unit after the conquest. Such niceties were not necessarily a concern of the Roman or Latin colonists who continued to regard them as citizens of another community, hence as *incolae*.⁶⁰⁷

From a Roman juridical point of view, it is possible that natives joined the colony as *incolae* from the beginning, which is what is recorded to have happened in the case of Augusta Praetoria. However, since the juridical status of *incola* refers to the fact that a person did not live in a territory belonging to the *civitas* of which he was a member,⁶⁰⁸ in theory, all natives without Roman citizenship living on land which was conquered by Rome were *incolae*, regardless of the fact of a colony was sent to that area.⁶⁰⁹ Therefore, it is impossible to conclude that *incolae* were by definition under the jurisdiction of a colony. In fact, the inscription from Aesernia mentions four *magistri*. This suggests that at least they were allowed some form of socio-political organization of their own. It is tempting to recognize these *magistri* as the officials of a *pagus*, an administrative unit which is also known to have been administered by *magistri*.⁶¹⁰ It is known that in Republican times some of these *pagi* had a form of political autonomy and laws of their own.⁶¹¹ Moreover, the fact that there are several references in colonial laws to *incolae contributi* perhaps suggests that joining a colony was not standard practice and that it was possible for *incolae* to exist as separate entities.⁶¹²

⁶⁰⁵ ILS 6753. See also Laffi 1966, 202-203. The specific emphasis on the fact that they were the first *incolae* can be explained as a strategy to acquire a privileged status or even an attempt to be granted citizenship. Such an interpretation is also proposed for the *Samnites incolae* of Aesernia (La Regina 1970-1971). In general, on the inclusion of native residents in the group of *incolae* see Gagliardi 2006, 155-327.

⁶⁰⁶ On this Gagliardi 2006, 1-4.

⁶⁰⁷ E.g. Mackie 1983, 228-231.

⁶⁰⁸ On this Gagliardi 2006, 155-156.

⁶⁰⁹ Tarpin 2002, 224-225; Hermon 2007, 30-31 on the view that the *incolae* lived on the *ager arcifinales*. There is some very tenuous evidence which might suggest that a differentiation was made between alien residence on land claimed by the colony and on land which was nearby, but which did not fall under its jurisdiction (likely *ager publicus populi Romani*). According to a medieval commentary on Lucanus, *incolae* are those who went to the established colony and *accolae* were those who worked alongside the colonial territory. *Accolae* could therefore be a term which refers to those farmers who tilled the fields on the *ager publicus* which was not part of the colonial territory (Bern. In Luc. 4.397: *incolae qui ad coloniam paratam veniunt: accolae qui iuxta coloniam agros accolunt*). See Licandro 2007, 54 for an early text of Plautus (*Aulul.* 3.406-407) which mentions both *incolae* and *accolae*.

⁶¹⁰ Tarpin 2002, 224-225, n. 47; page 220-232, on the general phenomenon of the *pagi* and indigenous communities in colonial contexts, also Hermon 2007, 28-31.

⁶¹¹ Tarpin 2002, 232, n. 73. Particularly relevant in this context are the attestations in inscriptions to *sententia pagorum* and the *lex pagana* of Capua.

⁶¹² On this phenomenon Licandro 2007, 66-71.

This model in which two (semi-)independent political communities shared one territory and possibly even co-existed in the same city, is also known as a ‘double community’.⁶¹³ Since the 1950s, the existence of the double community concept has been increasingly criticized.⁶¹⁴ In Italy, the debate focuses mainly on a series of late Republican veteran settlements (the majority founded by Sulla) in which the literary and epigraphic records differentiate between the old inhabitants and colonists.⁶¹⁵ The case of Pompeii is an outstanding example. In his defence of Sulla, Cicero mentions that Pompeians and colonists had a dispute which was brought before the patrons of the colony who resolved the matter.⁶¹⁶ Apparently, among other contentions, the disagreement was about voting rights. Proponents of the double community theory stress that the fact that *coloni* and *Pompeiani* are mentioned as different groups indicates that they were separate socio-juridical entities.⁶¹⁷ In arguing their case, opponents draw attention to the fact that they appeared at the same trial and that they had a dispute about voting rights which indicates that they formed one political unit, in which the Pompeians did not enjoy equal voting rights.⁶¹⁸ Consequently, the latter view claims that colonists and natives were two different *genera civium* of one single community.

The debate has not ended with these critical studies and the double community theory is still defended or at least accepted in various publications. Gagliardi especially argues that there is ample evidence, above all in the Gromatic sources, for the presence of separate indigenous communities (with their own *res publica*) living in the same territory as the new colonists.⁶¹⁹ So far, both the critics and proponents of the double community thesis have concentrated principally on the situation of the Late Republic and Early Empire and a systematic survey of the mid-Republican evidence is still to be attempted. Below I have collected and shall discuss the evidence relating to the mid-Republican period which suggests the existence of separate native and colonial communities co-existing as two seemingly (semi-) independent communities and I shall review the various interpretations which have been built on it. The aim of the exercise is to understand more clearly how common the practice was and how precisely it was organized.

⁶¹³ E.g. Kahrstedt 1959, 187; E.g. Sherwin-White 1973², 80; Levick 1967, 69. This enigmatic organizational form is also described as *di-polis*, which denotes more narrowly the co-existence of two separate political communities inside one city. The debate about the existence of *Doppelgemeinde* can be traced back to Marquardt 1881, 112.

⁶¹⁴ See Laffi 1966, 111; Bispham 2007a, 451 (both with references) for good overviews of this discussion. For a sceptical position about the phenomenon in Italy see Brunt 1971, 254s. In his view, only the local ruling class was enfranchised in order to deprive the natives ‘of potential leaders in resistance. Enfranchisements of this kind were of the highest political importance, but numerically they may have been insignificant, especially at first.’ (page 255). A possible exception in his view is the rather late case of Taras-Neptunia (Brunt 1971), 538 n. 3.

⁶¹⁵ E.g. Pliny *NH* 3.52 distinguishes between the old Arretines (*Arretini veteres*) and triumviral settlers (*Arretini Iuliensis*) and the Sullan settlers (*Arretini Fidentiores*). Similar situations can be found in Nola, Clusium and Interamna. In general: Tac. *Ann.*, 11. 24; ILS 212. Caesarea Stratonis: Dig. 50, 15, 8, 7. Patrae: Paus. 8.18.7 and CIL III.2756. Pompeii: Cic. *Sull.* 62; Emporiae: Livy 34.9.1.

⁶¹⁶ Cic. *Sull.* 60-62.

⁶¹⁷ See Bispham 2007a, 448-451 (with references) for a detailed discussion and arguments in favour of the double community thesis.

⁶¹⁸ E.g. Brunt 1971, 306; Lo Cascio 1996. Lo Cascio argues that the more numerous old Pompeians had a subordinate political position which was concretized by assigning them fewer voting units than the colonists.

⁶¹⁹ E.g. Gagliardi 2006, 160-176; Bispham 2007a, 445-451.

Before the available evidence pertaining to the existence of double community constructions in a Roman colonial context is investigated, it is important to look more closely at what precisely constituted a double community. In most of the literature, double communities are described as two politically separate communities which share a single territory or city.⁶²⁰ The last provision necessarily implies that both communities are not defined geographically, but that a sense of communality is rooted in different cultural, ethnic or other criteria (i.e. a non-territorial definition of community).⁶²¹

It is important to underline that there are forms of co-existence of colonial and native communities which do not fit the double community scenario. In cases in which two communities formally split a territory, the discussion does not deal with a double community but simply with a territorial rearrangement of two separate *civitates* (a ‘two-state solution’). In late Republican times, some of these indigenous *civitates* with a separate territory were placed under the government of a neighbouring colony. This construction was called a *civitas adtributa*.⁶²² The *adtributi* had to pay the dominant community for the use of the land which in a formal sense was the property of the Roman people and not of the neighbouring colony.⁶²³

The non-territorial form of organization implied by the double community construction is not compatible with the traditional understanding of mid-Republican colonies which sees them as independent territorial states.⁶²⁴ Therefore, evidence of the existence of such a socio-political construction not only offers a different perspective on the fate of the indigenous communities in colonial contexts, it also challenges conventional views about what a colony was. It implies that, in the first place, a colony was a community of people, instead of a state which had sovereignty over a defined territory.

3.1. Possible evidence of double communities in early Roman colonial contexts

Several scholars have suggested that a double community scenario provides the most apt description of the circumstances recorded in Regal and early Republican colonies.⁶²⁵ Although the sources for this early and (partly) mythical period are likely to be corrupted by anachronistic elements, it is interesting to look at how later ancient writers conceptualized colonial-native relations in this period. As has been noted, the sources (in particular Dionysius) strongly suggest that in early Roman history colonists

⁶²⁰ E.g. Kahrstedt 1959, 187; Millar 1993, 240.

⁶²¹ Cf. Kahrstedt 1959, 206 who describes such a form community a *Personalgemeinde*.

⁶²² Fundamental is the study of Laffi 1966. For the view that this construction also existed in the Mid-Republic see Torelli 1999, 94.

⁶²³ No clear evidence of such a socio-political construction in the mid-Republican period exists and most scholars agree that this system was introduced only in the late Republican period and was geographically limited to the Alpine regions. See Laffi 1966, 90-91. A possible early example dating to before the Social War comes from the *Sententia Minuciorum* dated 117, which recalls the financial obligation of the *Langenses Viturui* to Genua (Laffi 1966, 55-61). According to Laffi, *strictu sensu* the example is not a form of *adtributio* because at the time Genua was not a community with Latin or Roman rights, but a *civitas foederata* (Laffi 1966, 61, 90 and 95). Also Galsterer 1976, 53 n. 83, who argues that the system cannot be used to define relationship between natives in colonies in the mid-Republican period. Brunt 1971, 541, however, although he states that the system was developed after the Social War, claims that it might well have had precedents in the south.’

⁶²⁴ On this conception of colonies see for example Laffi 1966, 112; Salmon 1969, 14.

⁶²⁵ E.g. Sherwin-White 1973², 80 n. 4; Levick 1967, 69.

often shared a territory with the original inhabitants of a conquered area. This circumstance in itself does not necessarily point to a double community construction and these passages might just as well be explained as examples of the integration of these communities.⁶²⁶

Although this hypothesis is certainly a possibility, the stories about these colonies strongly suggest that the different ethnic groups did not merge fully and could be distinguished from each other. A good example of this is Circeii. According to a passage in Dionysius (8.14) which describes the siege of Circeii by Marcius, at that time leader of the Volscian forces, he “came to the city of Circeii, in which there were Roman colonists living intermingled with the native residents, with his army; and he took possession of the town as soon as he appeared before it.” Furthermore, it is said that Marcius expelled the Roman colony from the city.⁶²⁷ This statement suggests that it was possible to make a distinction between the colonial migrants and the indigenous people. Differences in the status and living spaces between colonists and natives are also suggested for Antium (cf. above). As a matter of fact, the description in Dionysius closely resembles an *adtributio* construction, under which the natives were placed in a subordinate position and had to pay a fixed share of their produce to the colony.⁶²⁸

In several cases it is explicitly stated that only a part of the territory was taken from the city and divided amongst the Roman colonists (usually one-third).⁶²⁹ This might suggest that colonists and natives formed two new, territorially discrete entities. Especially in the case of those conquered territories bordering on the *ager Romanus* (for example, Ardea, Fidenae, Labici), it is plausible, as Cornell has suggested, that these lands were incorporated as Roman territory.⁶³⁰

3.2. *The situation in the coloniae civium Romanorum*

After the Latin War, Rome launched a policy of annexing communities bordering the *Ager Romanus* by granting (sometimes forcing on) them the *civitas Romana*, often without voting rights. On a local level, the incorporated communities were allowed a considerable degree of self-government, but they were simultaneously citizens of Rome with all the *munera* concomitant with it and were often placed under the supervision of Roman *praefecti*.⁶³¹ The utter extermination of socio-political entities seems to have been fairly exceptional; the fact that post- Hannibalic Capua is always referred to as the worst case scenario in the literary tradition illustrates this point. Usually, a considerable part of the territory

⁶²⁶ Bradley 2006. Cf. above.

⁶²⁷ Livy 2.39.

⁶²⁸ As has been said, this episode is very problematic and it might be an anachronistic creation of Valerius Antias who retrojected the colonial experiences of his own time into the mythical past. Cf. Bispham 2007a, 445, n. 76.

⁶²⁹ Caenina & Antemnae (Dion. Hal. 2.35). Dionysius reports that the colonists sent to these colonies, allegedly founded by Romulus, were allotted one-third of the territory of each city and lived alongside the indigenous population, who were offered the possibility to migrate to Rome and to become Roman citizens. See also the stories about Fidenae (Dion. Hal. 2.53; 5.60). In the case of Velitrae, colonization by Rome was actually requested by the native population. After having suffered great calamity, the people of Velitrae, according to Dionysius, asked the Romans to send colonists to their city (for the second time), to repopulate it.

⁶³⁰ Cf. Chapter 2.

⁶³¹ Toynbee 1965b, 187-188; Humbert 1978.

of the enfranchised community, which later could be colonized by migrants from the City, was confiscated by Rome. Although often both the colonial migrants and the people of indigenous background living in the annexed territory were Roman citizens, the scanty evidence seems to suggest that at least for a period of time they formed independent communities.

Again, Antium is the best documented case. Livy says that in 317 a delegation of Antiates complained in the Roman Senate that they were deprived of a fixed code of laws and of any regular magistrates of their own. In response, Rome commissioned the patrons of the colony to draw up a body of legal regulations.⁶³² The petitioners are generally identified as the indigenous population of Antium who had not been enrolled in the colony.⁶³³ On a coin from Paestum dating to the early second century, the existence of *patroni* in a colonial context is firmly attested to. This lends some support to the credibility of this passage.⁶³⁴ According to the convincing thesis put forward by Torelli, the legend of the Paestan coin, which reads CN. CORN. / M.TUC/ PATR., must refer to Cn. Cornelius Blassio and M. Tuccius, two Roman magistrates who were involved in the foundation of Roman colonies in southern Italy.⁶³⁵ In later times, patrons of colonies often functioned as spokesman for allied communities (possibly their clients) in issues which concerned Roman law.⁶³⁶ It seems likely therefore that the patrons of Antium were also Roman aristocrats, possibly descendants of the founders of the colony in 338 and not local colonial magistrates, as has sometimes been suggested.⁶³⁷

Regrettably, Livy does not clarify what form of juridical position these Antiates were granted nor does he specify what their former status was. Livy (8.14.) does specifically state that the Antiates had already been granted citizenship in 338; what is not certain is whether full citizenship or only the *civitas sine suffragio* was accorded to them.⁶³⁸ Whatever the correct solution is, most scholars agree that, despite their full or partial citizenship, they did not have an administrative urban centre of their own and therefore, they lived in a constitutional vacuum; a situation which ended in 317 when they were either enrolled in the colony or were organized as a separate *municipium sine suffragio*.⁶³⁹ If the

⁶³² Livy 9.20.

⁶³³ See for a good discussion of this passage Sherwin-White 1973², 81-82; Oakley 1998, 565-566 and Humbert 1978, 186-190 with further references. The reading that the petitioners were the indigenous population makes some sense in the contemporaneous political context. Antium was founded as a maritime colony, which suggests that it was only a small settlement. Therefore, although Livy says the native inhabitants could enrol, it is implausible that all Antiates were included (cf. above). After the Latin War, most communities in Latium (including the Antiates) received Roman citizenship in various stages (either with or without *suffragio*). Since colonists were sent to Antium, it is plausible that by 317 the native Antiates were still uncertain about their precise formal status and asked Rome for elucidation. For the view that the petitioners were the colonists see Galsterer 1976, 42. Critics point out the fact that it is implausible that a colony did not have magistrates and laws of its own. However, according to a reading of an inscription from Brindisi, the so-called 'elogium of Brindisi,' by Gabba 1958, it was possible for a colony to exist without a proper magistracy of its own in the early years of its existence. Other readings of this inscription are possible (on this, see discussion below).

⁶³⁴ Crawford 1973, no. 24 pl. X.

⁶³⁵ Torelli 1999, 79-80.

⁶³⁶ Cf. Pompeian problems with voting rights of the indigenous population were brought before the *patroni* (Cic. *Sull.* 60-62). Other examples are the *patroni* who acted as spokesman for *peregrini* before at the court in Rome.

⁶³⁷ Sherwin-White 1973², 81-82. For the view that they may be descendants of the founders of the colony Humbert 1978, 189 n. 126.

⁶³⁸ Salmon 1969, 75-76 and Humbert 1978, 186-190 argue that they received *civitas sine suffragio*. According to Oakley 1998, 566, they were probably granted full citizenship.

⁶³⁹ See, however, below, for a critique on the view that it is necessary for a community to have a city in order to function as a political community.

latter hypothesis is correct, two separate communities continued to exist in the former territory of Antium, even after 317.⁶⁴⁰ It is only possible to speculate about the question of whether they had separate territories or lived mixed intermingled as a double community.

Purely on the basis of archaeological evidence, the existence of another double community in this period has also been assumed to have existed in Minturnae.⁶⁴¹ The American excavations which were carried out under the direction of Johnson in the early decades of the last century revealed parts of a massive wall of polygonal masonry and two square towers which marked the north-east and south-east corners of what were considered to have been the remains of the small (less than 3 hectares) pre-Roman town, probably the Auruncian town of Minturnae mentioned by Livy.⁶⁴² After the conquest of the area, the Roman colonists built their city against the western side of the pre-Roman town using the polygonal fortification as the western limit of their own much larger town, which was fortified to a greater extent using a different masonry technique called *opera quadrata*. Johnson believed that the old town continued to be inhabited by the original Auruncian population. From Johnson's report it is not certain how precisely he believed these two adjacent settlements were administered, but he labels it a *di-polis*, which implies that both communities were considered (partly at least) independent political communities.⁶⁴³

Now, new excavations and studies of the archaeological remains of Minturnae have convincingly demonstrated that Johnson's reconstruction of the early colonial history of Minturnae is incorrect. The pre-Roman date of the polygonal wall especially is now dismissed and it is now attributed to the Roman colony which was founded in 296.⁶⁴⁴ The walls in *opera quadrata* have been re-dated to the late third or early second century and are considered to have been built to fortify the rapidly expanding settlement. In this revised reconstruction, both *castrum* and extended town represent two chronologically different phases of the same Roman colony. Yet, onomastic studies demonstrate convincingly that the demographic growth which necessitated the enlargement of the city was not achieved by the natural growth of the original colonial population, but was the result of the incorporation of new families. Besides newly arrived families of Roman background, there were also families, like the *Gens Carisia*, of local origin, and others of Pealignian and Samnite descent. An attractive theory is that these latter people might have migrated to this area in 177, when Livy reports that 4,000 Paelignians and Samnites migrated to the nearby Latin colony of Fregellae.⁶⁴⁵

⁶⁴⁰ See Salmon 1969, 75-76; Galsterer 1976, 42; Humbert 1978, 186-190 for the separate option. It is uncertain when these communities coalesced, but according to Humbert, this was at least before the late first century. See for the incorporation thesis: Brunt 1971, 541 (who also argues that the Antiates had not received the citizenship before that time); Oakley 1998, 566 and Bradley 2006, 168.

⁶⁴¹ Cf. Sherwin-White 1973², 80-81, n. 4; recently Bispham 2007a, 451.

⁶⁴² Livy 9.25. Johnson 1935, 1-2. The fortification itself was considered to have been of Etruscan or, although less likely, of Samnite origin.

⁶⁴³ Johnson 1935, 85.

⁶⁴⁴ For the foundation date see Livy 10.21. The revised dating is based mainly on the parallel with other known *coloniae maritimae* such as Ostia and Pyrgi, which had a similar small rectangular form and the fact that it post-dates the construction of the via Appia, built in 312, which crosses it. See especially Brandt 1985, 53-65 and Coarelli 1989, 49-50. Johnson later admitted that his initial reconstruction was wrong (*AJA*, 1954).

⁶⁴⁵ Guidobaldi and Pesando in Coarelli 1989, 67-78.

It is impossible to establish with certainty whether the city was enlarged at once or gradually grew in the course of the third century. But, since almost all of the excavated architecture dates to the early second century and it is known from Livy that Antium was among the citizen colonies which did not want to send a contingent of troops in 207, a rapid demographic growth and concomitant urban expansion dating to the early second century seems more likely.⁶⁴⁶ In fact, Livy affirms that the neighbouring maritime colony of Sinuessa was enlarged in 174 on the orders of the censor, F. Flaccus, who added a suburban residential district (*magalia*) to the colony, monumentalized the forum and enclosed the whole new built-up space with walls.⁶⁴⁷

In the rapid growth of Minturnae it is tempting to recognize a fusion of the small colonial community with the people living in the surrounding area. Some of these people were of indigenous origin who had managed to survive in the area after the confiscation of the territory by Rome in the late fourth century and who were very probably granted citizenship not much later.⁶⁴⁸ Others might have been Roman settlers who migrated to this area after the defeat of the Auruncians in 314.⁶⁴⁹ In theory, it is also possible that the people inhabiting the new extension of the town were an independent community (a *municipium*), hence forming a *di-polis*, and that the formal union of both communities only happened during the municipalization of Italy in the early first century (on this see also below). But considering the fact that, in the case of Sinuessa, Livy make no reference to such a political construction this last option seems rather unlikely. Moreover, the *lex de parieti faciendo* of Puteoli which records several colonial magistrates of indigenous background clearly demonstrates that this maritime colony coalesced with the indigenous communities somewhere in the period between 194 and 105.⁶⁵⁰

Additional evidence for citizen colonies which co-existed with indigenous *civitates* comes from two colonies founded after the Second Punic War: Croton and Neptunia. According to Livy, a small citizen colony was founded in the territory of the Greek *polis* of Croton in 194.⁶⁵¹ Although most scholars seem to agree that the entire territory of Croton was confiscated and turned into *ager publicus populi Romani*,⁶⁵² this did not entirely terminate the independent political existence of the *polis* Croton.⁶⁵³ When Livy recalls the illegitimate stripping of the marble tiles of the temple of Juno

⁶⁴⁶ Livy 27.38.

