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Chapter 19
Cosa and the Ager Cosanus
Elizabeth Fentress and Phil Perkins

Abstract

Cosa and its territory, the *Ager Cosanus*, are often taken as the typical exemplars of a Roman colony, its territory and history over time. This chapter summarizes what we know of the urban plan of the colony of Cosa and its development over time, and the evidence for the settlement of its territory. The colony's high point appears to have been the second century BC, when most of the public buildings were erected, and its *insulae* were occupied by both large and small houses. In the countryside there were numerous small farms. During the late second and early first centuries these were gradually replaced by villas, of which Settefinestre is the best known, and agricultural production was widely exported. The destruction of the town around 70 BC does not seem to have affected the inland settlement, where a large number of villas continued to flourish. The Augustan reoccupation of the town was on a smaller scale, and subsequently both the town and the territory experienced a marked decline in occupation.

Keywords

Cosa, colony, Capitolium, forum, comitium, urbanism, demography, settlement, villa, farm.

19.1 Cosa

19.1.1 Introduction

Widely cited as an exemplar of middle-Republican colonial urbanism (F.E. Brown 1980), the status of the city of Cosa as the ideal type of a Roman colony has recently been called into question (Fentress 2000; Dyson 2005; Bispham 2006). The faith of its excavator, Frank Brown, in its ability to represent Rome both in terms of its individual monuments and overall layout, led both to its fame and to the assiduity with which it was excavated for fifty years (1948-1998) by the American Academy in Rome. In spite of the evident *lacunae* in our knowledge of the site (we know nothing of pre-imperial public baths or any market buildings), it still provides an interesting example of the subtlety with which Roman ideas of layout and urban structure were adapted to particular local contexts.

19.1.2 The colony of 273 BC

Settled as a *colonia Latina* in the thinly-settled territory of the recently defeated Vulci in 273 BC (Velleius Paterculus 1.14.7; Livy, Book 14 Summary/ *Periocha*; Strabo, *Geography* 5.2.8), Cosa occupied a virgin site on a promontory between two fine natural harbours, the *Portus Cosanus* (McCann, ed. 1987) and the *Portus Feniliae* (Calastri 1999). It overlooked the fishing resources of the lagoon of Orbetello, where a subsidiary settlement was enclosed by polygonal masonry walls on an isthmus in the lagoon. This settlement was Etruscan in origin and may have been the major port of the colony in the third century, with its lagoon serving as a naval base in the Third Punic War (Ciampoltrini 1995). Cosa dominates the coast from a hill rising some 110m. above the sea which creates a forced passage along the coast. This was later followed by the *via Aurelia*, built either in 241 or 201 BC (Fentress 1984). We do not know much about the initial colony: it is possible that there was, in fact, not very much of it. Certainly the walls, in splendid polygonal masonry, were built in this period. These exploit the defences provided by the natural terrain of the hilltop, encircling 14 hectares with an irregular shape. Towers were built at the four gates from which led roads to the *via Aurelia*, or its Etruscan predecessor, and to the ports on either side of the promontory. The only disadvantage of the site, and perhaps the reason why it was not occupied in

the Etruscan period, was the lack of water: a small spring is found outside the town to the southeast, but the limestone formation of the hill means that the only reliable source of water is found at the *Portus Cosanus*, where there is a larger spring. This made the provision of adequate cisterns a prerequisite for the creation of a settlement on the hill.

It seems likely that the street grid was also created at the time of the foundation of the colony. Its layout is orthogonal, roughly parallel to the northeast wall and the coast. The small forum occupies the only available patch of relatively level ground, a saddle between the *Arx* and the Eastern Height. The *insulae* are of irregular widths and lengths, truncated by the even-more irregular walls. The plan of the town has been recently re-analysed by Jamie Sewell, who proposes a radical alternative to the traditionally-accepted arrangement (Sewell 2010). Focussing on the anomalous size and shape of the forum, and the fact that the public buildings on its northeast side actually block Street 7, whose existence is revealed by an early *cippus*, he suggests that in the original plan of the town the forum occupied the whole area between streets 5, O, 6 and Q, a layout in which street 6 would have continued across the northeast side of the forum. This arrangement would have allowed the streets from three of the gates to pass along the sides of the forum, while the larger forum compares better with those of other mid-Republican colonies, measuring 360 x 200 feet, or 5 *actus quadrati* [Fig. 19.01: Reconstruction of the plan of the colony as it might have looked in around 150 BC with the larger plots darker grey and the smaller ones lighter. Sewell's hypothesis on the original plan of the forum and related roads is indicated by black lines.]