⁶⁴⁷ Livy 41.27. On this passage see Guidobaldi in Coarelli 1989, 40–43 with references.

⁶⁴⁸ The area was enrolled in the Teretina tribe in 299. A praefectura is also recorded as having existed in the area (Humbert 1978, 373). The pre-Roman town of Minturnae is identified with medieval Traetto (modern Minturno). Systematic archaeological examination, however, fails to verify this hypothesis. At the same time, it is still uncertain if the Auruncian *oppidum* was indeed abandoned in 314, after the conquest and total massacre of the Aurunci as Livy says. Livy 9.25, 9: *deleta Ausonum gens*. See Galsterer 1976, 52 for a critical note on Livy's statement; he argues that this should not be interpreted as the actual massacre of all Ausonians, but as the disappearance of the Ausonian socio-political community, since it was incorporated into the Roman State or the Latin colonies.

⁶⁴⁹ Not much later, people from farther away, among them Paelignians and Samnites, might have joined the colony. If these non-Roman families were immediately enrolled in the colony as full members (and consequentially acquired Roman citizenship) or initially were assigned the the status of *incolae* cannot be established.

⁶⁵⁰ For the *lex de parieti faciendo* see CIL X, 1781; on this also Purcell in Frederiksen 1984, 319–337.

⁶⁵¹ Livy 34.45.

⁶⁵² Cf. Toynbee 1965b, 121.

⁶⁵³ Toynbee 1965b, Map 1 suggests it may have been a *municipium sine suffragio*; see also Spadea 2004, 524.

Lacinia in the territory of Croton by the censor Fulvius Flaccus, who wanted to adorn his own temple of Fortuna Equestris in Rome with his spoils, he reveals the following:⁶⁵⁴

Ships were in readiness to transport them, and the natives {*sociis*} were deterred by the authority of the censor from any attempt to prevent the sacrilege. On the censor's return, the tiles were unloaded and carried to the new temple. Although no hint was dropped as to where they came from, concealment was impossible. Protests were heard in the House and there was a general demand that the consuls should bring the matter before the Senate. The censor was summoned and his appearance elicited even more bitter reproaches from all sides. Not content, he was told, with violating the noblest temple in that part of the world, a temple which neither Pyrrhus nor Hannibal had transgressed, he did not rest until he had cruelly defaced and almost destroyed it. With its pediment gone and its roof stripped off, it lay open to moulder and decay in the rain. The censor is appointed to regulate the public morals; the man who had, following ancient usage, been charged with seeing that the buildings for public worship are properly closed in and that they are kept in repair - this very man is roaming loose among the cities of our allies {*urbes sociorum*}, ruining their temples and stripping off the roofs of their sacred edifices.

The episode is dated in 173, two decades after the installation of the Roman colony in the territory. The fact that Livy describes the indigenous community as *socii* and the city of Croton as an *urbs sociorum* seems to suggest that at the time Croton was an (semi-)independent political community which co-existed with the small Roman colony. Although the usage of the term *socius* in a non-juridical text cannot be taken as solid proof of the existence of a separate indigenous *civitas* living on the confiscated territory,⁶⁵⁵ there are some supplementary arguments which support the theory that Croton retained some form of independence.

Until recently, it was assumed that the citizen colony was founded in the town of Croton.⁶⁵⁶ This usurpation left the citizens of Croton without an administrative urban centre and, according to conventional theory, terminated their independent political existence and made them reliant on the small colony for government.⁶⁵⁷ However, recent archaeological studies have provided evidence in support of the view that the Roman colony and the Greek *polis* of Croton were actually two different realities. In Capo Colonna, circa 12 km. to the south-east of the town of Croton, near the famous sanctuary of Hera Lacinia (Latin Juno Lacinia, from which the marble was stripped), recent excavations have revealed a residential quarter, laid out in an orthogonal fashion, whose earliest phase

⁶⁵⁴ Livy 43.3.

⁶⁵⁵ On this see Galsterer 1976, 54. A clear example is Sinuessa. Livy (22.14) calls the colonists 'allies'.

⁶⁵⁶ Cf. Toynbee 1965b, Map 1.

⁶⁵⁷ See below for a discussion of this line of argument.

dates to the middle of the second century. This settlement, which is located at a strategic point on the coast, has been interpreted as the colonial settlement described by Livy.⁶⁵⁸ Three *plateiai* with an east-west direction have been recognized. These were intersected at right angles by various smaller roads, to form rectangular blocks. Within this area, which measures c. 5.5 hectares, several houses have been excavated. These houses date to the second century. In the second half of the first century, a fortification was constructed which included both the settlement and the adjacent sanctuary of Hera Licinia (total of circa 7 hectares). In Greek Croton, archaeological research has been severely hindered by the modern building activities, but from the little which is known, it seems clear that the city continued its existence in the Roman period, although on a much reduced scale.⁶⁵⁹ Furthermore, the city features in the famous novel *Satyricon* (116) where it is described as Italy's first city; an unhealthy and corrupt place.⁶⁶⁰

The archaeological evidence for the existence of two independent urban centres in the territory of Croton does make a double community scenario feasible. It seems fairly implausible that the small colony located on the coast would have been expected to govern the much larger Greek town and its inhabitants and it can certainly be assumed that the latter had some form of political and juridical structures of its own. If it was truly autonomous cannot be established on the basis of this evidence.

Perhaps more convincing evidence that this was the case comes from Neptunia which was founded on the former territory of Taras in 123-122.⁶⁶¹ Pliny the Elder states that this act was not followed by the loss of Tarentine independence.⁶⁶² He suggests that Taras continued to exist for a while as an independent *civitas*, after which it eventually coalesced with the maritime colony to make one administrative unit (the technical term is *contributio*).⁶⁶³ This piece of information is corroborated by Cicero who, in his speech in favour of Archias, states that around 100 the poet was offered Tarantine citizenship.⁶⁶⁴ Cicero claims that the enfranchisement of talented artists was a common practice in the Greek *poleis*. How long the independence of Taras lasted is uncertain. The *Lex Tarentina* (dated between 90/89-44)⁶⁶⁵ provides a good *terminus ante quem*, since in this text no reference is made to the existence of the colony.⁶⁶⁶ After the *contributio*, the name Neptunia disappears completely from the literary and epigraphic record.

⁶⁵⁸ Spadea 2004, 522-523.

⁶⁵⁹ Paoletti 2000, 524-525.

⁶⁶⁰ See for a discussion of the other sources describing Croton in the Roman period Paoletti 2000, 522-524.

⁶⁶¹ E.g. Strabo, 6.3, 4; Vell. Pat., 1, 15, 4 (calls the colony Tarentum Neptunia) Hor. *Carm.* 1, 28, 29; Plut. *C. Gracch.* 8.

⁶⁶² Pliny *NH* 3.99: *in recessu hoc intimo situm, contributa eo maritima colonia, quae ibi fuerat*. (Loeb translation: this is situated in the innermost recess of the bay, and has attached to it the maritime colony that settled there)

⁶⁶³ See Laffi 1966, 109-117 on the subject. On the constitution of Tarentum in general see Sartori 1953, 84-96.

⁶⁶⁴ Cic. *Arch.* 5 and 10.

⁶⁶⁵ See Laffi 2004 with further references.

⁶⁶⁶ According to Laffi 1966, 109-117, the municipal law was actually drawn up as the result of the merging of colony and the *polis*; a view which seems to be corroborated by the fact that the statute mentions both *Ilviri* and *IIIviri* (The existence of *Ilviri* in *municipia* is unusual and is regarded as a legacy of the colony). Crawford and Cloud 1996, 302, argue to the contrary that the colony and the *polis* merged soon after the creation of the colony. Their point is that the mixed titulature (a view

Kahrstedt is convinced that these documents attest to the fact that the colonists of Neptunia formed a *Personalgemeinde* alongside that of the Tarantines, “without being separated from them by a topographic boundary” (*ohne eine topographische Grenze gegen diese*); a situation which lasted until the Social War after which there was no longer any need for the two communities (of Roman citizens) to be politically and socially separate.⁶⁶⁷ This conclusion was soon criticized by Laffi, who argues that the literary evidence suggests that the colony was founded on Roman *ager publicus* which was confiscated from the Tarantines after the Second Punic War.⁶⁶⁸ He believes that the colony of Neptunia was a territorially sovereign community which was geographically separate from that of Taras (that is, a two-state solution).⁶⁶⁹ His main argument is that a Roman colony per definition had territorial sovereignty and that in Roman law there is a specific term to describe a community of Roman citizens without territorial claims, namely a *conventus*.⁶⁷⁰ This is a strong argument but, since it is impossible to state positively that the distinction between juridical categories which was definitively shaped in the late Republican and early Imperial period can be applied to the second century, it is worth investigating in more detail what the literary and archaeological evidence suggests about the location of Neptunia and whether it was indeed physically separate from Taras.⁶⁷¹ The first step is to take a closer look at the precise details of the treaty which was concluded between Rome and Taras after the Second Punic War.

Livy states that, soon after the Second Punic War, envoys of the Tarantines came to Rome ‘to ask for terms of peace under which they might retain their liberties and their laws.’⁶⁷² The matter was brought before the Senate in 208, but no decision was taken.⁶⁷³ Some senators argued for ending the status of Tarentum as an autonomous state (just as had happened with Capua), but this proposal was opposed by Fabius Maximus. Eventually, ‘it was decided that the town should be garrisoned and the entire population confined within its walls until Italy was in a less disturbed state, when the whole question could be reconsidered.’ The passage clearly indicates that at this point the Tarentines remained *dediticii* without rights and property.⁶⁷⁴ Livy does not record what the Senate eventually decided but, as is discussed above, it is clear that the Tarentines eventually regained their laws and

which is ultimately based on Frederiksen 1965) was the result of borrowing clauses from different sources. See however, Laffi 2004, who questions the supposed Gracchan date of the merging of Neptunia and Taras.

⁶⁶⁷ Kahrstedt 1959, 206.

⁶⁶⁸ Laffi 1966, 112-114.

⁶⁶⁹ See also Toynbee 1965a, 119 n. 7, who places Neptunia to the north-west of Taras; in the area which Rome had confiscated from Taras after Second Punic War.

⁶⁷⁰ A *conventus civium Romanorum* was a permanent organization of Roman citizens in the provinces, under the aegis of a *curator* (Berger 1953). Laffi also discusses the term *consistentes* (a term for persons who reside temporarily in a place which was neither their birthplace nor their domicile).

⁶⁷¹ Moreover, the difference between a *conventus* and a *colonia* is not necessarily limited to territorial claims. A *colonia* was an official foundation by the State, whereas a *conventus* was a unofficial settlement (See *RE conventus*, also Sherwin-White 1973², 225). Furthermore, members of a colony were entitled to a piece of land; those of a *conventus* were not. Various places with *conventus* received colonial status in the early Imperial period (see Sherwin-White 1973², 225-227).

⁶⁷² Livy 27.21. After the Pyrric War, the Tarentines had received *pax et libertas* (Livy *per.* 15.1). They were probably hoping for the same deal.

⁶⁷³ Livy 27.25.

⁶⁷⁴ Between defeat and the moment that a formal agreement which established the precise conditions of the surrender was made, the conquered people had the status of *dediticii*, which meant that they had no rights, property or juridical status. Cf. below.

were granted some form of political autonomy. The most pertinent matter at this point is if their territorial sovereignty was also restored.

Livy records a speech by Minnio, a representative of the Seleucid king Antiochus III, who tried to undermine the view that the Romans were the liberators of the cities of Greece by pointing out that Neapolis and Rhegium and Tarentum had to pay *stipendium* and to provide ships under the terms of their treaties with Rome; no direct reference to loss of territory is mentioned.⁶⁷⁵ However, in a later reference, Livy makes clear that *ager publicus* existed in the territory of Tarentum before 169.⁶⁷⁶ He says that the Macedonian Onesimus was enrolled amongst the allies (*in formulam sociorum eum referri*) and that 200 *iugera* of public land in the Tarentine territory was granted him and a house was bought for him in Tarentum.

The existence of *ager publicus* could be taken to support the theory that the town of Taras and the Gracchan colony were two separate states but the information in the literary sources does not fully exclude a double community scenario. Livy is not explicit about the precise nature of the agreement between the Tarantines and Rome, nor does he make it unequivocal that the confiscated areas formed a contiguous territory which was clearly distinguishable from that of Taras. The passage about of the enrolment of Onesimus as a *socius* might suggest that the *ager publicus* which was granted to him was surrounded by or situated in close proximity to that of the *socii Tarantini*. Certainly, the words ‘*agri Tarantini qui publicus populi Romani esset ducenta iugera dari*’ are ambiguous: they can be translated as ‘the (entire) *Ager Tarentinus* which was *ager publicus*’, but also as ‘that part of the *Ager Tarentinus* which was *ager publicus*.’ The latter interpretation is generally preferred. If it is correct, the inference has to be that at least part of the Tarentine territory had been restored.⁶⁷⁷

Some implicit support for the view that Taras did not regain territorial sovereignty is provided by several archaeological studies which have found evidence of a possible colonial settlement within the city walls of Taras. Archaeological research carried out in the area between the *via Regina Elena* and the *via T. Minniti* has demonstrated that this area, which was used mainly as a necropolis until the second century, was reorganized late in that century. In the eastern part of the excavated area, several houses constructed in *opus incertum* were uncovered; plenty of evidence of pottery manufacture was found in the western part, indicating that this area played a part in manufacturing.⁶⁷⁸ The residential-manufacturing quarter has a rectangular shape and covers roughly 12.5 hectares. It is situated on the

⁶⁷⁵ Livy 35.16.

⁶⁷⁶ Livy 44.16.

⁶⁷⁷ The inference that the territorial sovereignty of Taras was limited in the second century is indicated by the fact that, should the need arise, Rome could send a *praetor* with an *imperium* to the region (*provincia*). Such an incident is recorded for 208, 187 and 185. On this see Brennan 2000, 183 and 728-732. The territory assigned to the authority of the *praetor* is often described as *provincia Tarentum*, but it obviously included responsibilities beyond the town and its immediate environs, and even very probably included the whole of Apulia. For the year 185 Livy (39-29), for example, states that: *Tarentum provinciam L. Postumius praetor habebat*. Brennan believes that the full title of the province might have been ‘*Tarentum et Sallentini provincia*’ (Brennan 2000, 183).

⁶⁷⁸ De Juliis 1983, 509-511; De Juliis 1984, 427-429; De Juliis 1985, 563. Andreassi 1986, 374. For an overview see Lippolis 1997; Lippolis 2002, especially 159-160; Lippolis 2005.

eastern outskirts of the classical town and the streets defining the outer limits of this settlement area have a different orientation from those in the Greek town.

If the identification is correct, this suggests that at least part of the town was not returned to the Greek community and remained State property. This situation is surely not what Laffi had in mind with his two city-state solution. Instead it indicates a *di-polis* construction. Some very fragile support for the view that Rome exercised some authority over the city of Taras is found in the passage in Livy referring to the enrolment of Onesimus, who was granted a house in the city of Taras besides his piece of land. Caution has to be observed because, although the passage gives the information that land in the *ager publicus* was given to him (*dari*), the house in Tarentum had to be bought (*emi*). This detail could suggest that Rome did not own any houses in Tarentum and that the domestic space at least had been re-assigned to the Tarentines under the *foedus*. It is also impossible to exclude the possibility that the house in question belonged to a private individual, whose property rights were respected by Rome.

Regrettably, the archaeological evidence of the existence of a colonial settlement inside the town walls of Taras is not very strong. The hypothesis is based mainly on the fact that the new residential/manufacturing area was created in about the same period in which the colony was founded; nothing has been found which points directly to the presence of colonists in the area. The district might equally be interpreted as a pottery production site, with an adjacent residential quarter for the potters. The remark in Lippolis that there is already evidence of pottery production in this area in the Archaic period and the peripheral location of the area strengthens this view.⁶⁷⁹ The emergence of specialized, large pottery production sites is a typical phenomenon of the late Republican period. In Pizzica Pantanello in the Metapontino, for example, excavations have revealed a professionalized pottery production centre dating to precisely the same period.⁶⁸⁰ It is also true that some archaeologists claim to have found evidence of colonial settlements located inside the neighbouring Greek towns of Thurii-Copia and Vibo-Valentia (both Latin colonies).⁶⁸¹ If this could be proved, it would provide a certain measure of support for the theory that the administrative urban centre of Neptunia was located in the city of Taras. However, as I shall discuss below, these identifications are both equally speculative and a satisfactory case can be made for pinpointing a different location of these colonial settlements.

3.3. *Some preliminary observations*

When all the evidence presented above is reviewed, it strongly suggests that Roman colonization did not always eliminate the indigenous community. Nevertheless, very little is revealed directly about the administrative and territorial aspects of this ‘living together’ and in most cases it cannot be said with any certainty whether the native communities truly did have political autonomy and/or independent territory. The settlement excavated at Capo Colonna in the territory of Croton, if correctly identified as

⁶⁷⁹ Lippolis 2002, 160.

⁶⁸⁰ Burgers 1991.

⁶⁸¹ Cf. below.

the Roman colony, might suggest that each community had its own administrative centre. But, if this also meant that they had separate territorial jurisdictions would be going too far at this juncture. Since both communities lived on *ager Romanus*, territorial sovereignty ultimately lay with Rome and there was no strict need to create rigid territorial boundaries.

Whatever the situation might have been, there is nothing in the sources to suggest that the citizen colonies had jurisdiction beyond the lands which were allocated to them and that they were supposed to govern vast areas of conquered territory and the people living in it. An interesting text appropriate to this context is a passage from Hyginus, who discusses the question of the jurisdiction of late Republican and early Imperial colonies:

“But at the same time, let us keep in mind that the following words are often found in laws, when land (taken) from another community has been divided up and prepared for allocation; the wording is: ‘with regard to those lands, those sites, those buildings, between’, say, ‘this or that boundary and this or that river and this or that road, which I shall have granted and allocated, over these lands let jurisdiction and right of enforcement belong to that colony’ to whose citizens the lands will be allocated. Some people want to interpret this to mean that whatever lies within the boundaries mentioned above appertains to the jurisdiction of the colony. But that should not be the case. For no land which has been received, other than that which has been granted and allocated, can be claimed as belonging to the jurisdiction of a colony. In any event, there is often a town within the boundaries mentioned and, since it retains its existing legal status, jurisdiction over this town lies with whoever had it before.”⁶⁸²

Although Hyginus’ treatise was written around AD 100,⁶⁸³ he was probably discussing laws and specific clauses from the Augustan period regarding land distribution to veterans. Apparently there was some confusion in his time about the question of whether a colony had jurisdiction over that part of a confiscated territory which was not allotted to the colonists. In his own time, this might have fallen under the jurisdiction of the colony, but Hyginus observes that this was not so for the Augustan veteran colonies. The laws he consulted suggest that jurisdiction of the non-allotted land and its inhabitants lay with whoever had it before (that is, with the community from which the land was taken).

⁶⁸² *De condicionibus agrorum* (C 84.34-86-4): Sed et haec meminerimus in legibus saepe inueniri, cum ager est centuriatus ex alieno territorio paratusque ut adsignaretur, inscriptum *ous agros, quae loca quaeue aedificia, intra fines* puta *Illos et intra flumen illud, intra viam illam, dedero adsignavero, in eis agris iuris diction cohercitique esto coloniae illius*, cuius ciuibus agri adsignabuntur. uolunt quidam sic interpretari, quidquid intra fines supra memoratos fuerit, id iuris dictioni {s} coloniae accedat. quod non debet fieri. neque enim <ac>ceptum aliud defendi potest iuris dictioni {s} coloniae, quam quod datum adsignatumque erit. alioquin saepe et intra fines dictos et oppidum est aliquod; quod *cum* in sua condicione remaneat, <e>idem est in id ipsum ius, quod ante fuit.

⁶⁸³ Campbell 2000, xxxv.

On its own, this Imperial text does not demonstrate that colonial jurisdiction in the mid-Republican period was also limited to the colonists and the lands which had been assigned to them. But, considering the fact that there is no evidence which suggests otherwise, and, more importantly, that there is some evidence in the literary and epigraphic sources which mentions the existence of indigenous *civitates* in Roman colonial contexts, this scenario must be taken seriously. From an administrative point of view, it also seems rather unlikely that the new community would have been burdened with the supervision of a large number of foreign, potentially hostile people. It is more likely that these people were allowed to continue their long-established political traditions, and that they remained part of their old community, as Hyginus suggests.

Such a scenario fits in better with contemporaneous Roman policies towards conquered people in general. As far as it is possible to tell, the Romans only rarely eradicated the political structures and autonomy of the communities they conquered completely. Usually, the right of self-government was lost only temporarily; just until the moment at which a formal agreement was made to establish the precise conditions of the surrender. Before such an agreement was reached, the conquered people had the status of *dediticii*, which meant that they had no rights, property or juridical status. Often not all the property (and rights) was restored to the *dediticii*. In the most extreme cases, such as Capua, almost nothing was returned, implying that the conquered community ceased to exist as an independent political entity.⁶⁸⁴ Yet there were also instances in which everything was restored. For instance, in the case of the Greek town of Thermae in 211 according to Cicero (*Verr.* 2.2.37), ‘the Senate and people of Rome gave back to the people of Thermae their town, their territory and their laws’.⁶⁸⁵

In most cases, a mid-way solution was chosen which meant that a substantial proportion of the land, property and laws was re-assigned to the now allied community, but a part, which among other destinations could be allotted to colonists, remained the property of Rome.⁶⁸⁶ In such cases, the defeated enemy continued to exist as a self-governing community, although on a reduced territorial scale. This also means that the indigenous community which lived on the confiscated part of the territory was not left without a political structure *per se*; what changed was that they no longer lived on land belonging to that community.

⁶⁸⁴ Only certain categories of movable property were restored to the individual owners (Livy 26.34), nothing to the community as a whole. On this also De Ligt 2008b, 359.

⁶⁸⁵ A similar practice is also recorded for the *servi Hastensium* and of a Celtiberian community in the western part of Spain. For further examples see De Ligt 2008b, 359-360.

⁶⁸⁶ Recorded, for example, in the case of Privernum (see below).

4. What about the Latin colonies?

As seen above, in the case of maritime colonies there is actually little reason to assume that large numbers of indigenous people were immediately subjugated to or integrated into the newly founded colony. Instead, it seems that both communities living in Roman territory were initially organized as separate communities which both ultimately fell under Roman jurisdiction. Territorial claims to the colony were probably limited to land which was the private property of the members of the colony. Any additional land they used remained *ager publicus populi Romani*.

This model cannot be simply transferred uncritically to the Latin colonies. From the point of view of the conventional understanding, Latin colonies were independent political communities with jurisdiction over a considerable rural territory.⁶⁸⁷ Consequently, on this view, a Latin colony was more than a body of migrants or a political community; it was a territorial sovereign state with jurisdiction over all people living in a defined geographical area. Another stumbling-block is that most scholars assume that these colonial territories covered areas which were considerably larger than the lands cultivated by colonists and consequentially assume that colonies governed large areas which were also inhabited by people who were not part of the colonial community (the *incolae*). No doubt, this understanding of colonial territorial jurisdiction has been heavily influenced by the maps on the geo-political situation in Italy, which have assigned extensive territories to colonies. However, as has been shown in Chapter 2, the evidential basis of these territorial reconstructions is meager and leans heavily on the belief that the various communities living in central and southern Italy had clearly definable, attached territories which remained unchanged until the late Republican and early Imperial times. If these fragile territorial reconstructions are rejected, actually very little evidence remains to support the view that Latin colonies had jurisdiction over vast territories and that they were very different from citizen colonies in this respect.

When referring to the foundation of a Latin colony in the mid-Republican period, as a general rule the sources only mention the sending out of a body of settlers and from the second century the amount of land which was distributed is also added, but none refers to the government of adjacent territories and their people. There is some data which suggest that there was more land available to colonists than that which was actually distributed to the individual settlers. This land was not part of the colonial territory, but remained property of the Roman people. Probably the most important indication is line 31 of the *lex agraria* which states:

⁶⁸⁷ Salmon 1969, 14.

‘{--- to whichever colonies or} *municipia*, {or} any equivalent of *municipia* or colonies {(there may be), of Roman citizens} or of the Latin name, land {has been} granted by the people or by a decree of the Senate to exploit, {which land those colonies or those *municipia* or any} equivalent of a colony or *municipium* or of *municipia* (there may be) shall exploit {...}’⁶⁸⁸

The reference to colonies being allowed to exploit *ager publicus* by the Roman Senate or by the Roman people suggests that the inhabitants of some colonies had certain rights to make use of land which was not distributed among the colonists. Although this does suggest that some colonies exploited more land than was distributed to the colonist, the passage makes it perfectly clear that the land was not the property of the colony (hence not part of its territory); it was *ager publicus populi Romani* and ownership and jurisdiction lay with Rome.

Another interesting passage in this discussion is Livy’s description of the fate of the disloyal Capuans: ‘Those who had been deported beyond the Tiber were forbidden to acquire or to hold either for themselves or their posterity landed property anywhere except in the territories of Veii, Sutrium and Nepet, and in no instance was such a holding to exceed fifty *iugera*’.⁶⁸⁹ The passage seems to suggest that there was land in the territories of Nepet and Sutrium which could be acquired by the Capuans. Although this passage shows that land was available in these territories, this does not prove that these colonies had extensive tracts of common land over and above the land they farmed for themselves, which could be acquired by the Capuans. It is just as plausible that the land was *ager publicus populi Romani* which was located within the boundaries of the original (pre-Roman) communities of Nepet and Sutium.

The situation in Thurii-Copia was fairly similar. As described in Chapter 2, Livy mentions that more land was available than was distributed amongst the colonists in the territory of this Greek *polis*. This might suggest that the non-divided land was in some way part of the colony; its common lands. However, the fact that it is reserved for future distribution makes it obvious that the land remained the property of the Roman State and, although it is possible that the colony had some jurisdiction over these lands, this right cannot be deduced from this passage. Interestingly, literary and archaeological evidence suggests that Thurii might have continued to exist as an independent *civitas* after the foundation of the colony (cf. below). This makes it possible that the indigenous people living on the confiscated land remained members of their traditional Greek community in a social and political sense, as the passage of Hyginus suggests (cf. above). This last option is often dismissed with the argument that it is unlikely that non-Romans would have been allowed to occupy *ager publicus populi Romani*. However, on the basis of several passages in the *lex agraria* mentioning *veteres possesores*

⁶⁸⁸ Text: *RS I, lex agraria*, line 31.

⁶⁸⁹ Livy 26. 34.

living on *ager publicus*, it has been convincingly argued that Italian allies were in fact cultivating Roman State land and that these scenarios cannot be rejected out of hand.⁶⁹⁰

If the accounts about the foundation of several Latin colonies are examined in detail, the fact emerges that, in most instances, Rome did not terminate the political communities which lost land to Latin colonists, but enfranchised them as *civitates sine suffragio*, or bound them by a bi-lateral treaty (as *foederati*). Although it is very difficult to demonstrate that the indigenous people living on the conquered land remained part of the surviving indigenous *civitas* in the region, the fact that they existed does make this scenario plausible, especially in view of the socio-political context in which these colonies were founded (cf. below).

Good examples of this are the two Latin colonies Sora and Alba Fucens, both founded in 303, immediately after the Second Samnite War. Sora was a Volscian town which had joined the revolt of the Volscians during the Second Samnite War. Livy says that the people of Sora defected to the Samnites and killed the Roman colonists (*coloni Romanorum*) in 315.⁶⁹¹ In retaliation, the Romans sent an army to the town to avenge the death of their countrymen and to re-establish the colony (*reciperandamque coloniam*).⁶⁹² Livy's reference to colonists who apparently lived intermingled with native inhabitants is problematical since no colony is reported to have been founded there until 303 and the consensus now seems to be that Livy confused the existence of a *praesidium* in Sora with that of a colony.⁶⁹³ It seems certain that, after the capture of Sora, the Romans executed the instigators of the murder of the colonists, but the rest of the population were left unharmed and a garrison was stationed in the town. After a brief period in which the Samnites retook control of the town in 306, it was definitively captured by the Romans in 305.⁶⁹⁴ At that point the people of Sora were *dediticii* and had to wait until the end of the war before Rome decided their status. In the meantime, the Romans went to war against the Aequi who had refused to become Roman citizens. The rebellion was quickly suppressed after Rome had defeated them in combat and had sacked thirty-one of their towns.⁶⁹⁵

After the war, Rome had to make a decision about what should be done with these conquered communities (*dediticii*). The Senate decided that Latin colonies were to be sent to Alba Fucens (Aequian territory) and Sora (Volscian territory). The Aequians and Volscians were simultaneously

⁶⁹⁰ Roselaar 2008, 596-597.

⁶⁹¹ Livy 9.23.

⁶⁹² Livy mentions that Sora was conquered by the Romans in 345 and it is possible that the event was followed by the foundation of a colony, which Livy neglects to mention (Livy 7.28). This would seem to imply that two communities had lived in Sora before the defection to the Samnites in 315. However, the account of Diodorus Siculus (of the same episode) questions this reading (Diod. Sic. 19.72). In his narrative, no reference is made to a colony, it is simply stated that the people of Sora were persuaded by the Samnites to slay the Romans who were among them. At the time of their request, the Samnites themselves took the unknown city of Plestice, which had a Roman garrison, by siege.

⁶⁹³ Cf. Tanzilli 1982, 25 n. 80 and Oakley 2005, 292 with further references. The ancient literary sources often fail to differentiate between *praesidia* and colonies. In the case of Luceria, for example, Torelli 1999 92 n. 19, has argued that the early dating of the foundation of Luceria by Velleius Paterculus (1.14-15) is best explained as the result of the fact that Velleius confused the prior existence of a *praesidium* in the town (reported by Livy 9.26) with that of a colony. If indeed so, the episode cannot be considered an indication of a double-community scenario.

⁶⁹⁴ Livy 9.43 and 9.44.

⁶⁹⁵ Livy 9.45.

granted citizenship without the vote and were placed under the jurisdiction of Roman praetors.⁶⁹⁶ Hence, under the terms of this *senatus consultum*, all communities now living in the former territory of the Aequi and Volsci were Roman or Latin citizens who were designated either *civitates sine suffragio* or as Latin colonists. That these different communities initially did not live together in harmony is demonstrated by the fact that, according to Livy, the Aequi attacked the colony which they considered was located in their territory (*suis finibus*), but were beaten back by the colonists.⁶⁹⁷ If authentic, this passage strongly suggests that the Latin colonists in this area did not include many indigenous people, but were a community of migrants who had to defend their land against the former proprietors. This conjecture is also supported by a controversial passage in Livy who reports that when the twelve defecting Latin colonies, including Sora and Alba Fucens, announced to the consuls that they had no means to furnish either men or money, the consuls responded by saying:

‘You colonists’ they said, ‘have dared to address us, the consuls, in language which we cannot bring ourselves to repeat openly in the Senate, for it is not simply a refusal {to honour} military obligations, but an open revolt against Rome. You must go back to your respective colonies at once, while your treason is still confined to words, and consult your people. 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 might augment its dominion. Whatever duties children owe to their parents, you owe to Rome, if indeed you feel any spark of affection for it or cherish any memories of your mother country.’⁶⁹⁸

There is actually little reason to assume that in cases in which the subjugated communities were not enfranchised, Rome adopted a different policy. As has also been noted, *foederati* were probably allowed to live on land claimed by Rome (probably as *incolae* or *veteres possesores*). Therefore, there was no need to design a different policy for these cases and probably these allies remained members of their old political communities which were bound to Rome by an unequal treaty.

As time passed, the political and juridical divisions between the colonists and indigenous communities living close to one another could have become blurred. Tacitus, for example, recalls how the number of colonists in the colony of Cremona grew rapidly after its foundation as the result (among other reasons) of intermarriage with friendly people from the neighbourhood.⁶⁹⁹ Eventually this intermingling might have led to a formal decision to unify the different communities by an act of

⁶⁹⁶ Livy 10.1. Livy only mentions that citizenship was offered to the Arpinates (Volscians) and the Trebulani (Aequi), but it is likely that these references refer to all Volscians and Aequians in the conquered regions, Humbert 1978, 217-220.

⁶⁹⁷ Livy 10. 1.

⁶⁹⁸ Livy 27.9. The event occurred in 209. See Bradley 2006, 177 for the view that this text is anachronistic.

⁶⁹⁹ See also the passage in Tac. *Hist.* 3.34.

contributio.⁷⁰⁰ Perhaps this is indeed what happened in 199, when delegates from Narnia came to the Roman Senate to declare that their colony fell short of its proper number and that some of alien race (*non sui generis*) had found their way among them and were declaring that they were colonists. The Senate decided that the colony of Narnia would be allowed to enrol new citizens and appointed three commissioners to deal with the case.⁷⁰¹ Although it is not explicitly stated, it seems reasonable to assume that this meant that the ‘false’ *coloni* (most probably Umbrians) were enrolled as full citizens of the colony. This view is strengthened by the fact that in 197, when Cosa was allowed to enrol a thousand new colonists,⁷⁰² these new colonists could be recruited from any community as long as it had not been an enemy alien since the consulship of P. Cornelius and Tiberius Sempronius (218). This suggests that they were of *peregrine* origin, possibly the indigenous people living inside and in the vicinity of the colonial territory.⁷⁰³

In particular, those offspring who were born of relationships between Roman settlers and indigenous mothers might have helped to obscure and complicate the juridical and political differences between the different communities. In the case of Carteia, this seems to have been an important reason to decide to found a new Latin community. Livy says a ‘deputation from Spain, who represented a new breed of men, arrived. They declared that they were the offspring of Roman soldiers and Spanish women who had not been legally married. There were over 4,000 of them and they besought that a town might be given them to live in. The Senate decreed that they should submit their own names and the names of any whom they had manumitted to L. Canuleius and they should be settled on the ocean shore at Carteia. Any of the Carteians who wished to remain there should be allowed to join the colonists and receive an allotment of land. This place became a Latin colony and was called the “Colony of the Libertini”’.⁷⁰⁴

Perhaps a formal coalescence of native and colonial communities also occurred in Brundisium in the late third century. There is ample literary and epigraphic evidence mentioning Brundisini who, on the basis of their names, can securely be identified as being of indigenous descent. The earliest attestation dates to the year 218, during which a certain Dasius Brundisinus was *praefectus praesidii* of the Roman stronghold of Clastidium.⁷⁰⁵ Although the possibility that Dasius was a member of a native *civitas foederata* living in the *Ager Brundisinus* cannot be excluded, it seems plausible that he

⁷⁰⁰ See for a similar story about Ariminum Strabo 5.1.11.

⁷⁰¹ Livy 32.2.

⁷⁰² Livy 33.24.

⁷⁰³ The examples of Narnia and Cosa which asked permission to enrol new citizens unequivocally illustrates the limited political autonomy colonists enjoyed (e.g. they could not decide themselves who could join their political community) and that Rome ultimately decided in matters of incorporation or assimilation of foreigners in colonies.

⁷⁰⁴ Livy 43.3.

⁷⁰⁵ Livy 21.48. Pol. 3.69; See Burgers 1998, 280-281 on this person and for the view that it is indicative of the fact that indigenous people were incorporated into the Latin colony. Burgers discusses more examples of indigenous persons from Brundisium dating to the second century. E.g. Gaius Pulfennius of Brundisium, son of Dazos who is mentioned on an inscription from Dodona in Epirus and who was honoured as *proxenos* (Dated 175/170); L. Rammius *princeps Brundisii* (Livy 42, 17) and Pacuvius (Hier. *Chron.* 156). See Yntema 2006, 99 for the view that Dasius was the *praefectus praesidii* of a contingent of *socii* from the Brundisium region.

was enrolled in the Latin colony.⁷⁰⁶ Of itself, this does not point towards an integration *en masse* of the original Messapian inhabitants of Brundisium. There is also the possibility that Dasius was granted colonial citizenship on an individual basis.⁷⁰⁷ On the other hand, a controversial reading of the so-called Brindisi *elogium* might suggest that he was enrolled in the colony as part of an official act of *contributio*.

The inscription recalls the memorable deeds of an unknown magistrate, who among his other achievements installed the first Senate and *comitia* in the period in which an Aemilius Barbula was consul (attested to 317, 311, 281 and 230).⁷⁰⁸ Gabba has put forward a hypothesis that the unknown magistrate was a local official who installed the first Senate and *comitia* of the colony in 230. The surprisingly late date of this *lectio* (14 years after the foundation of the colony) is explained as the outcome of the fact that the first magistrates of the colony, who were appointed directly by Rome, needed a great deal of time to puzzle out the details of the political organization in this new Latin community. It took them so long because they had to reckon with powerful local elites who had to be given a place in the new colony (Dasius being one of them).

As a parallel to such a course of events, Gabba points out the example of Antium, discussed earlier, which received laws more than twenty years after the official foundation of the colony. The similarity between the two cases is indeed striking but it might actually suggest a slightly different scenario than that put forward by Gabba. As mentioned above, the consensus now seems to be that the Antiates who were the recipients of a corpus of legal regulations (*iura statuenda*) from the patrons of the colony were the indigenous people of Antium. What this meant precisely cannot be established simply on the basis of what Livy has to say, but plausible theories are that they were organized as a *municipium sine suffragio*, or that they were formally incorporated into the colony. If, as Gabba suggests, the *elogium* of Brindisi does indeed reflect a similar administrative act, this might suggest either that the unknown magistrate (a *patronus*) of the *elogium* installed the first Senate and *comitia* of the new community consisting of colonial settlers and indigenous people who were formally united by an act of *contributio*, or that he gave the indigenous community an official legal status as a political community. However, contesting interpretations of the inscription argue that the *elogium* was not for a local magistrate, but for Fabius Maximus (230) or Appius Claudius Caecus (311) who ordered a *lectio*

⁷⁰⁶ Cf. Gabba 1958, 100-101. The fact that the already mentioned Gaius Pulvinnus of Brundisium, son of Dazos, has a Latin name is also pertinent and suggests that his father, Dazos, identified himself with a Latin-speaking community (I thank Michael Crawford for pointing this out to me).

⁷⁰⁷ In late Republican Roman law, it was possible for the founders of Roman colonies '*ternos cives creare*' (Cic. *Balb.* 48). However, as far as is known before the Social War this provision was applied only on very limited scale and was used mainly to enrol honorary citizens. Dasius, who was a noble by birth, fits this profile perfectly. In general on this see Galsterer 1976, 54.

⁷⁰⁸ The text reads: *primus senatum legit et comiti{...} Barbula cos. circum sedit ui{...} diumque Hannibalis et prae{...} militaribus praecipiam glor{...}*.

in Rome.⁷⁰⁹ Unless the missing pieces of the inscription are found, it is unlikely that this controversy will be resolved. For the time being, the theory of Gabba remains attractive but very tenuous.

4.1. *Separate communities, separate cities?*

One of the most important reasons for assuming that the indigenous *civitas* terminated at the time of the foundation of a colony is the belief that colonization must have deprived the original inhabitants of their urban administrative centre (which was either destroyed or taken over by the colony). Consequently, they were left in a constitutional vacuum and became dependent on the colony for government. For several reasons this hypothesis fails to be convincing. The whole idea that a community needs a city in order to have some form of political organization is certainly a mistake and is easily quashed by the evidence from the various Apennine communities which lacked urban centres, but enjoyed developed forms of socio-political organization and were able to mobilize large military forces.⁷¹⁰ Moreover, there is a good deal of archaeological evidence which suggests that the foundation of a colony did not deprive the indigenous population of an administrative centre.

In several colonial territories, substantial, sometimes fortified settlements which co-existed with the newly founded colonial town have been recognized. One example is the Etruscan settlement at modern Orbetello which co-existed with the colonial town of Cosa, located fewer than 5 km. away.⁷¹¹ Perhaps the most unequivocal example of an arrangement of two *oppida* located close to each other comes from Spain. In 169/68 or 152/51, M. Claudius Marcellus founded a colony at a place called Cordoba. Strabo says this place was “inhabited from the beginning by picked men of the Romans and of the native Iberians”.⁷¹² The passage might suggest that, just as in Carteia (cf. above), both natives and Italian immigrants were enrolled in the colony. Interestingly, the archaeological record shows that the construction of the colonial urban settlement (42 hectares) did not spell the end of the indigenous *oppidum* of Colina de los Quemados (more than 50 hectares), located circa 100m. to the north-east of the Roman city. This important pre-Roman settlement continued to exist after the foundation of the colony, surviving until the first century at least.⁷¹³ The presence of a large settlement in the near vicinity of the colonial town does seem to suggest that the colonial and indigenous communities did not fully merge at the time of the foundation of the colony. Whether both communities had their own jurisdiction cannot be established convincingly. In this regard two inscriptions dated in AD 20, mentioning a *uicus Forenis* and a *uicus Hispanus*, are interesting.⁷¹⁴

⁷⁰⁹ Cf. Develin 1976; Muccigrosso 2003, with further references. But see Oakley 2005, 680, who argues against the view that the inscription was dedicated to Fabius or Appius Claudius and states that the thesis adduced by Gabba is the most plausible one.

⁷¹⁰ See for some recent studies of these Apennine communities: Dench 1995; Tagliamonte 1997; Bispham 2007b; Stek 2009.

⁷¹¹ Cf. Carandini 2002, 107; Fentress 2009, 142.

⁷¹² Strabo 3.2.1. See Knapp 1983 for a good discussion of the literary sources about the foundation of Cordoba. The area was conquered by the Romans in 206. It is uncertain if Romans were stationed in Cordoba after the war. But see Knapp 1983, 9, who is rather sceptical about this theory. For Italica App. *Hisp.* 38.205 which co-existed with the large indigenous town of Hispalis and Carteia (cf. above), this does seem to have been the case.

⁷¹³ Ventura, et al. 1998, 88-89.

⁷¹⁴ CIL II², 272, 273.

Although the precise interpretation of these inscriptions is debated, it is tempting to connect these *uici* with the initial geo-political division of the people living in and around Cordoba and Colina Los Quemados.⁷¹⁵

On the basis of predominantly literary evidence, the co-existence of native and colonial *oppida* has been proposed for the Latin colonies of Copia and Vibo-Valentia, which were founded in the decade after the Hannibalic War. Livy says that the decision to found a colony in the territory of Thurii was taken in 194 and A. Manlius, Q. Aelius and L. Apustius were appointed to supervise the event.⁷¹⁶ The following year, the colony in the territory of Thurii was settled in a place called Castrum Frentinum.⁷¹⁷ Contrary to traditional practice, but recalling the situation recorded in Taras, the colony had a different name to that of the town in whose territory it was founded.⁷¹⁸ After the Social War, the colonial name disappears from the epigraphic record and the town continued as a *municipium* under its old name.