This proposal is attractive in that it creates a far more rational plan than that which we find today. However, there are various problems with it. Street 5 lies over three metres higher than Street 7. A stretch of preserved bedrock at the entrance to the forum, on the alignment of Street P, shows that this difference in height is created by a sharp rise in the bedrock along the whole southern half of the proposed forum. This irregularity was not removed until the construction of the houses along the south side of the current forum, in the second quarter of the second century BC. Can we seriously imagine a forum that for eighty years remained unlevelled, with a steep outcrop of bedrock along the whole of its southern edge? Further, there is very little evidence for any buildings that would have formed part of this early forum plan.

One solution to this issue lies in a reconsideration of our evidence for the third-century colony at Cosa. The only building we can certainly attribute to the earliest phase is the square structure on the *Arx*, apparently the predecessor to the Capitoline temple. This measured 7.5 x 7.5 m., or 25 x 25 Roman Feet, and was oriented just east of north. To the north, and on axis with it was a square hole, which was interpreted by Brown as the *mundus* of the colony, together with the *Cosa quadrata*, on the model of the elusive *Roma quadrata* (Brown 1960, 9-17; Brown 1980, 16-18). More recently, Rabun Taylor has suggested that, while the interpretation of the *mundus* remains plausible, at least as a votive deposit under an altar, the square structure must have been the original temple, some of whose terracottas were found under the later temples (Taylor 2002, 66-80). Its date does not seem later than the early-third century, and its dedication remains unknown (Bispham 2006, 98-99).

But there is precious little other evidence for early third-century activity on the site. The huge cistern at the southeast corner of Sewell's proposed forum may belong to this period, but we have no direct evidence for this. It would have been the only building which materialized the original forum; we might imagine that it was laid out, like the Roman road network, but that major building works were not undertaken until much later in the century.

The *curia-comitium* complex on the northeast side of the forum seems to be firmly dated to the third century, in that it is abutted by a building which went out of use around 220 BC. The

comitium consisted of a circular floor from which rose a set of eight or nine curved steps providing standing space for the assembly of the citizens: Brown has calculated that it could accommodate 600 individuals (Brown, Richardson, Richardson 1993, 26). This was inscribed in a roughly square podium built of mortared walls faced with thin rectangular blocks of stone, and measuring 16.20 x 17.50 m. (Brown, Richardson, Richardson 1993, 13). A wide door opens onto the forum. Behind and bonded to it rose a hall on a high foundation whose door opened onto the *comitium*. This was covered with a tile roof and decorated in painted plaster in the Pompeian first style, but we can say little else about the structure, which was largely obscured by later rebuilding. The complex, however, finds close parallels at Poseidonia, Fregellae and Alba Fucens (Greco 1988, 83; Brown, Richardson, Richardson 1993, 256-78; Coarelli 1999, 31, 55-56; Mertens 1968, 208-17; Sewell 2010, 41). As both the *curia* and the *comitium* block Road 7, and the *comitium* sits well inside the area of the 'larger forum', their construction seems to imply the redesign of the forum at this time, perhaps in the third quarter of the century, after the interruption of the First Punic War. A reduction in available manpower to carry out the massive amount of levelling necessary for the realization of the earlier forum plan might have caused the change of plan. It seems certain that there were very few people in the colony at this time. To date, no private buildings have been found for this period (Fentress *et al.* 2004, 13). We thus have no idea where the people who built the walls, the first temple, the *curia/comitium* or the large cistern actually lived.

The dimensions of the forum as it is seen today were thus established perhaps forty years after the foundation of the colony, around 240 BC. Its sides were emphasized with eight planting pits in two rows on either side of the open space: the edges of the levelled open space were marked with trees rather than a portico.

19.1.3 The Deduction of 197 BC

The lack of manpower was sufficiently acute at the end of the Second Punic War that the colony petitioned for new settlers in 199 BC, receiving them in 197. This was probably the point at which domestic architecture in stone began on the site. In all cases the construction of the houses started with the cistern, which was cut out of the limestone bedrock and plastered. The stone deriving from this excavation was then used to lay the foundations and first courses of the walls, which rose to around 50 cm. above ground level. In the second century BC these were of dry-stone, with the stones carefully faced. Over these socles the walls were built of *pisé de terre*, pounded between shuttering. After the roof was tiled, the walls were plastered, producing a durable structure. Larger houses might have two cisterns, one receiving the rainwater from the roof at the rear of the house.