The fact that Livy clearly states that the colony was founded in the *Ager Thurinus* in an unknown place called Castrum Frentinum and that it had a different name to the city has led some scholars to draw the conclusion that the colonial administrative centre of Copia was not founded in the Greek town, but that it was located somewhere in the confiscated part of the territory.⁷¹⁹ Toynbee suggests Doria as a potential site for the colonial town centre. In that modern locality, which is located circa 10 kilometres to the west of the Greek town, archaeological remains of a Roman settlement have been discovered.⁷²⁰ In his view, the creation of the Latin colony implied that the Thurian territory was divided into two parts; one became the territory on the Latin colony; the other remained the territory of a *civitas foederata*. After the Social War, these separate territorial communities coalesced into one, just as in the case of Taras.

This two-city solution has found little support and nowadays is rejected by most scholars. One of the most salient problems is a passage in Strabo which unambiguously states that the name of the

⁷¹⁵ According to some scholars, the two *uici* mentioned reflect an original division of the colonial town into two separate areas; one clustered around the colonial forum where the immigrants dwelled; the other located in the southern part of the town, near the provincial forum, where the indigenous component lived Knapp 1983, 13. This theory is believed to be supported by the discovery of a wall, dated to the Roman period, which ran from east to west and divided the city into two. For a critique on this *di-polis* composition of Republican Corduba see Stylow 1990, 278-279. Stylow points out the fact that the existence of a wall which divided the city into two is not at all certain; the sections of the Roman wall structure which have been recognized are more likely to have belonged to the sub-structures of the provincial forum. Moreover, the putative splitting of the city into two areas cannot be convincingly proved on the basis of the epigraphic evidence. Imperial cities were usually divided into several *uici*, which makes it unlikely that Cordoba was split up into no more than two. What is more, the inscription mentioning the *uicus Hispanus* was found just to the north of the supposed division line, hence in the *Forensis* area. A different variant of the *di-poleis* thesis has been proposed by Bendala 1990, 32-34. In his scenario, the *di-polis* was not composed of two separate communities living inside the Republican town centre, but consisted of the colonial settlement and the indigenous *oppidum* of Colina de los Quemados.⁷¹⁵ In his view, the co-existence of two nuclei of population in close proximity to each other can be defined as a *di-polis*, which coalesced into one new *civitas* soon after the deduction of the colony in conformity with the practice of *contributio*. See also Ventura, et al. 1998, 88 for a similar view.

⁷¹⁶ Livy 34.53.

⁷¹⁷ Livy 35.9.

⁷¹⁸ Livy does not reveal the name of this colony, but from Strabo (6.1.13) and numismatic evidence it is known that that its augural name was Copiae/ Copia.

⁷¹⁹ E.g. Toynbee 1965b, 662; Cantarelli 1996.

⁷²⁰ Toynbee 1965b, 662. For the Doria site see Kahrstedt 1960, 94. Other suggested locations are: somewhere between Morano Calabro and Castrovillari. On this see Cantarelli 1996 with references.

city was changed to Copia after colonists were sent there.⁷²¹ On its own, this passage can hardly be regarded as a conclusive argument against Toynbee's thesis, since it conflicts with the account of Livy and can easily be explained as a misrepresentation by Strabo, who did not understand the event described in his sources.⁷²² In a brief remark in his footnotes, Brunt says that numismatic evidence also shows that Copia replaced the Greek *polis*.⁷²³ The coins to which he refers show a Cornucopia with the legend on the obverse and a veiled woman on the reverse. The veiled woman is thought to represent the personification of the conquered city, which was now called Copia.⁷²⁴ Furthermore, archaeological investigations carried out in Thurii have revealed that the city continued to exist into the Roman period and that a new fortification (known as the *muro lungo*) was built to enclose a reduced city area. The excavators suggest that the smaller town enclosed by this wall is Copia.⁷²⁵

Recently, Caruso has rekindled the two-city hypothesis. In a short article, she argues that there is no evidence whatsoever to justify the identification of the Roman phase in Thurii with the Roman colony of Copia.⁷²⁶ In the epigraphic record of the Roman period only the toponym Thurii is attested to and all recorded magisterial titles pertain to a municipal form of organization; no specifically colonial magistrates are known.⁷²⁷ Moreover, just as most of the excavated Roman architecture, the *muro lungo* which enclosed the Roman phase of the town was built only in the first century; therefore at the time the settlement became a *municipium*.⁷²⁸ In her view, rather than supporting the replacement thesis, the numismatic evidence points in a very different direction.⁷²⁹ Recent excavations carried out on the impressively fortified site of Castiglione di Paludi, which was inhabited from the Late Bronze Age, have revealed fifty-six specimens of Copia coins; most of them are of small denominations which suggests that they were used locally. Strikingly, during the many excavations which have been undertaken in Sibaris-Thurii, only five such coins have been discovered. Caruso believes that the surprisingly high number of Copia coins in Castiglione makes this settlement a convincing candidate for the location of the Latin colonial administrative centre; a hypothesis which is strengthened by the fact that the impressive fortification of the site fits the description of a *castrum* perfectly.⁷³⁰

Simultaneously with the decision to found a colony in Thurii, a bill was passed to send a second Latin colony in *Bruttios*, which was supervised by Q. Naevius, M. Minucius Rufus and M.

⁷²¹ Strabo 6.1.13.

⁷²² For a good discussion of the sources about Copiae see Zancani Montuoro 1973.

⁷²³ Brunt 1971, 538 n. 3. For the coins: *BM Italy* 303- 1 and 2.

⁷²⁴ See for similar view Paoletti 2000, 534. However, other readings are also possible. The woman is also interpreted as Isis (in *BM Italy*, 303) and need not represent Thurii at all (see Caruso 2004).

⁷²⁵ See for an overview of the recent excavations and the interpretation of the Roman phase of Thurii: Greco, et al. 1999; Carando 1999.

⁷²⁶ Caruso 2004.

⁷²⁷ Caruso 2004, 94. One inscription (CIL I², 1694) with the text (*---uti L.f. IIIvir{f}i}---piensis---orus*) could be read as Copiensis. The reading is debated and more importantly Copiensis could also be a cognomen. In any case, the mentioning of people of Copia does not prove that they came from old Thurii.

⁷²⁸ Greco, et al. 1999.

⁷²⁹ She points out the fact that the iconography of the coin can be understood in different ways. Even if the interpretation of the veiled woman with Thurii is right, this does not prove that Copia was founded in the city of Thurii or that the whole Thurian territory was now ruled by the colony.

⁷³⁰ Caruso 2004, 97.

Furius Crassipes.⁷³¹ Two years later, in 192, a colony was founded at Vibo, the former Greek *polis* of Hipponion, which had been conquered by the Bruttians in the late fourth century.⁷³² Again, in this instance Livy does not reveal the augural name of this colony, but from epigraphic and numismatic evidence⁷³³ and from a passage in Pliny it is known that the colony was called Valentia.⁷³⁴ Unlike the situation in Taras and Thurii, the colonial name does not disappear after the municipalization in the Late Republic, but is combined with the old Bruttian name of the city and becomes Vibo-Valentia.

The size of the former territory of Hipponion/Vibo is difficult to establish, but from Livy we know that more than 160 sq. kms was distributed to Latin colonists.⁷³⁵ In contrast to the situation in Thurii, Livy states that the colony *Vibonem deducta est*, so there is no specific reference to a foundation in the territory of Vibo. Kahrstedt, who accepts an older tradition, argues that therefore both communities must have lived together as ‘*foederierte Personalsgemeinde {...} Natürlich ohne die Grenze auf der Landkarte.*’⁷³⁶ As supplementary evidence for his thesis, he refers to a study by Crispo who suggests that a passage in Cicero’s *in Verrem* (II 5, 40 f) attests to the existence of a double community in Vibo.⁷³⁷ In his speech, Cicero repeatedly refers to a delegation of Valentini whom he describes as *homines honestissimi*. Their spokesman, Marcus Marius, testified to the misconduct of Verres when he was in Bruttium.⁷³⁸ These Valentini came from a famous and important town (*Valentinis ex tam illustri nobilique municipio*), which can plausibly be identified with Vibo. The fact that these noble *Valentini* probably lived in Vibo might be taken to suggest that the colony of Valentia was also located in Vibo, in which case this would have been a double community construction. However, it is also possible that these Valentini moved to Vibo after the coalescence of both communities in aftermath of the Social War.

The archaeological record shows that the Greek-Bruttian town was fortified with an impressively long, stone-built city wall enclosing an area of circa 250 hectares and that there were large empty spaces inside the town.⁷³⁹ Initially, it was argued that in the Greek and Bruttian period, habitation clustered mainly in the southern part of the town, on the higher ground, beneath the medieval city. By contrast, the archaeological remains of the Roman period were believed to have been concentrated mainly in the lower north-east part of the town.⁷⁴⁰ This spatial division between Roman and Greek material has led to the conclusion that the Romans had founded a new settlement in

⁷³¹ Livy 34.53.

⁷³² Livy 35.40.

⁷³³ Cf. Kahrstedt 1959, 187.

⁷³⁴ Pliny *NH* 3.5, 73; *Hippo, quod nunc Vibonem Valentiam appellamus*. Vell. Pat. I.14.8, however, mentions the deduction of a colony called Valentia in 237. See Lombardo 1989 on this problem. He argues that the passage of Vell. Pat. could refer to a colony named Valentia in the Po Valley.

⁷³⁴ Livy 35.40. on the earlier history of Vibo see Lombardo 1989, 441-454.

⁷³⁵ Livy 35.40 says that 3,700 *pedites* and 300 *equites* were sent to Vibo. *Pedites* received allotments of 15 *iugera*, while *equites* were allocated twice as much.

⁷³⁶ Kahrstedt 1959, 187. For the earlier tradition: Ciaceri 1932, 210; Magaldi 1948, 243. Kahrstedt even suggests (page 188) that a third community lived on the territory of Vibo: the inhabitants of Terina.

⁷³⁷ Crispo 1941, 2.

⁷³⁸ Cic. *Verr.* II, 5, 16. See also *Verr.* II, 2.40, 99.

⁷³⁹ On the walls see Aumüller 1994.

⁷⁴⁰ See Iannelli and Givigliano 1989 for an overview of the archaeological research in Vibo.

a previously uninhabited area of the city at the time of the Latin colonization.⁷⁴¹ The reconstructed settlement configuration strongly suggests a *di-polis* situation in which natives and Romans lived within one city, but were clearly separated from each other.

The picture has changed somewhat. A more recent study of the urban topography undertaken by Iannelli and Givigliano in the late 1980s has found material dating to the Greek period in various locations in the 'Roman town', which indicates that the so-called Roman town was located in an area previously inhabited, at least partially.⁷⁴² Nevertheless, these scholars agree with the hypothesis that the Roman settlement was created inside the Greek-Bruttian town, on the lower ground. One of their arguments is that an orthogonal grid (*insulae* of 35x53 m., c. 1x1.5 *actus*) has been recognized in the medieval and modern street plan. This grid is thought to have been created during the reorganization of the city that took place at the time of the installment of the Latin colony.⁷⁴³ This argument is very weak, especially since the dating of the supposed reorganization of the city in an orthogonal fashion is based entirely on the literary evidence which mentions a colony and is not corroborated by any archaeological or epigraphic evidence.⁷⁴⁴

A different scenario is supported by some fragile epigraphic evidence from the *Lapis Pollae* of the second century.⁷⁴⁵ The inscription mentions, among other information, the creation of a new road (the via Reggio-Capua) and mentions the distance between various cities through which the road passed. The distance between Valentia and Regium is also given on it: 57 Roman miles (circa 85 kms). However, on the much later *itinerarium Antonini*, the distance between Regium and Vibo is recorded, as 68 miles (circa 101 kms). Albanese has postulated a theory that the discrepancy of c. 16 kms between the distances given in these two sources attests to the fact that Vibo and Valentia were two different places. He believes that Vibo was situated on the coast, whereas Valentia was located farther inland.⁷⁴⁶

The archaeological and epigraphic evidence of separate administrative centres in the cases of Copia and Valentia is fragile, but even if the traditional theories that these colonies were founded in the Greek cities are accepted, this does not necessarily imply that the native communities were deprived of their political institutions. The co-existence of several independent communities in a

⁷⁴¹ For a critical discussion of this view see Iannelli and Givigliano 1989, 677-681 with further references. In the in the via S. Aloe, early excavation revealed a monumental stone structure, which at the time was interpreted as the Roman town wall (Perotti 1974, 132). Perotti argues that epigraphic evidence which commemorate the restoration of the city walls must refer to the Roman walls and not the Greeks walls.

⁷⁴² Iannelli and Givigliano 1989, 637. They argue against the theory that a wall was constructed in the centre of the town which surrounded the Roman settlement. They believe the archaeological and epigraphic evidence is unconvincing and that the location of a wall on low-lying ground is strategically unsound. See, however, Lattanzi 2005, 470 who accepts the existence of a Roman wall and dates it to the second-first century.

⁷⁴³ Iannelli and Givigliano 1989, 677-681.

⁷⁴⁴ See Chapter 2.3.2. In fact, the epigraphy of the town indicates an upsurge in building activity (e.g. the restoration of the city walls) in the late Republican period (Perotti 1974).

⁷⁴⁵ For the inscription see CIL I, 638; CIL X, 6950.

⁷⁴⁶ Albanese 1962, 34-36.

single city has been convincingly demonstrated for Emporion, which was inhabited by an indigenous, a Greek and a Roman colonial community. All three seem to have had their own urban districts.⁷⁴⁷

Rather similar arrangements have also been proposed for some of the Latin colonies founded on Italian soil. For example, according to the thesis put forward by Greco the Greek-Lucanian town of Poseidonia (80 ha.) was extended in the east by 50 hectares to make room for the colonists. The evidence of this theory is very tenuous but, if he is correct, this suggests that the colonial settlement did not replace the Greek-Lucanian town but was built alongside it, leaving the indigenous settlement almost untouched.⁷⁴⁸ Although most scholars accept the theory that both colonists and natives lived inside the town, it is often assumed that migrants and natives were united in a single socio-political community (either as full citizens or with inferior rights for the indigenous population).⁷⁴⁹ This idea follows from the fact that the political heart of the town, the forum, was remodeled in a Roman fashion after the inauguration of the colony and especially because the most important political structure of the Greek-Lucanian town, the *ekklesiasterion*, went out of use at the time of the foundation of the colony.⁷⁵⁰ However, Crawford thinks that a better date for the filling of the assembly place is around c. 200, which means that it could have functioned alongside the *Curia* and *Comitium* for at least for a couple of generations.⁷⁵¹ This remains to be investigated.

Similar arrangement have been proposed for Beneventum and Luceria. To the west of the modern town of Benevento in an area called Cellarulo, evidence of a settlement (connected to the production of pottery) has been identified dating from the fourth century BC to the second century AD.⁷⁵² Initially, this area was believed to be the Latin colony which replaced the earlier Samnite settlement.⁷⁵³ Recently this hypothesis has been abandoned, since more and more Republican material has been found in the modern urban centre of Benevento and an orthogonal grid has also been recognized which is connected with the Republican phase of the settlement. Of the wall circuit, only few traces survive, but in the east it probably followed the course of the still visible Longobardic walls. In the west, traces are faint, but it is suggested that it follows the line of a natural slope in the landscape, located close to the via Luca Mazzella, where structures have also been identified and from where the cryptoportico starts. This walled area is now considered to have been the actual colonial settlement (c. 55 hectares). In this interpretation, the first identified settlement, known as the *città bassa* (c. 40 hectares) which includes the Cellarulo area, was the location of the indigenous settlement, which formed a separate settlement nucleus until the first century when the area was added to the

⁷⁴⁷ For a recent discussion Tang 2005, 107-117 with references.

⁷⁴⁸ Cf. Greco 1988, 82 and page 80 fig. 1. This hypothesis has been rejected in more recent studies (see Lackner 2008, 139-140 for an overview of this debate).

⁷⁴⁹ Cf. Torelli 1999, 45.

⁷⁵⁰ The active political use of this structure during the Lucanian phase is demonstrated by various Oscan graffiti found both inside and nearby the assembly place. On this see Gualtieri 2003, 22-24.

⁷⁵¹ Crawford 2006.

⁷⁵² Cipriano and De Fabrizio 1996.

⁷⁵³ See for this discussion Torelli 2002, 106-115 with further references.

town.⁷⁵⁴ In Luceria, the existence of a separate colonial settlement has also been assumed. Within the fortification which enclosed a vast area of 195 hectares, a regular street grid covering an area of c. 40 hectares has been recognized in the southern part of the city. This orthogonal grid is considered to have been created at the time of the Latin colony and is interpreted to be the colonial settlement.⁷⁵⁵ Nothing is known about intra-mural habitations which are located outside this rectangular shaped settlement.

The identifications of the colonial settlements discussed above are very tenuous and are often based on dubious clues such as an orthogonal street grid based on the *actus*. None of these street grids has been excavated and properly dated, which means that it is possible that the orthogonal grids date to other periods in the history of the cities. Nevertheless, the better investigated examples from Spain lend some support to these theories which assume that colonial and native settlements were placed alongside each other.

5. Reconciling the evidence

I have argued that Roman conquest and subsequent colonization did not always extinguish the indigenous community and traditional political structures. On the contrary, it seems that the general practice was to leave as much as possible of the local administration in the hands of those who had it before. Of course, as a consequence of the practice of land confiscation, the territorial claim of conquered communities was considerably reduced. The indigenous people living on these confiscated lands are likely to have remained members of their original socio-political community, regardless of whether they had been incorporated as a *civitas sine suffragio* or continued to exist as an independent *civitas foederata*. This point of view assumes that colonization did not change the basic system of organization; it just added a new community to the area. There is little reason to suspect that from the outset these colonies were expected to control and administer all the confiscated land and people living on it in the area. In principle their jurisdiction was confined to the area allotted to the colonists. The view that they controlled much larger areas is based on an erroneous, anachronistic reconstruction of their territorial boundaries which is best discarded.

From a late Republican juridical point of view, all the indigenous people without Roman or colonial citizenship living in a territory which was claimed by Rome were foreign residents (*incolae*). This does not mean *per se* that they were subordinated to the colony either legally or administratively. Only if they were engaged in activities in areas obtained by colonists might they have fallen under colonial law. The *incolae Samnites* from Aesernia fit this scenario: their residence was in the colony, but the fact that they call themselves Samnites is indicative of this assumption and might be taken to

⁷⁵⁴ Torelli 2002, 109.

⁷⁵⁵ See Lippolis 1999 4-7.

suggest that their political and military obligations (*formula togatorum*) were still with their original tribe.

The epigraphic evidence demonstrates that during the Late Republic Rome granted some *municipia* and *colonia* the right to collect a *vectigal* from various indigenous communities living on *ager publicus populi Romani* (the *civitates adtributae*). Although this illustrates a (financially) subordinate position of the native communities in the colony, it also proves that the places where these people lived were not part of the colony; formally the land belonged to Rome. In any case, the existence of this system cannot convincingly be traced back to the pre-Hannibalic period. The only evidence for its existence in earlier Roman history is the episode concerning the foundation of a colony at Antium in the early fifth century. However, there is a strong possibility that this particular passage is contaminated by the experiences of colonial-native relations in later times.

In time, the ties and interaction between colonists and natives probably intensified and the original geo-political and juridical division between them became blurred. The decision to unite communities which lived close by each other through an act of *contributio* could be formally taken. Especially in the case of the communities which had already had been granted Roman citizenship *sine suffragio*, and later on full Roman citizenship, few legal and administrative barriers stood in the way of a union, if desired. The case of Minturnae is particularly interesting. In the late-third century the small garrison town of only a few hectares was considerably extended and transformed from a small fort-like settlement into a proper town. It is tempting to regard this transformation as a reflection of the merging of the colonial and indigenous communities.

But in those regions farther away and conquered at a later moment in time, as far as anything is known, no Roman citizenship was offered to people living on confiscated lands. This probably meant that they continued to live as *peregrini* (foreigners) on Roman soil and in a political, juridical and military sense were still part of their former peregrine *civitas* or, less likely, governed by Rome as subjects. This situation might have lasted until after the Social War when the granting of citizenship and the reorganization of Italy into municipal districts offered the opportunity to unite scattered colonial and peregrine communities (just as is recorded for Taras-Neptunia). In several instances, this might have occurred earlier. Especially in the period after the Second Punic War, when several colonies suffered from population shortages and were allowed to enrol new citizens, it is likely that indigenous people or illegitimate bastard children joined the colonial community. There is little evidence to suggest that the formal integration of native and Latin colonial communities happened on a large scale before the Hannibalic War. Perhaps, the reports about the Antiates and Brundisini receiving laws more than a decade after the foundation of the colony might be an indication of such a situation. This evidence is very tenuous and in both cases it is equally possible that the indigenous communities were allowed to form independent political communities. For most colonies a post-Hannibalic date seems more probable for the complete integration of indigenous and colonial communities.

Chapter 6.

CONCLUSIONS

This book has critically analysed the evidence for the organization of Roman colonial territories in the period before the Gracchi. In conventional models, the colonial countryside has been characterized as consisting of rigid systems of land division and a dense network of isolated, mono-nuclear peasant farms which were situated at regular intervals from each other. The question of when exactly these characteristic colonial landscapes first developed is often sidestepped, but most scholars implicitly seem to agree that they go back at least to the fourth century. Although the literary sources say that the Roman colonization programme was much older, it is believed to be more likely that only after the Latin War in 338, when the Romans became the dominant political power in Central Italy, did they devise their successful imperial strategy which, besides ingenious enfranchisement policies also consisted of a sophisticated colonization programme. The most probable example for their newly developed colonial policies has been thought to be the Greek colonies which by this time were heavily influenced by Hippodamian orthogonal city-planning and territorial organization. Since this formula also proved to be successful in the Roman colonial context, it was continued with only minor changes deep into the Imperial period.