It seems clear from the plan of the colony that there were two standard sizes for the houses of the town (Fentress 2000, 15-20). Around three sides of the forum and along the wider, 'processional' streets were found houses with street frontages 60 Roman feet wide, using the canonical plan familiar from Pompeii and elsewhere: a vestibule flanked by *tabernae*, leading through a *fauces* into an *atrium*, with the *tablinum* on the axis of the door. *Cubicula* and *alae* were found on either side of the *atrium*, while behind the *tablinum* lay a garden with perhaps a small bath house. One of these, the 'House of Diana', was entirely excavated between 1997 and 1999 (Fentress *et al.* 2004, 14-23, 34-62).

Elsewhere in the town were found houses of an entirely different plan. Near the museum, northwest of the forum, Russell Scott excavated a long insula divided into house plots 8.5 m. wide, or just under 30 Roman feet, around half the width of those on the forum plaza (Bruno and Scott 1993, 13-63). On the southwest side of each plot was built a simple house, with a courtyard or *atrium* at the centre. A *tablinum* and at least one *cubiculum* opened off this space. Behind the houses the plots were terraced at a lower level, with steps leading down to a garden and service areas. The basic layout here is similar to what we have seen on the forum, but on a smaller scale. The same hierarchy is inscribed in the streets, which were paved for the first time during this

period. The ordinary streets are 6 m. wide. However, the street leading from the forum to the *Arx*, and the street which leads from the southwest gate to the Eastern Height, are 9 m. wide, and by the middle of the second century BC each of them led to a sacred area. Brown called these 'processional streets'. It is along these that further large *atrium* houses appear to have been built (Roca Roumens 2007). It thus appears that there were houses for two classes of colonists, some of whom received plots exactly twice as large as the others. This scheme is suggested on **Figure 19.01**. The best estimate of their numbers is twenty-one larger houses, with around 238 smaller ones. These could have housed 259 of the 1,000 new colonists, and the proportion between larger and smaller houses is slightly less than one to ten. These figures bear a close resemblance to those for a series of colonies sent out in the first two decades of the second centuries BC. At Thuri Copia and Castrum Frentinum in 193 BC three hundred *equites* received plots of forty *iugera*, while 3,000 *pedites* received twenty (Livy, *Epitome* 35, 9, 7-8); at Vibo, in 192 BC, there were three hundred *equites* and 3,700 *pedites*, and again the *equites* received double-sized allotments (Livy *Epitome* 35, 40, 5-6); similar proportions applied at Bononia and Aquilea in 190 and 181 BC (Livy *Epitome* 40, 34, 2-4). It seems that the Latin colonies of the period following the Second Punic War followed a consistent pattern, with colonies designed to accept two or three orders of colonists, and plots assigned by rank. The settlers, as we know from Livy, were drawn from the allies of Rome in the Second Punic War, and were in all probability veterans. The settlement, with its two orders of streets and two orders of houses, clearly reflects the difference in rank of its settlers. The Forum would have been surrounded on three sides by the houses of the decurions, probably chosen from among the *equites*.

19.1.4 The Forum

[Fig. 19.02: The forum at the end of the second century BC (stippling shows excavated area)]

All of the principal public buildings were built, or rebuilt, beginning in the first quarter of the second century BC, around the same time as the construction of the houses. The architectural definition of the Forum, and its related public buildings, seems to have been a primary concern. On the three sides occupied by private houses and *tabernae* a portico was created, draining into a gutter around the open space, which seems to have been finally levelled at this time, and surfaced with beaten earth and small stone chips. The trees seem to have been eliminated at the same time.

Along the northeast side of the forum a new set of public buildings was created, apparently at the expense of the private housing which previously occupied the spaces on either side of the *curia* (Fentress, *et al.* 2004, 30-31). The *curia* was rebuilt, this time on a high podium of massive, irregular masonry. An *amphora* stamp of c.180 BC gives a *terminus post quem* for the reconstruction, which we may date in the second quarter of the century (Brown, Richardson, Richardson 1993, 11, 227). Shortly thereafter the podium was expanded by two rooms flanking the original space, creating a building of three parallel halls facing onto the *comitium*. The new *curia* was abutted on its southeast side by a temple built slightly later, on a podium built of the polygonal masonry which would from this period mark the important buildings of the town. The temple, known as Temple B, took the place of a raised altar built against the *comitium* at the beginning of the second century, perhaps at the inception of the new deduction. The temple comprises a *cella* and a deep *pronaos* which is reconstructed by Brown as a distyle porch two columns deep, with Hellenistic Tuscan capitals (Brown, Richardson, Richardson 1993, 143-53). Brown, on the analogy of the Roman Forum, proposed that the temple was dedicated to Concord, a suggestion supported by an inscription to Concordia found built into a medieval grave (Brown, Richardson, Richardson 1993, 141; Brown 1980, 31). However, the terracottas include two seated female figures which Richardson identifies as most likely to be Ceres and Proserpina. A third statue, apparently holding the piglet whose head is preserved, suggests that this was an offering to Ceres, supporting this identification (Brown, Richardson, Richardson 1993, 184-206).

The final public building erected on the northeast side of the forum was the basilica, one of the earliest in Italy, dated by a coin in its foundation to some time after 157/156 BC (F.E. Brown, Richardson, Richardson 1993, 207-36). This was built in the space to the northwest of the *curial/comitium*, occupying the whole of the space between the façade of the forum and street 7, 35.89 m. x 27.05m, built on a rubblework foundation supporting a vault which terraced the building up to the level of the Forum, and contained cisterns. A row of columns with Doric bases and capitals ran along the façade, while in the interior columns defined a rectangular space, which probably supported a clerestory with a smaller second order of columns. A flight of steps led to a terrace over the ambulatory, on the model of the *Basilica Aemilia (Paulli)* at Rome, built in 179 BC. To the rear of the building an *exedra* projects that was probably intended for a tribunal. The construction of the basilica in this period underlines the growing political and economic importance of Cosa in this period, after two generations of steady development since the end of the Punic Wars.

19.1.5 The *Arx*

A visual link between the forum and the hill to the south, referred to as the *Arx* by Brown, is formed by the broad street P, leading out of the centre of the long side of the forum and climbing up towards the gateway in the wall which sets off the *Arx* from the rest of the town, forming a sort of extended *temenos*. Street P climbed directly towards the square structure at the top of the hill that Taylor (2002) interprets as the earliest temple of the colony. In the second quarter of the second century BC, at the same time as the work on the various buildings of the forum was beginning, this little temple was replaced with a far larger one which was interpreted by Brown as a *Capitolium*, the date based on coins found in the foundation and in the mortar of the mosaic flooring of the south cella (Buttrey 1980, 32-33 and 41). This is a large structure comprising the temple with a triple cella, a deep columnar *pronaos*, and a terraced forecourt. The *mundus* of the earlier temple, perhaps occupying the position of its altar, lies directly under the middle cella, but the orientation of the temple is very different, standing at an angle to the axis provided by street P. Its podium is, again, built of beautifully dressed polygonal masonry. Above this, the cella walls were built of concrete faced with small brick-shaped blocks of limestone, stuccoed white on the insides. On the outside of the building the podium was topped by a base and crown with a heavy, rounded Tuscan *torus*, over which was built the facing of squared ashlar blocks in sandstone. On the *pronaos* four columns supported the roof, while *antae* formed by the prolongation of the walls of the cella flanked two further columns. Behind these, and parallel to the façade of the temple, was a deep cistern extending for the entire width of the building. This was evidently intended to collect the rainwater from the roof. The building's eaves were wide, as its drip lines show, and the elaborate terracotta decoration would have given it an archaic look, looming over the town from the top of the hill. Its attribution to the Capitoline triad is unproven, and would be anomalous for a Latin colony in this period; Bispham suggests that the temple was dedicated to Jupiter, Hercules, and Minerva (Bispham 2006, 100-2).

Although the smaller Temple D, to the north of the large temple, has always been assumed to have preceded it there is in fact no evidence for this beyond the stylistic dating of the related terracottas (Taylor 2002, 72; Brown 1960, 182-98, Strazzulla 1985; Scott 1988). Indeed, the smaller temple seems placed to respect the position of the larger one, with its south corner on the axis provided by the front of the forecourt. Temple D is again tetrastyle on a polygonal podium, with a larger space between the middle two columns. The *antae*, with engaged columns at their ends, give the impression of a second row of columns, but the *pronaos* as a whole is proportionately much shorter than those of the *Capitolium* or Temple B. The Doric order of the columns will, again, have given a sober and rather archaic look to the whole. It is not clear to whom the temple was dedicated: Mater Matuta has been suggested (Brown 1980, 47-49; Bispham 2006, no. 140).