Times have changed and recent revisionist studies have cogently argued that the static, State-organized understanding of mid Republican colonization is the result of anachronistic ideology and schematization. These studies have focused especially on the issue of how such biases can distort a proper identification of particular discovered urban buildings. So far, much less attention has been paid to the surprising scarcity of archaeological evidence in these colonial towns dating to the fourth and third centuries. Traditional explanations of this situation have focused on problems in detecting the early strata of settlements which were built over in later times or, and this is the more popular explanation, on the notion that specific historical circumstances, such as wars, impeded the colonists in accomplishing their task of building the monumental city which was envisaged at the outset. Although these possibilities cannot be wholly discarded, it seems worth considering another option, namely that colonial *oppida* in this period were not meant to be monumental and fully built-up towns at all and that this concept developed only in the late third and second century when a large number of other Italian towns were being monumentalized as a consequence of Hellenistic influences.

A similar situation can also be detected in the countryside which has been the prime subject of this book. During the numerous field survey projects which have been undertaken in these landscapes, only very few traces of colonial farmsteads have been identified. This discovery has contrasted strongly with the densely populated and regularly organized peasant landscape which was expected.

Explanations for this mismatch have all focused on the problems concerning the archaeological detection of these rural and possibly flimsily constructed buildings. The possibility that the recorded emptiness in some way reflects an actual settlement pattern has not been considered properly. Yet, the evidence on which the conventional model of colonial settlement organization is based is very fragile and might be biased by similar anachronistic expectations to those which distorted the proper interpretation of colonial city organization. This book, therefore, has critically re-examined the traditional understanding of colonial rural organization, focusing especially on issues of population density, land division, settlement organization and geo-political arrangements.

Interestingly, my analysis of these issues shows that the traditional model of colonial settlement organization is not based purely on the literary texts dealing with the mid-Republican period - which actually reveal little about these topics -, but is above all the result of a synchronic use of data from different time periods. If the fragmentary data is studied diachronically, marked changes in colonial policies become visible. Such an approach shows that Roman colonial practices changed over time and did not spring like Athena, full-grown from the head of Zeus. Moreover, it places the introduction of the monumental and geometrically organized Roman colonial landscape at a later moment in time. The crucial period appears to have been the late third to early second century and not, as was previously assumed, the period immediately following the Latin War.

Disentanglement of the peasant landscape model

Important clues which have prompted the view that colonial territories were settled regularly with isolated farmsteads are the numerous references to the division of land into equal parts assigned to colonial settlers. In combination with the traces of the land division systems which have been identified on aerial photographs of former Mid- Republican colonial territories, this has led to the assumption that the rigidly divided colonial landscapes described by the *agrimensores* developed early in Roman history. At first sight, these indications are compelling and indeed seem to support the view that the typical Roman colonial practices began early in the Mid-Republic. However, on closer inspection, it turns out that the building blocks of this argumentative edifice are very weak. The first objection is that the literary sources only begin to report the handing out of substantial and equally sized holdings for the period after the Second Punic War. Before that time, only a few references to the allocation of very small allotments, which were much too small to sustain a family, are recorded for citizen colonies and for viriatae land division programmes. This lacuna has generally been passed over in silence and the consensus has been that ancient historians like Livy simply forgot to mention the sizes of the allotments distributed or that for some reason this information was lost and could not be consulted in the late Republican period. These explanations fail to convince.

From the late fifth century and thereafter (Labici is the first case), Livy follows a consistent pattern in describing the decisions to found colonies: he begins with the *senatus consultum* (or in a few cases the plebiscite) which ordered the foundation of the colony, followed by the number of settlers,

the amount of land they were granted and, less frequently, the names of commissioners who supervised the event. This chronographic style gives the impression that the source of this information was some sort of official list which went back to at least 418. If this assumption is indeed correct, the consistent absence of references to allotment sizes for the Latin colonies founded before the Second Punic War must be considered meaningful. But, even if it is assumed, that the chronographic style is merely a stylistic device adopted by Livy (or his annalistic source) to give his reports more authority, it is difficult to explain why he consistently left out information about allotment sizes for the period before the Second Punic War. Therefore, the most plausible conclusion is that the absence of information is significant. In any case, the view that there is literary evidence which suggests that equally divided peasant landscapes existed before the Punic Wars is certainly wrong.

Moreover, the evidence of the existence of land division grids in these early colonies must also be questioned. Critical examination of these grids has shown that they cannot convincingly be connected with the foundation of a colony in the pre-Punic War period. Especially problematic are the arguments which have been used to date these grids. Conventional theory asserts that a special type of *limitatio* consisting of parallel lines only is characteristic of Pre-Hannibalic Roman land division systems. The majority of the grids attributed to mid-Republican colonies has been dated on the basis of this typological criterion only. However, as Campbell has convincingly shown, the *agrimensores* make it very clear that this type of land division was also practised in the Imperial period. Since most mid-Republican colonies received new settlers in the Late Republic and Imperial periods, it cannot be excluded that the traces recognized belong to land division programmes dating to these later periods.

In quite a few cases, doubts can even be raised about whether these recognized systems have something to do with Roman colonial practices at all. Surprisingly, the distances between the lines of several of these grids are not measured in *actus* and instead the Oscan *uorsus* or Greek *plethron* have been preferred. The fact that there seems to be a geographical pattern in the units of measurement used (see Fig. 15) also suggests that these grids were created by local or regional initiatives and not by a central Roman government which sent out a small army of engineers to create impressive land division systems and other large-scale infrastructural works prior to the arrival of the colonists. Almost without exception, these land division lines are positioned either perpendicular to or in line with the natural relief of the territory. As these lines are often channels, it seems obvious that they were created to control the hydrological conditions in the area. Therefore, there is a good possibility that their prime function was not the demarcation of (allocated) land, but that their construction was motivated by land improvement strategies. If indeed this assumption is correct, this implies that there is no longer a strict need to connect these systems with land division programmes.

Probably one of the most important arguments for believing that these systems were related to early colonial land division programmes is that it is considered unlikely that Rome developed the complex orthogonal system of colonial land division (*centuriatio*) known to have existed in the late Republican period out of nothing. In an evolutionistic framework, it makes sense that more primitive

and experimental stages of land division systems existed before the archetypal centuriated colonial landscape developed. However, although it is difficult not to envisage some earlier experimental phases, this does not need to imply that such experiments took place in a Roman colonial context. It is certain that the Greeks experimented with land division systems from the Archaic period and thereafter and that they had developed an orthogonal land division system before the Early Hellenistic period. The Romans must have known about these systems and could have copied them when they began to divide their territory into equal parts marked by physical boundaries.

There is no evidence to suggest that this necessarily happened for the first time in a colonial context. Land division systems can be created for a wide variety of other purposes, like the selling of land, the registration of property or land reforms. In fact, the first documented case of a Roman land division system in the *agrimensores* is connected with the selling of land and probably dates to the middle of the third century. Although not too much weight should be attached to the late and undeniably controversial texts of the *agrimensores*, it makes sense to connect the development of a more rigid means of demarcating property claims with the new practice of selling conquered land on a large scale. It would not have been surprising that the new owners demanded a firmer title to this land than had been the case in the previous periods when elites acquired land by exercising the right of *occupatio*. Perhaps it is no coincidence that the first attestations to the existence of *formae* (cadastral maps which were used to record property rights) also appear late, namely during the Second Punic War, when more land was being sold.

At some point in time, this sophisticated system of recording property was also adopted in colonial contexts. It is very difficult to pin down this development chronologically. On the basis of the literary sources, it could be argued that the practice of drawing cadastral maps began only after the Second Punic War; the period in which Livy begins reporting about the sizes of allotments distributed. While this postulation does carry some weight, various scholars have recognized traces of orthogonal land division systems on aerial photographs and cadastral maps of former colonial territories which they date in the Pre-Hannibalic period. Nevertheless, the arguments which have been used to date these supposedly early grids are far from conclusive and a Hannibalic or Post-Hannibalic date of construction cannot be ruled out.

Intriguingly, it is likely that survey archaeology has also contributed to the view that scattered forms of settlement dominated in colonial landscapes. The maps which pin-point the locations of recognized sites show dense landscapes of small dots, giving the impression of flourishing peasant landscapes. However, critical examination shows that these maps are often misleading. The large-scale and the coarse chronological resolution of these maps conceal the fact that in large areas no traces of Pre-Hannibalic settlements have been identified. Moreover, the equal size dots give the false impression of a landscape settled in an egalitarian manner; a view which fits neatly with the peasant landscape model. In reality, these dots on the maps often stand for artefact scatters of very different

sizes and substance. It is more than likely that the decision to visualize the archaeological data in this uniform way was steered strongly by aprioristic expectations of Roman rural settlement organization.

If these fixed ideas are set aside, the possibility of seeing very different settlement arrangements opens up. On closer inspection, it turns out that the survey data actually suggest that during the first century of their existence, most colonial territories were settled in irregular fashion, either in clusters or aligned alongside specific elements in the landscape such as roads, waterways and specific geo-morphological zones. Although it is impossible to exclude the possibility that these patterns have been biased by visibility problems or inadequate sampling strategies, this theoretical problem should not be used as a justification for clinging on to the old paradigm of early colonial settlement arrangement, especially since there is evidence for the existence of nucleated forms of settlement in the archaeological and epigraphic record of colonial territories.

Considering the potentially hostile environment into which the colonial settlers ventured, it seems sensible that people would have preferred to live together in nucleated settlements instead of residing in isolated farmsteads which would have been more difficult to defend. From a logistical point of view, it is also easy to find reasons for the clustering of settlements. Especially if the role of a centralized government in creating complex infrastructures is downplayed, it would have been expected that farmers initially settled in those areas with easy access to primary resources like water or roads and only after a while, when the situation stabilized, would they have expanded to the more marginal areas.

Perhaps it is no coincidence that before the Punic Wars dispersed settlement patterns have only been identified in colonies which were founded in the former territories of centralized communities in central Latium and south Sabinum. These areas were already characterized by more scattered settlement models before they were colonized by the Romans. For the most part, these were a legacy from the Archaic period, which was also a time of rapid urbanization processes and the appearance of large-scale land improvement systems, like the famous *cuniculi* (drainage or water supply tunnels cut through solid rock). The Roman colonists entering these landscapes could have made use of the existing infrastructure and have perpetuated or adapted a pre-existing pattern of dispersed settlement. Yet, in some of these landscapes Roman colonization seems to have resulted in a contraction of settlement. Amongst other reasons, this apparent anomaly can be explained by a psychological consideration, for instance socio-political tensions.

More scattered forms of settlement have also been recorded for the colonies which were founded after the middle of the third century. It is tempting to connect this phenomenon with the theory outlined above that in this period Rome developed more rigid land division policies. However, not only is the amount of data available for this period inadequate to support such a hypothesis, it is also certain that most of these colonial territories were settled neither as regularly or as densely as might have been expected on the basis of the information obtained about allotments sizes and land division grids. No doubt, some of these riddles are attributable to site recovery problems, but also in

these landscapes evidence of hamlets and ribbon settlements exists, suggesting that a completely scattered settlement pattern did not develop in most of the later colonial territories either.

The missing sites problem

An assessment of site retrieval rates of field surveys depends heavily on what populations are expected to have lived in the territories investigated. This is a controversial issue since such information depends on late textual sources. The only source which repeatedly gives information about the sizes of colonial populations is Livy. His information suggests that colonial territories were densely populated, often with overall population densities of over ten colonial families per square kilometre. Since only a small percentage of these families would have fitted inside the colonial town centres, Livy's figures imply that the vast majority of colonists must have had a rural base.

Essentially, the credibility of Livy's figures depends entirely on the reliability of the annalistic sources in general; a hotly debated issue on which no consensus can be expected. Nevertheless, it might be worth considering whether Livy's recordings are plausible and if they are contested by other information. In fact, various scholars have argued that the scale of the colonial enterprises suggested by Livy is too high for mid-Republican Roman society, because it is unlikely that Rome could have sustained such a drain on its manpower. As a solution to this problem they suggest that either Livy's figures are anachronistic inventions or that large numbers of non-Romans must have signed up for colonization. Looking askance at the former possibility, sceptics point out the existence of other sources which suggest very different colonial population sizes. Although two of the recorded figures are atypical, they do not suggest considerably smaller colonial populations and hardly attest to the existence of an alternative and possibly more trustworthy historiographic tradition. In contrast to these claims, my analysis has shown that by and large Livy's population figures are compatible with the demographic information provided by the other sources, for example Polybius' manpower figures.

An alternative explanation suggests that Livy's numbers are correct, but that he misunderstood who precisely participated in these colonial adventures. His emphasis on the Roman proletarian background of colonists is considered anachronistic and might be explained by the fact that he wanted to place the Roman colonization programme in his larger narrative which deals with the struggle between the orders. It is believed that, in reality, substantial numbers of allies and indigenous people were included in these figures. Although it is indeed likely that some natives or allies participated in Roman colonial programmes, the analysis I give in Chapter 2 shows that the theory that this *must* have been what happened on a large scale is incorrect. The migration rates implied by Livy's figures are always substantially below likely Roman population growth rates (mostly achieved by enfranchisement), which suggest that Rome could easily compensate for this loss of manpower; the more so, since Latin colonists continued to send troops to Rome in times of war. Moreover, the fact that there is a strong positive correlation between the number of migratory movements and population growth rates strengthens the credibility of Livy's statistics.

If Livy's figures are accepted as roughly correct, this implies that the archaeological field surveys are seriously wide of the mark. On average, recovered site densities are well under 1 per square kilometre for the early colonial period. In order for these site densities to approach the text-based expectancy, it has to be assumed that they all represent large nucleated settlements inhabited by more than ten families. It is likely that, as a result of conceptual biases, evidence of the existence of larger settlements has not been noted or has been explained away as the consequence of disruption caused by ploughing or later occupational phases. At the same time, on the basis of the published information on site sizes, it seems very unlikely that this happened on a scale large enough to bridge the gap with the text-based demographic expectancy and hence it has to be concluded that large numbers of settlements have not been recorded during the various field reconnaissance projects.

Conventional explanations for this problem have all focused on problems to do with the recognizability of early colonial sites which are considered to have been composed of very simple structures which generated very vague and easy-to-miss surface scatters. Although undoubtedly visibility problems contributed significantly to the missing site problem, this is only half of the story. Implicitly, these studies have accepted a scattered model of colonial settlement organization which turns out to be anachronistic on closer inspection.

The acceptance of a more nucleated model of colonial settlement organization offers new insights into the factors which caused the missing of sites. Besides taphonomic processes and consumption patterns, a third factor can now be added: location preference, which probably contributed to the low recovery rates of early colonial sites. Nucleated settlements are often located in the non-arable zones of a territory, frequently on hilltops which often to this day remain untouched by the plough. These places have also attracted settlement in later moments in history. Since regular field surveys depend on arable areas for good results, there is a possibility that a substantial number of these settlements have not been noticed.

Geo-political arrangements

Both the archaeological and literary records attest clearly to the presence of indigenous communities living in colonial areas. These indications require a serious consideration of the juridical position and geographical setting of these people. Two scenarios are usually defended with regard to their juridical position: either the indigenous people were granted the right to live in the colonial territory as foreigners (*incolae*), without political rights but subject to colonial law and taxation, or, as Bradley has recently proposed, they were incorporated into the colony as full citizens. Both scenarios, although they have fundamentally different views on the nature of colonist-native relationships, share the conviction that the indigenous people living on the sequestered land fell under the jurisdiction of the colony.

Indeed there is some literary and epigraphic evidence for the existence of such arrangements but there are also strong indications that a very different course of action was often adopted. Quite a

few references in the sources suggest that the people living in the conquered territory retained some form of political autonomy and were not either fully integrated into or subjected to the colonial community. Such an arrangement of two communities living on one territory is also called a double-community scenario. According to a definition used by Kahrstedt, double communities are those which share a single territory, but are socially and politically independent of each other. In such a scenario, membership of a community depends on socio-cultural or ethnic criteria, rather than on territorial considerations (hence, a non-territorial definition of community). In this view, a colony was not primarily a territorial state, but above all was a socio-political community of migrants which had the right to exploit a piece of land conquered by a Roman general. The same applies to the indigenous people who continued to live within the boundaries of that territory. They were not part of the colony, but formed a (semi-) independent socio-political community which could remain living on land claimed by Rome.

Since the 1950s, this model has been subjected to fierce opposition and until very recently it was rejected by most scholars. The most important reason for dismissing this scenario is that it is incompatible with the view that a colony is a territorial sovereign state. Various scholars argue that a *colonia* must be a sovereign territorial unit because Roman law uses different terms to describe socio-political communities without territorial jurisdiction. New legal studies have recently countered these arguments as they have demonstrated that there is ample evidence, above all in the Gromatic sources, of the existence of separate indigenous and colonial communities living in a single territory. The inference which can be drawn from this evidence is that Roman law did not necessarily oppose a legal construction in which two politically separate communities, one consisting of colonists and another of natives, shared a single territory.

Although according to these insights the basis for membership of a colonial community might not have been defined principally by territorial criteria, this does not exclude the possibility that colonial migrants lived in close proximity to each other and claimed a unified part of the territory as their own. In the Post-Hannibalic period especially, when the sources begin to report about the handing out of equally sized allotments and there is more convincing evidence of the existence of rigid land division systems, there is a strong possibility that a colony acquired a clear territorial dimension. On the other hand, there is little evidence to support the view that such an arrangement was standard practice in the Pre-Punic War period. On the contrary, the archaeological record is more easily reconciled with a model which presupposes more patchy socio-political and ethnic landscapes in which no closed topographical boundaries which indicate either clear-cut colonial or native living spaces can be drawn. Newly founded sites are often found in-between settlements which originated in the Pre-Roman period. Even though settlement continuity is a very dangerous indicator for establishing ethnic or socio-political backgrounds, it is tempting to connect these patterns with the suggested non-territorial definition of colonial and native communities.

In an absolute sense a double-community scenario does not conflict with the other models of colonist-native relationships suggested. It is still possible to assume that some people of the conquered indigenous community enrolled in the colony. If they did so, the grounds for their decision may have been socio-politically prompted, for example, by pro-Roman attitudes or socio-economic criteria and not by the fact that they lived on conquered land.

Whatever the beginnings might have been, it is likely that as time passed the ties and interaction between colonists and natives living closely together intensified, which might have blurred the original socio-political and juridical divisions between them. In some cases this could have resulted in a decision to unite these communities formally by an act of *contributio*, as is recorded to have happened in the case of Taras-Neptunia in the late second or early first century. The reorganization of Italy into new municipal districts after the Social War especially offered a good opportunity to unite scattered colonial and peregrine communities which had lived close by each other politically for many generations. Perhaps it was only at this moment that the patchwork of territorially defined municipal communities which is so familiar to us now was created.

Appendices

1. The results of traditional, site-orientated survey projects⁷⁵⁶

Table 14: Survey of surveys in colonies founded before the Latin War.

Colony	Description of survey
Fidenae	The territory was investigated systematically in the context of the larger <i>Latium Vetus</i> Project. In an area of roughly 15 sq. km., an average density of more than 3 settlement sites per sq. km. was recorded. ⁷⁵⁷ On the grounds of their size, a substantial number of these sites are interpreted as representing villages or clusters of more than one farm. ⁷⁵⁸
Signia	In the territory of Signia, an archaeological inventory compiled in the mid-1980s covering an area of roughly 160 sq. km. mapped a total of 155 sites (density of almost 1 site per sq. km.). ⁷⁵⁹ The publication does not give any precise information about the chronology of these sites and states only that most were occupied in the Republican period.
Sutrium	Around the colony of Sutrium, approximately 84 sq. kms were surveyed under the direction of Duncan. ⁷⁶⁰ Only one site has been identified dating to the 5 th -4 th centuries, and 32 Republican sites (density of 0.4 sites per sq. km.). ⁷⁶¹ Similar low densities are recorded in a topographical study published in 1980 in the <i>Forma Italiae</i> series, which concentrated mostly on the south-east part of the territory. According to this study, the rural settlements recognized all date to the late Republican and Imperial periods. ⁷⁶²

⁷⁵⁶ This section describes the results from site-orientated surveys conducted in Roman colonial territories in Italy after the Second World War. Survey projects which have used more intensive off-site sampling strategies are described in the next section. For several reasons, here no further categorization based on survey intensity has been attempted, although it is very likely that there are significant differences in the quality of the various survey projects described (on this see section 2.4.2.) Information on used survey strategies is often only very sparsely published, if at all. Especially in the Italian survey school, it is not yet common practice to describe sampling strategies. Nevertheless, as Terrenato 1996 has argued most of these projects used comparable survey strategies to those of Anglo-Saxon site-orientated surveys (this conclusion is supported by the fact that retrieved site densities of Italian and Anglo-Saxon projects are often, but not always, rather similar). Even when information on the adopted survey method is provided (see section 2.4.1. for a brief description of this), this is more often than not done in a very generic manner and it is mostly impossible to figure out basic information such as what areas precisely have been actually field walked.

⁷⁵⁷ Quilici and Quilici Gigli 1986, tav. CLXXXI. The research project was launched in the mid-1970s by the Department of Etruscan-Italian Archaeology of the Italian Research Foundation (CNR). Most of the southern half of the *Ager Fidenates* is urbanized nowadays and could not be surveyed systematically. At the time of the survey, the northern part of the territory was used for agricultural purposes and was ideally suited to a field survey (Quilici and Quilici Gigli 1986, 260 and tav. CLXXXIV).

⁷⁵⁸ Most of the recognized sites were already occupied in the pre-colonial period and had generally been founded during the sixth century. A possible explanation of this unexpected settlement stability the researchers claim is that most of the systematically surveyed area was not part of the land confiscated by Rome and settled by colonists. They locate the confiscated land in the southern part of the Fidenate territory, which is closest to Rome. However, because of modern building activity, most of this area was not surveyed systematically. Therefore it is impossible to monitor the impact the Roman conquest and colonization had on this part of the territory (Quilici and Quilici Gigli 1986, 388-393, tav. CLXXXI).