19.1.6 The Eastern Height

A final religious building is represented by a small podium in polygonal limestone blocks on the Eastern Height (Fentress, *et al.* 2004, 29-30). Here the whole top of the hill was levelled to create an open space measuring *c.*30 m., perhaps 100 Roman feet, by 23. The temple was situated in the centre of the northwest edge of the sanctuary, looking out to sea, its axis exactly 14.78 m., or 50 Roman feet from the northeast sanctuary wall. Its identification as a temple is based on the polygonal masonry of its foundation and on the few architectural terracottas found nearby: its outer dimensions of 6.25 x 11.25 m. make it smaller than Temple D, although its masonry appears to have been directly comparable.

19.1.7 Cosa in the late Republic and Early Empire

The half-century following 197 BC thus saw the construction of fully three temples, the rebuilding of the *curia*, and the construction of the basilica, as well as that of the *atrium* houses around the Forum and probably a substantial amount of private building elsewhere in the colony. The prosperity which this indicates must have come from the countryside, whose farms were closely connected to the town and its port, and from the rich fisheries around the lagoon of Orbetello, whose products could have been salted near the ports and sold in Rome. During the next seventy years, however, we can see little activity beyond the inevitable changes to private houses, with some consolidation of smaller buildings into larger ones, as we can see in the case of the House of the Treasure, or new constructions occupying older gardens, like the House of the Skeleton (Brown, Richardson, Richardson 1993, 79-148). The town apparently filled out any empty spaces, and continued as a prosperous *municipium*. However, this prosperity came to a violent end in about 70 BC. There is evidence in various parts of Cosa for destruction and abandonment at that time: the skeleton in the eponymous house was thrown into a cistern of the building. The best evidence for the date of this event derives from a hoard found in the House of the Treasure (Bruno and Scott 1993, 79 and 147), and Brown's suggestion that the sack was an attack by pirates stands unchallenged. We have no evidence for any reoccupation of the site before *c.*25 BC, although Scott suggests that it was garrisoned against Sextus Pompey from 40 BC (Bruno and Scott 1993, 161).

The origins of the Augustan resettlement remain somewhat obscure. The coin evidence for the House of Diana shows a gap between 70 and 27 BC, while the stylistic evidence from painted plaster suggests a date for its decoration between 20 and 10 BC, which should give a *terminus ante quem* for the settlement as a whole (Fentress, *et al.* 2004, 154 and 177). It may have been the object of veteran settlement, although we have no direct evidence for this. The resettlement of the colony would have provided services, a market, and a political base to the farmers that remained in the territory. The sample trenches indicate that the new town was smaller than the old, with only the forum and nine central *insulae* reoccupied. The new houses were generally bigger and better: the House of Diana was rebuilt with a loggia which occupied part of the old garden, while it used the ruins of the next-door house for a kitchen garden.

Some investment took place in public buildings: an altar from the *Arx* may record the *suovetaurilia* sacrifice at the lustral rites involved in the rededication of the temple (Brown 1960, 518; Fentress, *et al.* 2004, 208-09), while one of the *tabernae* of the House of Diana appears to have been used as a little cult building, with a mosaic floor and a stuccoed ceiling (Fentress, *et al.* 2004, 36).

A new catastrophe struck the town in the middle of the first century AD. This took the form of an earthquake, which demolished the basilica and appears to have damaged the roof of the 'Capitolium'. This earthquake, which may be associated with that which occurred the day Nero donned the *toga virilis* in AD 51 (Tacitus, *Annals* 12.43.1; Fentress, *et al.* 2004, 55-62), apparently occasioned the appointment of a *curator* to manage the affairs of the ruined town: a number of dedications allow us to identify him as L. Titinius Glaucus Lucretianus (*AE* (2003) 632, 633-37;

Fentress, *et al.* 2004, 56-62). Brickstamps show that he was involved in the replacement of the roof of the Capitoline temple, while a number of statue bases and statues found on the site of the old basilica show that he was active in its transformation into an *odeum*, with statues of Claudius and Nero: the latter is mentioned on two further inscriptions (*AE* (2003) 630, 631. Gros 2000; Collins Clinton 2000). He may have been the final owner of the House of Diana, where a little shrine to Diana ornamented with an inscription was built in the garden at this period. This, however, was almost the last sign of life in the town, which by the time of Trajan seems to have been prematurely deserted. A brief reoccupation took place under Caracalla, associated with the construction of granaries around the forum and the reconstruction of its portico, backed now only by ruins where there were no granaries [**Fig. 19.03: The forum in the third century AD**] (Fentress, *et al.* 2004, 63-69). At the southeast end of the forum the former street was blocked by a shrine to *Liber Pater*, the tutelary deity of the Severan House (Collins Clinton 1977). The site was now referred to in inscriptions dating from the reigns of Caracalla to Aurelian as the *Res Publica Cosanorum* (*CIL* 11.2633 and 2634; *AE* (1983) 325), but it seems to have been largely empty of *Cosani*, with only two *insulae* still occupied outside the immediate zone of the Forum. This occupation does not seem to have survived the third century, except for the occasional coin found at the shrine, perhaps traces of an annual festival. Rutilius Namatianus, who sailed past the site in AD 416, remarked on the ruins of the site, deserted because of a plague of rats (Rutilius Namatianus 1.285-90; Cirelli and Fentress 2012).

The last reoccupation before the middle ages seems to have begun around the middle of the fifth century, when a small settlement was created on the ruins of the basilica/*odeum*, and another on the Eastern Height (Fentress 2004, 72-86). The lower settlement was composed of two houses, a large oven, a small church and a cemetery to the north of the church, as well as, perhaps, a few other buildings not yet discovered. A road along the line of street P linked this little settlement with the *Arx*, where a granary was built abutting the south side of temple D, using drums from its columns to support a wooden floor. Stabling seems to have been provided for horses to the northeast of the large temple, while there was certainly housing within the temple structure. It is probable that this settlement represents what remained of the imperial villa previously located at the *Portus Cosanus*, still managing the imperial properties in the area (Ciampoltrini and Notini 1993). In the middle of the sixth century, after an incident in which the granary was burned, the *Arx* was refortified with a strong wall reinforced by towers on its east side. An inscription mentioning a [*ne*]apolis (*AE* (2003) 368) may suggest that this was a deliberate Byzantine foundation, aimed at the control of the *via Aurelia* and all traffic along the coast. Both *amphorae* and fine wares point to a well-established supply chain. It was probably this settlement that took the name of Ansedonia, the modern toponym, which has been plausibly explained as deriving from the *sitionia*, or granaries on the site (Patitucci 2001, 199). Indeed, we can see here a recurrence of the function of the site as a point for tax-gathering which was first materialized by the granaries of the Severan period: clearly it had remained on the imperial books. The settlement did not survive, however, and there is no evidence for occupation on the site from the seventh until the ninth century.

19.2 The *Ager Cosanus*

When the colony of Cosa, the first in Etruria, was founded it was given part of the land of the defeated Etruscan city of Vulci. The northern extent of the territory of Vulci is debated, but the boundaries of Medieval dioceses have been used to reconstruct the hypothetical *Ager Cosanus* as contained by the River Albegna to the north west, the River Elsa and Elsarella to the north and the River Tafone to the east (Perkins 2010, 103-04). This area of 550 km.² consists of thickly wooded limestone hills in the interior and about 220 km.² of fertile (when drained) low-lying coastal plain of Pleistocene deposits with little transitional terrain. The Pleistocene deposits constitute the best arable lands. Closest to Cosa in the Val d'Oro and the coastal strip there are clayey sands and conglomerates deriving from marine deposits or erosion from the interior hills. In the lower

Albegna valley the deposits form an extensive terrace at 15 m. altitude running from the coast to Marsiliana along the southern bank of the River. In the western part of the *Ager* the lagoon of Orbetello survives whereas all the former lagoons on the coastal strip to the south have now been drained except the Lago Burano. The largely mountainous Monte Argentario is connected to the mainland by two sandbars and appears to have sustained little Roman settlement.