⁷⁵⁹ Cassieri and Luttazzi 1985. See also Attema and Van Leusen 2004, 166-167.

⁷⁶⁰ Duncan 1958; Potter 1979.

⁷⁶¹ Potter 1979, 96 Table 6. Fig 7a in Duncan 1958, 94 shows 38 dots.

⁷⁶² Morselli 1980. Only a few tombs could be dated before this period. Following a geological study (Hutchinson 1970), Morselli argues that most of this area was covered by forest until at least the mid-third century.

Colony	Description of survey
Nepet	The territory of Nepet was surveyed as part of the <i>Ager Faliscus</i> Survey, which covered an area of circa 165 sq. km.⁷⁶³ A total of 104 5th to 4th century sites has been identified (density 0.6) and 142 sites with black gloss pottery dating mostly to the third century (density 0.85).⁷⁶⁴ In the 1990s circa 40 sq. km. located to the south-east of Nepet were resurveyed by the <i>Gruppo Archeologico Romano</i>.⁷⁶⁵ The survey revealed that the flourishing pre-Roman landscape underwent a dramatic drop in site numbers immediately following the conquest and colonization of the area. Only 16 sites are datable to this period, all of which are located at some distance from the <i>oppidum</i> of Nepet (density 0.4). In the third century, site numbers rose to 33 (density 0.8). In total, 106 Republican sites have been identified (density 2.65). Yet another survey was conducted in the territory immediately surrounding the town of Nepet as part of the Tiber Valley Project. Between 1999 and 2001, a total of 2.02 sq. km. was intensively surveyed.⁷⁶⁶ In this area, 16 sites had been discovered by the previous surveys. Eleven of those could be relocated. The final survey results are not yet published, but preliminary studies suggest that the territory was intensively occupied in the Roman Republican period.⁷⁶⁷

⁷⁶³ Frederiksen and Ward-Perkins 1957.

⁷⁶⁴ Potter 1979, 90, Table 3 and page 97, Fig. 27. A study of the black gloss pottery from the *Ager Faliscus* by Morel demonstrated that 75% dated to the third century. This conclusion is confirmed by a recent re-study of all the South Etruria Survey suggests that most black gloss pottery collected during the surveys belongs to the third, rather than to the second, century (Di Giuseppe 2008, with references).

⁷⁶⁵ Camilli, et al. 1995.

⁷⁶⁶ Di Gennaro, et al. 2002; Di Gennaro, et al. 2008.

⁷⁶⁷ Di Gennaro, et al. 2008, 882-883.

Table 15: Survey of surveys in Latin colonies.⁷⁶⁸

Colony	Description survey
Cales	In the territory of the first Latin colony which was founded after the Latin War, two sample areas were investigated in 1980. ⁷⁶⁹ In the first, which is located circa 2 km. to the north-east of the <i>oppidum</i> , in the foothills of the Monte Maggiore, a total of 17 Republican settlement sites were identified (density 2.8), of which 8 produced pottery of the 3 rd century (density 1.33). ⁷⁷⁰ The area was already settled in the pre-Roman period with 5 recorded sites; four of which continued into the colonial period. ⁷⁷¹ Very different results were obtained in the second sample area, located in the fertile Campanian Plain at circa 2 km. to the south-west of Cales. Here only one Republican settlement and two tombs have been identified (density of 0.16). On average, the site density in the <i>Ager Calenus</i> during the late fourth and third centuries is 0.75 sites per sq. km. and 1.5 for all Republican settlement sites.
Fregellae	The territory of Fregellae was investigated (in the period between 1978 and 1998) by three separate survey projects. A team of Canadians under the direction of the late Edith Wightman surveyed the eastern part of the territory as part of the larger Lower Liri Valley Survey Project. ⁷⁷² A first sample area of circa 13 sq. km. was located between the Melfa and Liri Rivers, a little more than 1 km. to the south-east of the town walls of Fregellae. In this area, only four Republican settlements were identified (density 0.3); two of which contained pottery dating to the late 4th/ 3rd centuries (density of 0.15); both are large settlements. ⁷⁷³ No evidence for Late Iron Age settlement was discovered here. Farther upstream, at a distance of circa 6 km. to the north-east of Fregellae, another sample area was investigated by the Canadian team covering part of the mountainous territory of the modern village of Rocca d'Arce. In the circa 6.5 investigated sq. km., 15 Republican settlements have been identified (density of 2.3); 7 of which contained pottery dating to the early colonial period (density of 1.1). ⁷⁷⁴ The western part of the territory was covered by a British survey team. ⁷⁷⁵ In an area of 9 investigated sq. km., a total of 16 Republican sites were

⁷⁶⁸ There are topographical studies for some other Latin sites in this period which are not included in this review because it was impossible to work out the relevant site densities. In the territory of Hatria (circa 600 kms²) a topographical study has recorded a total of 50 Roman rural settlements and 6 larger settlements, which are interpreted as villages (Menozzi and Martella 1998, 41-44). Topographical and intensive field survey has been conducted in the territory of Paestum. The intensive survey has concentrated only on the Archaic period (Skele 2002), with further references. For Firmum see Pasquinucci and Menchelli 2004; Pasquinucci, et al. 2007. On the territory of Placentia see Dall'Aglio and Marchetti 1991, on that of Bononia: Scagliarini 1991; De Maria 1991. In the territory of Vibo Valentia, topographical research has been conducted (Iannelli and Givigliano 1989). A total of 84 sites was mapped.

⁷⁶⁹ Compatangelo 1985.

⁷⁷⁰ Compatangelo 1985, tav. I. According to the main text (page vii and 7), the sample areas measured circa 20 sq. km. On the maps, however, they are considerable smaller (c. 6 sq. km.). Since the scale of the maps seems to be correct, I have used these sample areas for my calculations. The dating of the sites is based on the catalogue (page 19-65).

⁷⁷¹ E.g. sites 4/5; 7; 13/14; 16. Site No. 4/5 is large and is possibly best interpreted as a small village.

⁷⁷² Hayes and Martini 1994.

⁷⁷³ Hayes and Martini 1994, fig. 22. See also the site catalogue. The total area covered by Sample Area 1 (Zone 1) is larger than the 13 sq. km. used here. A substantial part is located to the east of the Melfa River, which was probably not part of the territory of Fregellae. The two sites are: No. 22 which covered an area of 0.5 hectares and is interpreted as a villa, and Site 28 which is classified as a major site. Since both sites have a long occupation history, it is impossible to establish how large they were during the period of colonization.

⁷⁷⁴ Zone 2 in Hayes and Martini 1994, fig. 27. Most of these sites were founded in the Pre-Colonial period and are not easy connected to the arrival of colonists in the area. This part of the territory is particularly rich of Iron Age settlements, besides a number of isolated farms a major fortified Iron Age settlement has been identified on Rocca d'Arce Hill (see Monti in Coarelli and Monti 1998, 105-92; the site is interpreted as the *arx fregellana*, i.e. the Volscian town called Fregellae). Moreover, just across the Melfa River, hence probably outside the territory of Fregellae, a very large village settlement with a chronology between the Iron Age and the Imperial periods was discovered (Site 113/119/120, Hayes and Martini 1994, fig 31). It seems likely that the rather dense Iron Age settlement network recorded in this area is somehow connected to these larger settlement realities.

⁷⁷⁵ Crawford, et al. 1986.

	identified (density 1.8). ⁷⁷⁶ The central part of the <i>Ager Fregellanus</i> was investigated fairly extensively in the 1990s by an Italian scholar. ⁷⁷⁷ In the circa 100 sq. km. investigated (of which large areas were urbanized or forested and not suitable to field survey), a total of 22 sites was mapped which contained black gloss pottery (density 0.22). ⁷⁷⁸ Most of these sites, which were located almost exclusively on the west bank of the Liri River, appear to be new foundations. A particularly high settlement density was recorded in the <i>località</i> Moricino, situated 1 km. to the north-west of Ceprano. Here in an area of circa 1.5 sq. km. a settlement density of c. 4 Republican sites per sq. km. was recorded.
Luceria	Part of the territory of Luceria was surveyed systematically in the late 1990s in the context of the <i>Valle del Celone</i> Survey Project of the University of Foggia, which set out to investigate the landscape of the excavated Late Roman settlement of San Giusto. ⁷⁷⁹ In total 35 sq. km. was covered, in which a total of 42 Republican settlement sites were identified (density 1.2). ⁷⁸⁰ Of these sites, 39 are interpreted as farms, three as villages. Half of the sites contained material dating to the late fourth/ early third century (density of 0.6). For the other sites the earliest ceramics dated to the 2 nd century. ⁷⁸¹
Suessa Aurunca	The territory, which was surveyed mostly singled-handed by Paul Arthur in the late 1970s and early 1980s as part of the Northern Campania Survey Project, also covered part of the <i>Ager Falernus</i> and the territory of the maritime colony of Sinuessa (see below). ⁷⁸² In the area of circa 30 sq. km. between Sessa Aurunca and the modern town of Piedimonte in the south and Cascano in the east, a total of 20 Republican settlement sites have been identified (density 0.7), of which two are interpreted as villages. ⁷⁸³ Only four of those sites contained ceramics dating to the late fourth/ early third century (density 0.1). ⁷⁸⁴
Interamna Lirenas	The territory surrounding Interamna Lirenas was investigated in the context of the Lower Liri Valley Survey Project (see above). In an area of slightly more than 40 sq. km. of investigated terrain, a total of 47 Republican settlements sites has been identified (density 1.1), of which 13 contained pottery dating to the early colonial period (density 0.3). The vast majority of these sites appears to have been a new foundation. With the exception of one restricted area to the south of the Liri River near the modern village of Sant'Apollinare, very few traces of Iron Age settlement have been identified in the research area.

⁷⁷⁶ Crawford, et al. 1986, 44, fig. 2 and 51. The total sample area measured 17 sq. km., but only 9 sq. km. could actually be walked; the centre of the research area is covered by woodlands. The sites are dated only generically to the Republican period, on the basis of the presence of black gloss pottery. A study of these ceramics by J-P Morel suggests they belong to the third century or to the first three-quarters of the second century and not later (hence after the destruction of the colony). Regrettably, it is still uncertain how many were occupied in the Early Colonial period. Especially since according to the literary tradition, Fregellae witnessed a period of demographic growth during the first half of the second century, it is possible that part of the discovered sites belong to this period. The survey team found no evidence of Pre-Roman occupation of the area, despite the fact that they had a Bronze Age/ Iron Age pottery expert in the team (Crawford, et al. 1986, 43).

⁷⁷⁷ Monti in Coarelli and Monti 1998, 88. The research was conducted with the aim of creating an archaeological map of territory of the modern town of Ceprano (which includes the ancient cities of Fregellae and Fabrateria Nova).

⁷⁷⁸ Coarelli and Monti 1998, tav. XIII. The area partly overlaps with the Canadian and British surveys.

⁷⁷⁹ Volpe, et al. 2004. Initially, only a small elongated transect was surveyed near the Torrente Vulgare where a large pipeline was to be constructed. Soon afterwards, it was decided to survey two additional and larger sample areas: the first covering the territory around the San Giusto site, the second that between the Celone River and Monte Croce located c. 5 km. to the south-west of the San Giusto sample area.

⁷⁸⁰ Volpe, et al. 2004, 196 and 211 fig. 10. For size of sample areas page 190.

⁷⁸¹ Only two Iron Age sites were recognized and a total of 25 Bronze Age sites were mapped.

⁷⁸² Arthur 1991.

⁷⁸³ See Arthur 1991, fig. 22 and the site catalogue.

⁷⁸⁴ All except one of these 3rd century sites were founded in the Pre-Roman period. Village Site C5 appears to be a new foundation.

Colony	Description of survey
Venusia	The territory of Venusia was covered by two survey projects, both published in the <i>Forma Italiae</i> series. The immediate surroundings of the colonial town centre were investigated by Marchi and Sabbatini. ⁷⁸⁵ In an area of slightly more than 130 sq. km., a total of 223 Republican sites were mapped (density 1.7), of which 34 contained pottery datable to the early colonial period (density 0.3). ⁷⁸⁶ The second <i>Forma Italiae</i> volume covers the territory to the north of the River Matinella between the modern towns of Lavello and Montemilone. ⁷⁸⁷ In the circa 100 sq. km. investigated, a total of 103 Republican sites has been identified (density 1) of which only 5 contained pottery datable to the early colonial period (density < 0.1). ⁷⁸⁸
Cosa	A first large-scale survey of the entire territory of Cosa (roughly 500 sq. km.) was initiated in 1974 by the Wesleyan University under the direction of Stephen Dyson. ⁷⁸⁹ In this area, of which nowadays roughly 50 % is cultivated, a meagre 63 Republican sites (density 0.1) were mapped, of which only 2 produced pottery datable to the early colonial period. A couple of years later, the territory was subjected to another large-scale, more intensive survey by a joint Italian and British team. ⁷⁹⁰ The ambitious Albegna Survey Project, which also covered the territories of the later colonies of Saturnia and Heba, resurveyed almost one-third of the total colonial territory (roughly 160 sq. km.), concentrating on the fertile valle d'Oro area, located immediately to the north of the colonial town centre. The project mapped a total of 38 settlement sites which contained pottery datable to the early colonial period, of which 24 are located in the survey transects (density 0.15). ⁷⁹¹ Occupation in this period is considered probable for another 34 sites (density then rises to 0.4). ⁷⁹² If all Republican settlements are included, the density rises to 1.8 per sq. km. Few traces of pre-Roman settlement have been identified in the Valle d'Oro area. Etruscan settlement within the boundaries of the <i>Ager Cosanus</i> was confined mostly to the peninsula of Orbetello, where a large nucleated settlement has been identified, and in the more mountainous areas in the north of the territory. ⁷⁹³

⁷⁸⁵ Marchi and Sabbatini 1996.

⁷⁸⁶ According to the researchers, 95% of all Pre-Roman sites ceased to exist at the beginning of the third century Marchi and Sabbatini 1996, 19 fig. 4 and 114. This situation is most clearly visible in the Mass. Casalini area, where in Pre-Roman times a very dense cluster of settlements existed, which all disappeared after the foundation of Venosa, leaving the area almost empty of habitation. The pattern of settlement transformed radically from being a rather clustered site configuration into a dispersed site distribution pattern. The newly founded sites are in general very small, $\frac{2}{3}$ is smaller than 200m² and 1/3 of the total sample is even smaller than 100m²; an obvious decrease in size in comparison with the settlements of the Pre-Roman period (Marchi and Sabbatini 1996, 102 fig. 62). Only very few larger sites have been identified (see fig. 62). A final significant change regards location preference. While most Pre-Colonial sites are located on hill slopes; most settlements of the Republican period are located in the plains (Marchi and Sabbatini 1996, 116 fig. 81).

⁷⁸⁷ Sabbatini 2001.

⁷⁸⁸ If the second century is included, the number rises to 88 (Sabbatini 2001, 58 note 29). Of the 21 Pre-Colonial sites, 33% continued into the Colonial period (Sabbatini 2001, 58 fig. 22). However, most sites which contained ceramics datable to the third century were founded in the Pre-Colonial period. The new sites are generally much smaller than those founded in the Daunian period (Sabbatini 2001, 59 fig. 24). But, in contrast with what was recorded to the south of the Matinella River, the majority of these sites are located on the slopes and tops of hills (Sabbatini 2001, 60 fig. 25).

⁷⁸⁹ Dyson 1978.

⁷⁹⁰ Final results in Carandini, et al. 2002, with further references.

⁷⁹¹ Carandini, et al. 2002, 107 fig. 40 and page 115 tav. 14. Slightly different numbers in Cambi 1999.

⁷⁹² The period of maximum settlement numbers is the second century with 75 sites (Witcher 2006, fig. 3).

⁷⁹³ Carandini, et al. 2002, 84-85 tav. 8; Perkins 1999, fig. 10.3.

Colony	Description of survey
Brundisium	In the territory of Brundisium, a large systematic survey was conducted. Circa 65 sq. km. to the west of the colonial town centre was investigated under the direction of Manacorda of the University of Siena. ⁷⁹⁴ In this area, 37 sites dating to the early colonial period (250-150) were recognized (density 0.6). This settlement intensifies notably in the late Republican period (150-50) to 92 sites of which 5 are villages (density 1.4). ⁷⁹⁵
Cremona	A topographical study of the eastern part of the territory of Cremona mapped a total of 127 Roman settlement sites in an area of c. 400 sq. km. between the Oglio and Po Rivers (density of 0.3). ⁷⁹⁶ Most sites date to the late Republican/ early Imperial period and it is postulated that this part of the territory was only reclaimed in the late Republican period.
Thurii-Copia	Surveys have so far concentrated only on the northern and central part of the territory. In the 1960s, under the direction of Lorenzo Quilici, a total of 800 sites were mapped in an area of circa 500 sq. km. Almost no sites were identified in the coastal plain (measuring c. 150 sq. km.), which can be explained by the fact that an alluvial deposit of 8 to 6 metres covers the Classical archaeological strata. In the c. 350 sq. km. of inland, a total of circa 400 Hellenistic-Roman sites was identified (density 1.1). ⁷⁹⁷

⁷⁹⁴ For final publication see Aprosio 2008.

⁷⁹⁵ See Aprosio 2008, 113.

⁷⁹⁶ Vullo 1995, fig. 7.

⁷⁹⁷ Quilici 1967, 150 fig. 3. More than 460 Hellenistic-Roman sites are listed on the map; about 60 are located in the coastal plain.

Table 16: Survey of surveys in citizen colonies.⁷⁹⁸

Colony	Description survey
Antium	The lands directly surrounding the town of Antium have been investigated rather unsystematically and only 2 certain and 4 possible sites, which can be dated to the period 350-250, have been recognized in a radius of 3 km. around the town. ⁷⁹⁹
Minturnae	The territory of Minturnae was investigated in the late 1980s by three Italian students for their doctoral theses. ⁸⁰⁰ In total, 11 sites have been recognized in the territory to the west of Minturnae alongside the via Appia (density of circa 1 site per sq. km.), of which 5 are interpreted as Republican settlements (density 0.45). To the north-east of Minturnae, another 22 sites have been recognized, resulting in a density of circa 0.6 sites per sq. km., of which 13 produced Republican pottery (density 0.4).
Sinuessa	Sinuessa was investigated as part of the Northern Campania Survey (see above). In the coastal area between the Roman colony and the modern town of Mondragone (c. 10 sq. km.), a dense network of settlement was identified: 27 sites produced Republican ceramics (density 2.7), but only three of these could be dated certainly to the third century (density 0.3). No pre-Roman material has been identified on the vast majority of these sites. ⁸⁰¹
Pyrgi and Alsium	The lands surrounding Pyrgi and Alsium were investigated by an Italian team in the late 1980s and early 1990s as part of the larger <i>Ager Caeretanus</i> Survey Project (with a total sample area of 400 sq. km.). The south-eastern part of this territory was investigated first and covered part of the territory of the later citizen colony of Alsium, founded in 247. In the 92.5 sq. km. which was covered, a total of 797 sites was identified (density of 8.6 sites per sq. km.). Of these, 54 settlement sites (density 0.58) produced pottery dating to the 5 th and 4 th century (of which three large ones) and 124 dating to the 3 rd and 2 nd century (density 1.34). Furthermore, the survey data revealed a strong continuity of Etruscan sites into the Roman period. ⁸⁰²
Volturnum	In Volturnum, an area of circa 10 sq. km. located to the south of the Volturno River was investigated. ⁸⁰³ A total of 14 Republican settlement sites was mapped (density of 1.4), most of which did not produce ceramics antedating the second century. Only two sites contained pottery dating to the late fourth and third century and only one larger village is dated to the late Archaic period.

⁷⁹⁸ For some other citizen colonies in this period, there are topographical studies which are not included in this review because it was impossible to work out the relevant site densities. For example, a substantial part of the territory of Ostia was surveyed in the early 1990s as part of the Malafede Survey (Arnoldus-Huyzendveld, et al. 1995), but so far publications have focused on the Pre-Historic period. The territory of the Roman colony of Castrum Novum has also been investigated in the context of the Forma Italiae series (Gianfrotta 1972). This early study was carried out fairly unsystematically and the chronological resolution is very coarse (e.g. Etruscan or Roman).

⁷⁹⁹ The territory was investigated by Liboni. See Attema, et al. 2009, 20-21 for a discussion of this research and page 68, fig. 8.1 for the sites dating to the early colonial period.

⁸⁰⁰ In Coarelli 1989.

⁸⁰¹ Arthur 1991. In the area between Sinuessa and the modern village of Piedimonte, Republican settlement is more diffuse (density of circa 1 Republican site per sq. km.); only one third-century site was identified (density c. 0.1).

⁸⁰² Enei 1992; Enei 1995; Enei 2001.

⁸⁰³ Crimaco 1991.

Colony	Description survey
Tempsa	Research in the territory of Tempsa has revealed almost no traces of late Republican rural settlement. The recent <i>Forma Italiae</i> volume, which covers a substantial part of coastal area of western Calabria, records a total of 21 sites with black gloss pottery (density 0.3), in the circa 70 sq. km. of territory between Oliva and Savato Rivers (the probable territory of the colony of Tempsa). ⁸⁰⁴ Only 1 of these sites could be dated with certainty to the Colonial period (200-50) and another 3 were probably occupied in this period (density of less than 0.01). The vast majority of sites seems to have been abandoned before or soon after the Second Punic War.
Croton	The territory of Croton was surveyed in the 1980s by a combined Italian-American research team under the direction of Joseph Carter of the University of Texas. ⁸⁰⁵ Special attention was paid to what is known as the Capo-Colonna area; a peninsula with terminates in the well-known sanctuary of Hera. Recent studies have convincingly argued that the Roman colony was founded on this location. ⁸⁰⁶ During four survey campaigns (1983 to 1986), a total of 30 sq. km. was covered and c. 460 sites were identified (density 15.3). More precise chronological information is available only for the 1985 survey campaign, during which an area of 4 sq. km. was investigated and 64 sites were recognized (density 16). ⁸⁰⁷ Only 6 farm sites and one larger site, which could have been an administrative centre of the sanctuary, were dated to the Classical Greek period (5 th and 4 th centuries), while a total of 14 late Republican settlement sites was identified (density 3.5; all new foundations). In the rest of the territory of Croton, site dynamics reveal the opposite trend: high site numbers in the Classical-Early Hellenistic period and a steep drop in the Republican period. ⁸⁰⁸ This flourishing late Republican landscape is possibly connected with the foundation of the colony. The relatively low settlement numbers in the Classical period is tentatively connected by Carter to a passage of Livy (24.3), who mentions grazing lands for the animals of Hera in the area.

⁸⁰⁴ La Torre 1999.

⁸⁰⁵ Carter 1990. For full bibliography see: http://www.utexas.edu/research/ica/publications/crot_biblio.htm.

⁸⁰⁶ On this see Chapter 5.

⁸⁰⁷ Carter 1986.

⁸⁰⁸ Carter and D'Annibale 1993.

Colony	Description survey
Saturnia	The territory of Saturnia was investigated as part of the large-scale Albegna Valley Survey Project (see above). Around the Colonial <i>oppidum</i> , an area of circa 15 sq. km. was systematically surveyed, in which 35 settlement sites dating to the period 200-50 (density 2.2) were mapped. ⁸⁰⁹ The vast majority of these sites appear as new foundations. ⁸¹⁰ In the Poggio Semproniano area, located 5 km. to the north of the Colonial town centre, settlement density was significantly lower (almost 1 site per sq. km.). Moreover, a stronger continuity was recorded here between the third and second centuries: almost 50 % of the sites continued into the Colonial period. ⁸¹¹ A slightly higher settlement density was recorded in the southern part of the <i>Ager Saturninus</i> . In the sample transect located circa 2 km. to the south of the colonial town centre a settlement density of 1.3 was recorded. ⁸¹² Almost all these sites appear to be new foundations. ⁸¹³
Mutina	In the north-eastern part of the territory of Mutina, several topographical studies have been conducted in the last few decades. The results of these different initiatives have recently been brought together in a single publication. ⁸¹⁴ In an area of circa 300 sq. km., a total of 312 Roman sites was mapped, of which 270 are interpreted as settlements (density of 0.9). ⁸¹⁵ For 197 of these sites, diagnostics were collected which enabled a more precise definition of the period of occupation. Eighty-eight sites contained pottery dating to the 2 nd and early 1st centuries (density of 0.3 sites per sq. km.). ⁸¹⁶ It is uncertain how many of these were new foundations, since the Pre-Roman material collected has not been published. Higher settlement densities were recorded in the immediate surroundings of the city of Mutina. In the archaeological map of the modern communality of Modena (182 sq. km.), which is available on the Internet, a total of 328 extra urban Roman settlements have been identified (density 1.8), of those 189 were founded in the 2 nd century (density 1); 60 sites could only generically be dated to the Roman period. In total 92 Iron Age settlement sites were recognized. ⁸¹⁷
Luna	Luna was surveyed in the late 1970s. During two campaigns, an area of 18 sq. km. was investigated to the north-west of the city of Luni and the Magra River. ⁸¹⁸ A total of 15 Roman sites was mapped (density 0.8), mostly located in the lower hill zone, of which seven contained black gloss pottery (density 0.4). ⁸¹⁹ Most of these sites had scatters measuring between 1,000 and 1,500 m ² , two, however, were larger (4000-5000 m ²) and are interpreted as larger settlements. No pottery scatters dating to the pre-colonial period were recognized.

⁸⁰⁹ Based on Carandini, et al. 2002, 170 tav. 25. Twenty-two of these are interpreted as small houses (casa 1), 7 as larger houses (casa 2), 4 villas and one village. Based on the table in Carandini, et al. 2002, 140, which lists all sites mapped in the *Ager Saturninus*, almost half of the sites represented on the map has the status of possible site (See also Attolini, et al. 1991, fig 4, which also records 3 village sites in the area, and Cambi 1999).

⁸¹⁰ Only 4 settlement sites have been identified in the area which produced pottery from the 3rd century; with the exception of one, all of those sites continue into the Colonial period.

⁸¹¹ Compare tav. 14 and 25 in Carandini, et al. 2002. Most of these sites originated in the Etruscan period (see Carandini, et al. 2002, fig. 40).

⁸¹² Carandini, et al. 2002, 169, tav. 24.

⁸¹³ In this area almost no traces of Pre-Colonial settlement were recorded (Carandini, et al. 2002, tav. 14 and fig. 40). Only two tombs/ houses possibly predate the Colonial period.

⁸¹⁴ Corti 2004 (with references).

⁸¹⁵ Corti 2004, 154. The area covered is located between the Secchia and the Tresinaro Rivers and corresponds to the territories of the moderns communalities of Carpi, Soliera, Campogalliano and part of the territory of Modena (that of the frazione Ganacetto) and San Martino in Rio.

⁸¹⁶ Based on site catalogue and tables of collected materials (Corti 2004, 293-306).

⁸¹⁷ <http://urbanistica.comune.modena.it/prg/qc/archeo/1d3-SchedaturaSitiArcheo.pdf>. (last accessed: 1-8-2010)

⁸¹⁸ Delano Smith, et al. 1986.

⁸¹⁹ Delano Smith, et al. 1986, 101 Table 3. At one site (9) black gloss pottery was not identified during the survey, but was retrieved by excavation.

Colony	Description survey
Heba	The settlement density in territory of Heba was investigated as part of the Albegna Survey Project (see above). In the lands immediately surrounding the colony, on average 1.8 settlement sites per sq. km. were mapped.⁸²⁰ Two kilometres to the west, the density decreases to slightly more than 1 site per sq. km.,⁸²¹ to rise again to 1.4 site per sq. km. in the coastal area of the former Etruscan city of Doganella.⁸²² For all, transect settlement density in the Colonial period is significantly higher than that recorded for the 3rd century. Especially in the immediate surroundings of the colonial town centre, very few traces of third-century occupation were encountered. The coastal areas were inhabited more intensively in the Pre-Colonial period; most of these sites continue into the second century.

⁸²⁰ Carandini, et al. 2002, 166, tav. 23. The survey area is circa 15 sq. km..

⁸²¹ Carandini, et al. 2002, 166, tav. 22. The survey area of circa 15 sq. km..

⁸²² Carandini, et al. 2002, 166, tav. 22. The survey area of circa 22 sq. km..

Table 17: Survey of surveys in areas of viritane settlement.

Viritane area	Description survey
Ager Veientanus	Roughly 300 sq. km. of the probable territory was investigated as part of the ambitious South Etruria Survey Project. ⁸²³ A first synthetic study of the results was published by Potter in 1979. He listed a total of 127 sites for the 5 th to 4 th centuries and 242 sites for the 3 rd to 1 st centuries, ⁸²⁴ resulting in densities of respectively 0.42 and 0.81 sites per sq. km.. Particularly striking was the fact that no evidence for a disruption in the settlement organization was noticed following the period of the Roman conquest of this territory. The transition from the Etruscan to the Roman period was instead characterized by a gradual expansion of settlement and intensification of land use. ⁸²⁵ Recent restudy of the ceramics collected during the South Etruria surveys, however, suggest a rather different picture. ⁸²⁶ On the whole, it appears that site numbers in the period 480-350 are 42 % lower than suggested by Potter. Therefore, the period is now characterized by a steep drop in site numbers (65 % of sites was abandoned in this period), only to rise again in the period 350-250. On the basis of these studies, settlement density must be adjusted to c. 0.25 for the period 480-350 and 0.7 sites per sq. km. for the period 350-250. After the Second Punic War, settlement density drops again to roughly 0.25 sites, ⁸²⁷ only to rise again steeply in the period 150 to 30 when Republican settlement density reached its maximum, just exceeding 0.8 sites per sq. km.
Ager Falernus	Four surveys have investigated different parts of the <i>Ager Falernus</i> . The northern part was investigated by French researchers in the 1970s. In an area of circa 80 sq. km., a total of 20 sites with black gloss pottery has been indentified (density of 0.25). ⁸²⁸ Not much later, the area was re-investigated by an English research team under the direction of Paul Arthur. This project covered an extensive territory of circa 150 sq. km., centering on and around the Monte Massicio. Circa 60 sq. km. of this sample area is located to the east of the Monte Massicio and can be considered part of the ancient <i>Ager Falernus</i> . ⁸²⁹ In this area only 4 settlement sites dating to the Colonial period were mapped (density of less than 0.1), of which two are interpreted as villages. The maximum number of Republican settlements is recorded for the late Republican period (200-50), a total of 60 sites are datable to this period (density of 1 site per sq. km.). The southern part of the <i>Ager Falernus</i> was covered by two Italian surveys. The first, which concentrated on the citizen colony of Volturnum (see above), mapped 12 settlement in the coastal area to the north of the Volturno (c. 30 sq. km.) which is considered part of the <i>Ager Falernus</i> (density 0.4), among which one large village site (No. 5). ⁸³⁰ Most of

⁸²³ The South Etruria Project covered almost 1,000 sq. km., which included besides the *Ager Veientanus*, the ancient *Ager Capenas*, *Ager Faliscus* and *Ager Sutrinus*. (see in general on this project Potter 1979, 1-9). The *Ager Veientanus* was defined as the territory between the Monti Sabatini, the *via Flaminia* and the *via Cassia*, which is circa 300 sq. km. (Potter 1979, 4 map 1). It is uncertain how much of this territory was actually investigated by field walkers and how precisely the sites were defined (the methodology section in Potter 1979, 10-14 is not very clear in this regard).

⁸²⁴ Potter 1979, 90 Tables 3 and 96, Table 4.

⁸²⁵ Only a fraction of the old sites was abandoned and 131 sites were founded in this period.

⁸²⁶ The restudy is done in the context of the Tiber Valley Project (see in general on this project Patterson and Millett 1998; Patterson, et al. 2000). For a preliminary re-evaluation of the settlement evolution see Patterson, et al. 2004 and Di Giuseppe 2008.

⁸²⁷ That only a minority of the black gloss pottery collected during the South Etruria Survey dated to the second century had already been concluded by Liverani 1984. A restudy of a selection (600) of the total amount of black gloss shards collected demonstrated that 80 % dated to the late-4th to early-3rd century and only minority dated to the second century. The study of Di Giuseppe 2008 more or less confirms this view (although less marked).

⁸²⁸ Vallat 1983; Vallat 1987. For a review of this research and that of Arthur (cf. below) see Fentress 1993.

⁸²⁹ Arthur 1991.

⁸³⁰ Crimaco 1991, (esp. Tav. XXVI and XXVIII).

	these site date to the 2nd century and later. Only three sites (including the village) produced late-fourth- and early-third-century material (density of 0.1 sites per sq. km.). Farther inland, an Italian research team from the Universities of Naples and Bologna has recently carried out a survey, as part of the <i>Carta Archeologica e ricerche in Campania</i>, of a considerable tract of land between the Volturno River and the Agnere Channel.⁸³¹ In an area of circa 25 sq. km., the researchers located a total of 18 Republican sites (density 0.7). Only three sites produced material dating to the Colonial period (density 0.1); the vast majority of these sites date to the second century and later.
Lower Sabine area	In the Lower Sabine territory, several systematic surveys have been conducted. The territory of Eretum was investigated as part of the South Etruria Survey Project.⁸³² The total area covered measures c. 40 sq. km., in which 55 Republican sites have been discovered (density 1.4), the majority of which date the period 350-250 according to a recent re-study of the material.⁸³³ Twenty-seven Archaic sites were mapped, most of which continued after the Roman conquest of the area. The territory of Cures Sabini was investigated in the context of the <i>Forma Italiae</i> series.⁸³⁴ In total, 167 sites have been mapped in an area measuring little less than 100 sq. km.. The vast majority of these sites is located in the lower lying areas, in the territory immediately surrounding the <i>oppidum</i> of Cures (area of about 45 sq. km.). Here a centuriation grid has also been identified (10x10 <i>actus</i>). The density of Republican settlement in this area reaches 3.7 sites per sq. km.; for the total area the density is 1.7 sites per sq. km.. Only a few of these sites (in total 25) could be dated convincingly to the third century, the period of the conquest and division of the territory. Settlement density in the centuriated area for this period drops to 0.56; for the whole survey area to 0.26 per sq. km.. Part of this territory was re-surveyed intensively in 2000 (for results see Table 18 below). The territory to the north of Cures is covered by two partly overlapping surveys, respectively the Farfa Survey, covering a fairly mountainous area, and the Galantina Project, which concentrated on the lower areas around a branch of the River Tiber. In the Farfa Survey, conducted in the mid-1980s, a sample area of 35 sq. km. was investigated, of which 11.4 was actually walked.⁸³⁵ In total, 39 Republican sites have been identified (density 3.4), of which only 8 could be securely dated to the 3rd century and 6 were probably occupied in this period (density 0.4 settlements per sq. km.).⁸³⁶ In the Galantina region, an area of c. 40 sq. km. was investigated, within which 10 sites are dated certainly to the period 350 to 250 (density 0.25) and another 10 yielded material which could be dated only generically to the Republican period (total density of Republican sites 0.6).⁸³⁷ In both research areas, most Sabine settlements continued to exist after the conquest of the area.⁸³⁸ Finally, a topographical investigation of the territory of Forum Novum has recently been published in the <i>Forma Italiae</i> series.⁸³⁹ In an area of circa 35 sq. km., a total of roughly 9 settlement sites has been identified with clear traces of occupation in the Archaic period (density 0.26) and 38 sites (1.1) produced Roman pottery (most of which produced black gloss potter datable to the Republican period).⁸⁴⁰ Most sites which were occupied in the pre-Roman period show continuity after the Roman conquest of the area. The transition between the Sabine and Roman periods does not appear to have been very disruptive for the existing settlement organization and is characterized above all by a further intensification of rural settlement.⁸⁴¹

⁸³¹ Guandalini 2004.

⁸³² Ogilvie 1965.

⁸³³ See fig. 6 and fig. 11 of Di Giuseppe 2008.

⁸³⁴ Muzzioli 1980.

⁸³⁵ Leggio and Moreland 1986; Moreland 1987 and Moreland 2008.

⁸³⁶ Moreland 2008, 861 fig. 2.

⁸³⁷ Agneni, et al. 2005; Barchesi, et al. 2008.

⁸³⁸ For Farfa see Leggio and Moreland 1986, 336 fig. 2. For Galantina, compare fig. 7 and 13 in Agneni, et al. 2005.

⁸³⁹ Verga 2006. See also Verga 2002 for an earlier synthetic study of the survey results.

⁸⁴⁰ Verga 2002, fig. 1 and 2.

⁸⁴¹ Verga 2002, 83.

2. The results of small-scale, intensive surveys⁸⁴²

Table 18: Survey of small-scale intensive surveys in colonial territories.

Colony	Description survey
Signia	In the circa 3.3 sq. km. investigated territory, a total of 47 sites were recognized (density of 14 sites per sq. km.). ⁸⁴³ Of these, 27 contained more than 5 pieces of pottery dating to the Late/ Post Archaic period which corresponds roughly to the period of the Roman colonization recorded by the sources (density c. 8 sites per investigated sq. km.). Ten sites had already been occupied in the Proto-Historical period and 17 were new establishments. Most of these new sites are located in the eastern part of the territory. According to the authors, the recorded settlement intensification is not necessarily connected to the installment of the Roman colony. The beginning of the process can be traced back to the Pre-Roman period and is more likely to have been connected to a wider, regional process of urbanization and rural occupation which characterized several areas in central-west Italy during the sixth century (colonized and non-colonized).
Antium and Satricum	Part of the territories of Antium and Satricum was covered by the Astura and Nettuno Survey Projects, which concentrated above all on two sample areas: the <i>Quarto delle Cinfonare</i> area, which was probably part of the territory of Satricum, and the <i>Campana</i> area, which was most probably part of the settlement of Antium; the total area covered measures 8.16 sq. km.. ⁸⁴⁴ A total of 9 rural sites produced pottery belonging to the period 500 to 350, ⁸⁴⁵ corresponding to the early colonial period (density 1.1 sites per sq. km.), and another 35 sites were possibly occupied in this period (if indeed so, settlement density rises to 5.4). The transition from the Archaic to the Early Roman periods is marked by a sharp decline in site numbers: 80% in the case of certain sites and circa 35 % if possible sites are included. Almost all of the sites, which could be dated between 500 and 350, were already occupied in the previous period. This sharp decline in site numbers could be a reflection of the difficult socio-political situation in the region in this period of persistent warfare. On the other hand, the researchers emphasize that the pottery of this period is difficult to recognize. The recorded drop therefore could partially be explained as the result of dating difficulties. This explanation is supported by the fact that the settlement density in the following period (350 to 250) climbed back to 2.5 certain sites per sq. km. and to 10 if possible sites are included.
Norba	The sample area investigated in the territory of Norba measures 2.95 sq. km. and is located in the foothills alongside the <i>via Pedemontana</i> . ⁸⁴⁶ For the early colonial phase (500-350) a settlement density of 6.8 sites per sq. km. was recorded. Moreover, the survey demonstrated that there was a strong continuity between the Archaic and Roman colonial phases. Only six or seven sites out of 41 Archaic sites were abandoned and four new sites were established.

⁸⁴² See Section 2.4.2. for a discussion of the sampling strategies used in most small scale off-site surveys.

⁸⁴³ Attema and Van Leusen 2004, 166-173 esp. fig. 7 and 22.

⁸⁴⁴ Attema et al. 2007/2008 and Attema et al 2009. This territory was previously investigated by Italian scholars who mapped circa 280 sites in an area of roughly 100 sq. km. (2.8 sites per square km.). See de Haas 2009 (in Attema et al. 2009) for an overview of these previous studies. Some of these previously recognized sites were revisited and restudied by the Groningen research team.

⁸⁴⁵ Based on Attema et al. 2009, 65 fig 7.2

⁸⁴⁶ See Van Leusen, et al. 2003-2004; Attema and Van Leusen 2004, 173-180. In 1995, a more traditional site survey was conducted in this region (King 1995, Van Leusen, et al. 2003-2004, 306 for methodology, field walkers were spaced at intervals of 3 to 4 metres.). In an area of just over 1 sq. km., 8 small sites have been identified by the presence of early types of coarse wares which have been dated in the Early Colonial period (500-350). At first, no Early Colonial (Post-Archaic) material was identified and sites were dated to the Republican period. A restudy of the sites has resulted in the recognition of material dating to the Early Colonial phase (500-350) on 8 sites. Most of these sites cluster together in the south-eastern part of the research area, close by a fortified hill-top site and were already occupied in the Pre-Colonial period.

Colony	Description survey
Setia	About 0.83 sq. km. of terrain in the territory of Setia has been investigated intensively. ⁸⁴⁷ For the early colonial phase (500-350), a settlement density of around 20 sites per sq. km. was mapped. Very few sites of the Pre-Colonial period were discovered and most sites dating between 500-350 appear as new foundations.
Ager Pomptinus	A total of 18 settlement sites which contained Republican material was identified in a small- scale intensive survey in the <i>Ager Pomptinus</i> . The investigated sample area measured 1.8 sq. km. (density of 10 sites per sq. km.). Of these, 6 were certainly occupied between 350 and 200 (density 3.3 per sq. km.) and another 12 are possibly datable to this period. ⁸⁴⁸
Reate	Between the late 1980s and early 1990s, a vast area to the north of Reate, covering the eastern part of the Rosea Plain, was systematically surveyed by an English survey team. ⁸⁴⁹ In total 22 sq. km. were investigated, of which roughly half in the plain and the rest in mountainous area farther to the east. A total of 51 Republican settlement sites was discovered, almost all of which were located in the lower lying areas (density of 2.3). Settlement density in the plain exceeds 6 sites per sq. km.. The mountainous area on the other hand was virtually void of settlement in the Republican period. In the Pre-Roman period, settlement densities were slightly lower: 1.7 overall and 3.8 in the lower lying areas. Most Sabine sites continued after the Roman conquest (in total 32 continued, only 8 were abandoned). Hence, the period did not witness any dramatic disruption, but is characterized instead by settlement intensification.
Cures	In the territory of Cures, a small-scale intensive survey was conducted in 2000. This survey covered an area that had been previously investigated by Muzzioli (cf. above). ⁸⁵⁰ The sample area measured roughly 4 sq. km., of which little less than 50% was accessible (1.7 sq. km. was actually walked). A total of 14 mid-Republican sites were mapped (although only 6 sites had been recognized by Muzzioli in the same area). The settlement density, at least in this restricted area, was therefore considerably higher (c. 8.24 sites per sq. km.) than what was suggested by the study of Muzzioli (c. 3.5 in this area). This also applies to the Archaic period. In the <i>Forma Italiae</i> , only one Archaic site was mapped in the sample area, while during the restudy a total of 9 sites was recognized dating to this period. Nor in the territory of Cures is any major disruption of the settlement pattern recorded after the conquest of the area. Almost all Sabine sites continued in the Roman period, but many new sites are founded. ⁸⁵¹
Thurii-Copia	In 2000, the Groningen University team re-surveyed part of the territory of Thurii which had been investigated earlier by Quilici (cf. above). ⁸⁵² Two different survey strategies were employed: 125 hectares were surveyed using a high-intensity, off-site survey strategy and 315 hectares were investigated using a more conventional field based site survey. Nineteen sites were identified by the intensive survey (density of 15.2). The density of sites which presented evidence for Hellenistic/ Republican occupation was just below 5 per sq. km.. In the extensive survey, 12 sites were mapped (density of 3.8), of which only two contained material which could be clearly dated to the colonial period.