The *Ager* seems to have been centuriated at the time of the first foundation, given the rectangular module of 16 x 32 *actus*, and was aligned to 56°, unlike the city street plan. The *kardo* of the centuriation was drawn from the north east gate of Cosa sighting towards the mouth of the river Albegna. At a distance of 16 x 16 *actus* (9.088km) it intersects the orthogonal *decumanus maximus* that runs north east along the 15 m. Pleistocene terrace and appears to have been surveyed to intersect with the hill of Marsiliana by the River Albegna at the northern confines of the *Ager*. Conveniently, the *decumanus* that intersects the north east gate of Cosa runs across the Val d'Oro; thus the three main axes of the centuriation traverse the best, and most densely settled agricultural land. These main axes appear to have been roads; the *kardo* partly coincides with the later *via Aurelia* perhaps dating to 200 BC, linking Rome to Pisa and eventually Liguria. The *decumanus maximus* continues to become, or at least join, the *via Clodia* at Saturnia, and the minor axes appear to have been stone walls. Surviving traces of the land division are largely confined to the flatter land below 50 m., coincident with the most fertile agricultural land. There are indications that the hills behind Orbetello to the north of Cosa were enclosed by a wall of polygonal masonry, perhaps separating the public grazing lands (*ager compascus*) from the centuriated areas (Celuzza 2002a; Attolini 2002).

19.2.1 Settlement history

Large scale excavation and systematic field survey of approx. 100km.² in the 1970s and '80s (Carandini and Cambi eds 2002, 43-62) has provided a diachronic account of the development of the Roman settlement pattern enabling the archaeological study of the impact of the Roman conquest, centuriation, implantation of small farms, and the growth of the slave-powered villa system in central Italy (Dyson 1978; Carandini ed. 1985a; Carandini 1985b; Carandini and Cambi eds 2002). The Roman conquest of the area led to a generalized restructuring of the settlement pattern. Orbetello, the only Etruscan centre of population in the *Ager*, survived the conquest and appears to have been fortified with walls identical to those of the colony. Centuriation of the land implies, at the least, a redefinition of the ownership of land parcels and probably an eviction of the previous Etruscan owners in the areas closest to the colony. However, in the third century, after the founding of the *colonia*, rural settlement is not extensive. [Fig. 19.04: Settlement in *Ager Cosanus* in the 3rd Century BC. Key: 1 Statio, 2. Village, 3. Villa, 4. House 2, 5. House 1, 6. House / Tomb, 7. Tomb / Cemetery, 8. Port] There is a cluster of sites in the Val d'Oro to the north of Cosa, a thin scatter in the lower Albegna Valley and a more consistent scatter in the valleys of the Chiarone and Tafone – the areas closest to Vulci and up to 15 km. from Cosa [see Table 1]. It may be the case that the early colonists – few in number – were largely settled in the Val d'Oro or Cosa itself and the more distant areas were retained by their Etruscan owners. There is good evidence for continuity of pre-conquest frequentation of the new Roman sites at only thirteen sites in the entire *Ager* (five cemeteries, one tomb / house, four houses, three villages). There is not good evidence for widespread building in all the centuriated land that might be interpreted as one farmstead for each of the colonists which would require a theoretical 2,000 individual farmsteads (Rathbone 1981, 17). There are methodological problems in interpreting the findings: fragments of black gloss tableware are not precisely datable and settlements from the third century may well be masked by later, larger settlements such as villas on the same site. Nevertheless fifty-four of the eighty-nine sites are the smaller sites; house / tomb, house 1 and house 2. House / tomb sites are scatters of solely tile fragments covering less than 10x10 m. where it was not possible to distinguish between burial or settlement use. House 1 sites are surface scatters less than 30 x 30 m. with domestic refuse but no

luxury items. House 2 sites are surface scatters larger than 30 x 30 m. with evidence for stone buildings or substantial flooring such as *opus spicatum* or *cocciopesto* (Carandini and Cambi eds 2002, 59). The early sites classified as villas, are most likely small settlements that only later developed into villas: the nature of surface scatters makes it difficult to tease out separate phases of occupation at the same site. Overall seventy rural settlement sites were located within the sampled transects that represent only 20% of the surface area of the *Ager*; multiplying this by five to represent 100% of the area would still only make 350 sites, far short of the theoretical maximum.