⁸⁴⁷ Attema and Van Leusen 2004, Van Leusen and Attema 2004 173-180. For site densities: Attema and Van Leusen 2004, 188 fig. 22.

⁸⁴⁸ See De Haas 2008.

⁸⁴⁹ Coccia and Mattingly 1992a and Coccia and Mattingly 1995.

⁸⁵⁰ See Di Giuseppe, et al. 2002, fig. 4.

⁸⁵¹ Di Giuseppe 2008, 444 fig. 6.

⁸⁵² Van Leusen and Attema 2001-2002, 412-413.

Colony	Description survey
Potentia	The territory of Potentia was investigated in the context of the Potenza Valley Survey Project. ⁸⁵³ The coastal transect around the colony of Potentia covered 34 sq. km. of terrain, of which only 3.9 sq. km. were investigated by an intensive off-site survey strategy. Here a total of 30 Roman settlement sites was identified, of which 12 contained black gloss pottery datable to the second century (density 3).

⁸⁵³ Percossi, et al. 2006.

3. The compatibility between the archaeological record and the text-based expectancy using a basic site=colonist equation

This appendix explores the compatibility between the archaeological record and the text-based expectancy if the conventional model of colonial settlement organization is adopted. For this comparison I use a basic site=colonist equation which complies with the conventional understanding of colonial landscapes. This text explains more in detail the conclusion reached in Chapter 2.4 (visualized in Graphs 13-16) that if we would accept a truly scattered model of Roman colonial settlement arrangement, the recovery rates of traditional site orientated field surveys are mostly below 10% and 30% if all Republican sites are included. For a deconstruction of the conventional view on Roman colonial settlement organization see Chapters 3 and 4.

1. *Priscae coloniae*

The territories of only four 'old Latin colonies' (Fidenae, Signia, Sutrium and Nepes) have been investigated by large scale surveys whose results can be contrasted with the text-based expectancy.⁸⁵⁴ However, for none of these territories are the colonial population figures transmitted by Livy.⁸⁵⁵ I deal with this practical problem by using the average of Livy's population figures (2,167 colonial families) as a reference. Given the probable population size of Rome at that early stage in its history, the likelihood that the population number used reflects actual number of migrants from Rome is remote (although not impossible). Nevertheless, since the sources for this period make very clear that a considerable part of the indigenous population continued to live in the colonial territories of this period and that some of the other Latin communities possibly also sent colonists to these newly conquered areas, the estimate which results from Livy figures, although based on very fragile evidence, might not be that far off.⁸⁵⁶ Whatever the case might be, the calculations result in fairly plausible amounts of arable land per family (c. 3 hectares; densities of 15 to 20 families per sq. km).⁸⁵⁷ Since many of these colonies have fairly large fortified *oppida* (around 40 hectares), in theory a substantial proportion (50-30%) could have had an urban base, resulting in expected rural densities of roughly ten families per sq. km. This is not the case for either Nepes and Sutrium which have *oppida* of around 10 hectares. These are unlikely to have housed more than 10 to 15 per cent of the hypothetical population. Consequently, expected rural population densities are higher (> 12 per sq. km).

Such densities have not been documented in large-scale surveys (cf. Appendix 1). Only in the case of Fidenae is the historical expectancy approached. The compatibility with the text-based

⁸⁵⁴ The very old topographical studies conducted before World War II and those investigated intensively using an off-site survey strategy (which are discussed in Chapter 2.4) are not included in this section.

⁸⁵⁵ In the case of Fidenae, colonial population figures are transmitted for the first colonization attempt of Romulus by two other sources (Dionysius and Plutarch). Obviously, information about this mythical time is best taken with a grain of salt, especially since both sources suggest totally different orders of size (300 and 2,500). On this see Chapter 2.2.

⁸⁵⁶ On this see Chapter 2.2.

⁸⁵⁷ Graph 4.

expectancy in a dot=colonist equation is almost 30 per cent. Taking into account the fact that several large sites (interpreted as villages) have been found and dated to the early colonial period,⁸⁵⁸ the compatibility rate might be adjusted upwards. Fidenae is an exception (on this also Chapter 2.4) and all other survey projects under discussion here have achieved much lower site recovery rates (see Graph 11). For the other colonies, the compatibility rates (based on an expected density of 12 colonial families per sq. km expectancy) for sites dated in the early colonial period are in the range of <1 to 5 per cent. Since the diagnostic ceramics for this period are not easily recognizable, there is a good chance that evidence of occupation in the period has not been noted, especially in the earlier survey projects.⁸⁵⁹ However, even if all Republican sites are included in the calculations, compatibility percentages remain well under 10 per cent for Signia and Sutrium and just over 20 per cent for Nepet.

2. Latin colonies

Approximately one-third of all the territories of Latin colonies have been investigated by archaeological field surveys. The oldest colonies especially have attracted considerable scholarly attention (more than half of all colonies founded in the late fourth century have been surveyed). This is also the period for which Livy provides detailed demographic information. In this period standard colonial populations consisted of 2,500, 4,000 or 6,000 colonists, which, with the exception of Luceria, result in densities of between ten to twenty colonists per sq. km. Since urbanization percentages for this period are unlikely to have exceeded 30 per cent, it can be expected that, taken over the whole, at least seven to eight colonial families populated one sq. km of the colonial territory. A review of the surveys conducted in late fourth century Latin colonies clearly demonstrates that only a fraction of the expected number of rural settlements has been detected (See Appendix 1). For sites which could be dated in the early colonial period (late fourth and third centuries) densities are below 1 per sq. km., which results in compatibility rates which are generally between 1 to 10 per cent (with an expectancy of 8 farms). The diagnostic pottery for this period is easily recognizable (for example, early black gloss forms). Nevertheless, even if it is assumed as some scholars have done (on this see Chapter 2.4), that first generation dwellings are easily overlooked because colonists lacked the means to acquire fine wares and that all Republican sites are included in the calculations, compatibility percentages remain well below 25 per cent, in most cases below 10 per cent.

A possible exception is Luceria. There three large villages have been detected (scatters which measured in-between 5-11 hectares) in an area of 35 sq. km. (density of 0.09) surrounded by several isolated farmsteads (density 0.6 per sq. km.). For this landscape to match the text-based expectancy it has to be presumed that each village housed about eighty families on average. Although this number

⁸⁵⁸ E.g. two large new sites were founded which are interpreted as Roman strongholds used to control the area (Quilici and Quilici Gigli 1986, 392. Also catalogue sites 114 and 245)

⁸⁵⁹ Van Leusen 2002, Chapter 9.

of people is perhaps on the high side, it is not impossible considering the large size of these settlements.

Low compatibility percentages result also for the colonies which were founded between Pyrrhus and the Second Punic War. All survey projects of these territories have retrieved low site densities (ranging between 0.1 and 0.6 for early colonial sites), which, if it is assumed that farm densities were comparable to those in the late fourth century, result in compatibility percentages of 1 to 8 per cent. This assumption rises to a maximum of little more than 20 per cent at best if all Republican sites are included.⁸⁶⁰

The literary information regarding the number of colonists sent out to the different Latin colonies after the Hannibalic War is complete and a direct comparison between the text-based information and the survey record can therefore be made. But, regrettably, little systematic field surveying has been undertaken in these colonies. Only for the territory of Thurii-Copia can such an attempt be made. If it is assumed that all sites which were recognized in Quilci's survey were also occupied in the early colonial period, the compatibility rate is about 30 per cent. The rub is that not only is such an assumption very unlikely, the text-based expectancy for this territory is very probably too low (below 4 colonist per sq. km, with an estimated 20% urban population) and it is highly likely that a substantial indigenous population also lived in this territory.⁸⁶¹ If the same population density expectancy as that used for the Latin colonies which were founded in the late fourth century is applied, the compatibility percentage drops below 15 per cent.

3. *Coloniae civium Romanorum*

The information in the sources about the number of colonists sent out to the so-called maritime colonies (300) is of little use for the current compatibility analysis, since a large proportion of these reported numbers of colonists can be fitted into the colonial *oppida*, and it is clear that a large number of non-colonial inhabitants lived in the hinterlands of these colonies. Nevertheless, for the sake of completeness, the results of the surveys conducted in these territories will be discussed but no attempt will be made to estimate compatibility percentages. Site densities in these colonies are comparable to those mapped in Latin colonies (for Republican sites on average 1.5 per sq. km –excluding Tempesa and Croton which yielded very low (<0.1) and very high densities of (3.5) respectively).

Establishing compatibility rates for the later citizen colonies of the so-called agrarian type is also problematic. Livy suggests that the standard number of settlers sent out to these colonies was

⁸⁶⁰ Although Livy's books which deal with this period in Roman history have been lost, it is generally assumed that the colonies of the third century had comparable populations to those founded earlier and after the Second Punic War (on this Chapter 2.). Modern studies suggest that the sizes of the colonial territories increased in this period which results in lower colonial population densities of around 10 colonists per sq. km (Graph 3). These estimates, as I have argued in the previous section, probably overestimate the sizes of colonial territories, and there is a good chance that the living spaces of non-colonial, indigenous populations have been included in these reconstructions. In any case, the sizes of colonial *oppida* in this period are generally considerably smaller and it is unlikely that more than 20% of the total population had an urban base. Probable rural population densities, therefore, are comparable to those estimated for the older Latin colonies.

⁸⁶¹ On this see Chapters 2 and 5.

2,000. Since these colonies are generally expected to have had very large territories and the maximum urbanization percentage would have been almost 50 per cent, the expected colonial population densities are very low (under 4 sites per sq. km.). Therefore, it is very likely that non-colonial people resided in the territories generally attributed to the citizen colonies. In fact, on the basis of the information in the sources about the small sizes of allotments distributed (all below 10 *iugera*), very densely populated landscapes should be expected.

On average, the surveys conducted in these territories have mapped densities of around one late Republican site per sq. km., which result in an average compatibility percentage of almost 70 per cent. However, if it is assumed that a substantial non-colonial population also lived in these large territories and overall population densities would have been similar to those in Latin colonies, the compatibility percentage drops significantly (to 12.5% if the density of 8 colonists per sq. km. calculated for Latin colonies is adopted).

4. Agri viritim divisi

As has come to light in Chapter 2.2.6, the available literary information suggests that the territories which were divided in virital land distribution schemes were almost as densely populated as the contemporary Latin colonies but, since these areas often lack an urban centre, the expected rural population number is 20-30 per cent higher (c. 10-15 per sq. km.). Such densities have not been attained in large-scale surveys of these landscapes. In general, site densities for the early colonial period are below 0.3 per sq. km and, if all Republican sites are included, the average density is c. one site per sq. km. With a conservative text-based estimate of ten colonial families per sq. km. this produces compatibility rates of respectively <3 and 10 per cent.

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NEDERLANDSE SAMENVATTING

Volgens de schriftelijke bronnen stuurde Rome tijdens de Mid-Republikeinse periode (334-133 v. Chr.) een indrukwekkend aantal kolonisten naar nieuw veroverd gebied. Lange tijd werden deze vroege Romeinse kolonies voorgesteld als monumentale en zeer geordende landschappen die vooral gekenmerkt werden door de aanwezigheid van versterkte steden en door de dichtbevolkte en gelijkmatig verdeelde rurale gebieden (zie Afbeelding 4 voor een impressie van één dergelijk landschap). Volgens veel geleerden bewijzen de complexe ingrepen die nodig waren om de indrukwekkende steden te bouwen en om de efficiënte economische exploitatie van het achterland te bewerkstelligen dat de Romeinen niet alleen in politiek-militair opzicht oppermachtig waren, maar dat Rome ook in cultureel en sociaaleconomisch opzicht superieur was. In dit boek wordt deze traditionele visie kritisch onderzocht en betoog ik dat zij anachronistisch is en grondig moet worden herzien. Daarbij heb ik mij voornamelijk geconcentreerd op de organisatie van het rurale territorium en op de impact die de kolonisatie gehad heeft op de inheemse bevolking.

Een nieuwe visie op de ruimtelijke organisatie van koloniale territoria

Volgens de traditionele opvatting werden Romeinse koloniale gebieden al vanaf de 4^{de} eeuw v. Chr. verdeeld onder kolonisten in percelen van gelijke grootte. Deze egalitaire vorm van landverdeling werd bewerkstelligd door het aanleggen van een geometrisch landverdelingsysteem dat bestond uit een netwerk van elkaar kruisende straten en kanalen. Omdat volgens deze voorstelling op elk afgebakend kavel een boerderij werd gebouwd, resulteerde dit rigide verkavelingsstelsel in een nederzettingslandschap van geïsoleerde boerderijen die op gelijke afstand van elkaar stonden. Dit strak geordende en egalitaire koloniale territorium contrasteert sterk met de inheemse gebieden die juist vaak voorgesteld worden als meer organisch gegroeide landschappen waarin bewoning vooral geconcentreerd was in dorpen en gehuchten.

Belangrijke aanwijzingen die hebben geleid tot deze opvatting van Romeinse kolonies zijn de sporen van landverdelingsystemen die zijn geïdentificeerd op luchtfoto's van koloniale gebieden en de resten van alleenstaande Romeinse boerderijen die zijn aangetroffen tijdens archeologische veldverkenningen. Op het eerste gezicht lijken deze gegevens de conventionele opvatting van de koloniale territoriale organisatie inderdaad te ondersteunen. Dit boek laat echter zien dat deze aanwijzingen veel zwakker zijn dan meestal wordt aangenomen. Zo kunnen er bijvoorbeeld grote vraagtekens geplaatst worden bij de theorie dat de landverdelingslijnen die op luchtfoto's zijn aangetroffen gedateerd kunnen worden in de vroege koloniale periode. Met name de argumenten die zijn gebruikt om deze grids te dateren zijn bijzonder problematisch. Gangbare theorie beweert dat een speciaal soort verkavelingsstelsel bestaande uit enkel evenwijdige lijnen, typisch is voor vroege Romeinse

kolonisatielandschappen (voor voorbeelden zie Afbeeldingen 10 tot 14). Wanneer op luchtfoto's sporen van dit type verkaveling worden aangetroffen, wordt vaak zonder verdere onderbouwing aangenomen dat ze dateren uit de periode van de stichting van de kolonie. Deze stelling is echter niet langer houdbaar. Niet alleen hebben recente studies overtuigend aangetoond dat dergelijke systemen ook in latere periodes aangelegd werden, maar mijn eigen onderzoek naar de afstanden tussen de landverdelingslijnen toont aan dat in veel gevallen niet een Romeinse lengtemaat is gebruikt, maar dat het een inheemse of Griekse maateenheid betreft. Het feit dat er sprake lijkt te zijn van een geografisch patroon in de gebruikte maateenheden (zie Afbeelding 15) suggereert ook dat deze systemen zijn gemaakt door lokale of regionale gemeenschappen en niet door een centrale Romeinse overheid.

Ook archeologisch onderzoek leek aanvankelijk het conventionele model van Romeinse kolonisatie te bevestigen. Tijdens de vele archeologische veldverkenningen in koloniale territoria zijn grote aantallen Romeinse nederzettingen gekarteerd. De kaarten waarop deze vondstlocaties zijn gemarkeerd met stippen van gelijke grootte, suggereren op het eerste gezicht dat koloniale landschappen volgebouwd waren met alleenstaande boerderijen (zie bijvoorbeeld Afbeelding 6). Echter, ook in dit geval blijkt na kritisch onderzoek dat deze gegevens vaak misleidend zijn. De grote schaal en de grove chronologische resolutie van de archeologische verspreidingskaarten verbergen veelvuldig het feit dat er in werkelijkheid in grote delen van het onderzochte gebied geen sporen van vroeg-koloniale nederzettingen zijn geïdentificeerd. Bovendien geven de stippen van gelijke grootte de misleidende indruk van een egalitair georganiseerd landschap. In werkelijkheid staan deze stippen op de verspreidingskaarten vaak voor artefactassemblages van zeer verschillende grootte en inhoud.

Als we de vastgeroeste ideeën over Romeinse kolonisatie loslaten ontstaat de mogelijkheid om andere patronen in het nederzettingslandschap te herkennen. Bij nader inzien blijkt bijvoorbeeld dat de rurale nederzettingen die dateren uit de vroege koloniale periode in de meeste gevallen op een onregelmatige wijze over het landschap waren verspreid; hetzij in clusters of als lintbebouwing langs wegen, waterwegen en specifieke geomorfologische zones (voor enkele voorbeelden zie Afbeeldingen 20 en 21). Gezien de mogelijk vijandige omgeving waarin kolonisten zich waagden, lijkt het ook verstandig dat men in nederzettingsclusters ging wonen in plaats van in geïsoleerde boerderijen die moeilijk te verdedigen zijn. Ook vanuit een logistiek oogpunt is clustering van nederzettingen gemakkelijk verklaarbaar. Het is te verwachten dat boeren zich in eerste instantie vestigden in die gebieden met gemakkelijke toegang tot goede gronden, water of wegen en zich pas na een tijdje, als de situatie gestabiliseerd was, gingen vestigen in de meer marginale gebieden.

Deze nieuwe interpretatie van de territoriale organisatie van Romeinse kolonies heeft ook belangrijke gevolgen voor gangbare theorieën over Romeins imperialisme en acculturatieprocessen. Een geclusterd koloniaal nederzettingsmodel onderscheidt zich namelijk niet langer van de organisatie van

veel inheemse landschappen. De traditionele opvatting dat kolonies op cultureel en sociaaleconomisch gebied meer ontwikkeld waren dan de oorspronkelijke, lokale gemeenschappen wordt hierdoor ondermijnd, evenals de theorie dat de kolonies een belangrijke rol hebben gehad in het verspreiden van navolgenswaardige 'superieure' Romeinse cultuur.

Het lot van de inheemse bewoners

De stichting van een kolonie in een overwonnen gebied moet een enorme impact hebben gehad op de oorspronkelijke bewoners ervan. Met name in de literaire bronnen lezen we regelmatig over het verdrijven of zelfs het geheel uitroeien van inheemse bevolkingsgroepen om plaats te maken voor de kolonisten. Niettemin zijn er ook duidelijke aanwijzingen dat deze harde lijn niet altijd gevolgd werd en dat aanzienlijke aantallen oorspronkelijke bewoners op hun land bleven wonen. Met betrekking tot de juridische positie van deze mensen worden er doorgaans twee scenario's voorgesteld. Ofwel men gaat ervan uit dat de inheemse bevolking het recht kreeg om in het koloniale grondgebied te verblijven met de status van 'buitenlander', dus zonder politieke rechten, maar wel onderworpen aan koloniale wetgeving en belastingen; of ze werden opgenomen in de kolonie als volwaardige burgers. Hoewel beide scenario's fundamenteel verschillende visies hebben op de aard van de politieke en juridische relaties tussen kolonisten en oorspronkelijke bewoners, delen ze wel de overtuiging dat de inheemse bevolkingsgroepen onder de jurisdictie van de kolonie vielen.

Hoewel er enig literair en epigrafisch bewijs is voor het bestaan van dergelijke regelingen, betoog ik in dit boek dat er meestal voor een geheel andere oplossing werd gekozen. Een aanzienlijk aantal teksten in de literaire en epigrafische bronnen suggereert namelijk dat de mensen in de veroverde gebieden een bepaalde mate van politieke autonomie behielden en dat ze niet volledig werden geïntegreerd in of onderworpen aan de koloniale gemeenschap. Een dergelijke regeling van twee politieke gemeenschappen die een territorium delen wordt ook wel een dubbelgemeenschap genoemd. In een dergelijk scenario wordt het lidmaatschap van een gemeenschap niet bepaald door territoriale overwegingen, maar hangt af van sociaal-culturele of etnische criteria (dus een niet-territoriale afbakening van de gemeenschap). Deze geopolitieke organisatie impliceert dus ook dat een Romeinse kolonie, anders dan vaak gedacht, geen territoriale staat, maar primair een sociaal-politieke gemeenschap van migranten was, die het recht had een stuk land te exploiteren dat veroverd was door een Romeinse generaal. Hetzelfde geldt echter ook voor de inheemse mensen die bleven wonen binnen de grenzen van dat gebied. Ze maakten geen deel uit van de kolonie, maar vormden een (semi-) onafhankelijke sociaal-politieke gemeenschap die mocht blijven wonen op het land dat Rome als haar bezit beschouwde.

Na verloop van tijd namen de contacten tussen kolonisten en inheemse mensen toe en vervaagden de oorspronkelijke sociaal-politieke en juridische verschillen. Vooral de kinderen die

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voortkwamen uit relaties tussen lokale bewoners en koloniale migranten konden lastig geplaatst worden in het oorspronkelijke politiek-juridische systeem. Het lijkt erop dat in sommige gevallen de gemeenschappen zo dicht naar elkaar toegroeiden dat er besloten werd om ze formeel te verenigen. Het duurde in de meeste gevallen echter pas tot de eerste eeuw voor Christus, toen Italië in politiekgeografisch opzicht geheel gereorganiseerd werd, totdat alle juridische en politieke barrières waren verdwenen, en een complete versmelting van inheemse en koloniale gemeenschappen mogelijk werd.

CURRICULUM VITAE

Jeremia Pelgrom werd geboren op 21 juni 1975 te Maastricht. In 1995 behaalde hij zijn Vwo-diploma aan de Geert Grote School te Amsterdam. Hij studeerde in 2003 '*cum laude*' af in de Mediterrane Archeologie aan de Vrije Universiteit te Amsterdam. In september 2004 werd hij aangesteld als assistent in opleiding aan de Universiteit Leiden. Tussen 2006 en 2010 combineerde hij deze functie met een baan als Docent Mediterrane archeologie aan de Vrije Universiteit van Amsterdam. Tegenwoordig is hij Docent Klassieke archeologie aan de Radboud Universiteit Nijmegen