Table 1

Site type	4 th C. BC	3 rd C. BC	200-50 BC	50 BC- AD100	2 nd C. AD	3-4 th C. AD	5-6 th C. AD	7 th C. AD
Statio	-	(1)	1	1	(1)	1	1	1
Village	(3)	(4) 1	1 (3)	3	1(1)	-	-	-
Settlement	(2)	(2)	-	-	-	-	-	-
Port	(1)	(2) 1	(2)	2	1 (1)	1 (1)	(1)	-
					22 (14)			
Villa	(3)	(9) 6 1 (13)	9 (20) 19	41 13	1	12 (4)	10 (3)	2 (4)
House 2	(3)	10	10 (23) 19	19 3	2 (3)	2 (2)	1 (1)	-
House 1	(1)	(26) 25	(37) 13	24 4	2 (6)	(2) 1	1 (1)	-
House /								
Tomb	(6)	(14) 11	3 (14) 5	10 1	1 (3)	1	1	-
Cemetery	(8)	(12) 4	(13) 4	5 1	(5)	-	-	-
Tomb	(6)	(6)	1 (7) 3	7 4	(1)	-	-	-
Dump	-	-	(3) 3	1 (1)	(1)	1	-	-
Kiln	-	-	(3) 3	2	1	1	-	-
		1 (89)	25 (125)		30 (36)			
Totals	(33)	58	69	117 (1) 25	1	19 (9) 1	14 (6)	3 (4)

Table 1: Sites within sample transects in the *Ager Cosanus* by type. Numbers indicate certain sites representing a minimum, numbers in brackets indicate uncertainly dated sites, adding the two provides a maximum number of sites. Numbers in bold indicate new foundations and are included in the certainly or uncertainly dated totals. Lack of certainty is caused by precision of dating of different types of ceramic in different periods.

In this period up to four villages may have been occupied. They all lay on the coastal strip more than 10 km. from Cosa. Two of these were ancient Etruscan settlements first occupied in the Archaic period and another was occupied in the fourth century. This class of site has not been explored by excavation but it would seem likely that these settlements, relatively remote from either Cosa or Vulci, would have performed some market or administrative functions. Another class of site that is distributed in the peripheries of the *Ager* are rural sanctuaries. Votive deposits dating from the third/second century have been recovered from Costa di Gherardino, near Marsiliana, and San Sisto in the lower valley. They consist of terracotta heads and body parts, *aes rude* and coins, and a statuette of a youth with a boar and a monkey on his shoulders, and so are typical of Etrusco-Italic and Campanian areas. Other votive finds, including a baby in swaddling, have been made near Orbetello but are poorly documented. In the north of the *Ager* just 1 km. from Costa di Gherardino, a kiln site, possibly related to a villa, manufactured anatomical votives as well as other ceramics from perhaps the third century to the first century AD. The cults seem to be related to health, but may also perform a liminal role at the boundaries of the *Ager* (Camilli *et al.* 2007, 356-57; Angás Pajas 2005; Rendini and Firmati 2003, 22-24; Rendini 2009).

Some thirty inscriptions provide limited evidence for the people living in the *Ager Cosanus*. Nearly half of these are public inscriptions from Cosa and the remainder are funerary inscriptions of slaves and freedmen and women (Manacorda 1979). Evidence from the field survey for burials in the *Ager Cosanus* is limited in its quantity and quality since it was not possible in surface survey always to be confident of separating tombs from settlements. However, the data table suggests that there was a significant degree of continuity in burial places between the Etruscan and Roman periods. This is particularly notable in the eastern part of the *Ager Cosanus* in the valleys of the Chiarone and Tafone that are closest to Vulci: these are also the areas in which the two continuously occupied villages are found. Such continuity, often into the Augustan period, is common in the interior of Etruria, but is surprising in the *Ager Cosanus*, given the violent conquest of Vulci by the Romans. However, this continuity is limited to the eastern borders of the territory of Cosa.

The Punic wars and other unrest in the third century do not seem to have had a catastrophic impact on the settlement pattern. Only seven possible settlements do not continue to be inhabited in the second century suggesting only very limited decline in the rural population. However the arrival of 1,000 new colonists in 197 BC marks the beginning of a period of intensification of rural settlement (Carandini and Cambi 2002, 158-68).

[Fig. 19.05: Settlement in *Ager Cosanus* 200-50 BC. Key: 1. *Statio*, 2. Village, 3. Villa, 4. House 2, 5. House 1, 6. House / Tomb, 7. Tomb / Cemetery, 8. Port] The period from 200-150 BC is coincident with the period of greatest development and prosperity in Cosa when houses were built and the public buildings redeveloped. After the injection of new colonists in 197 BC the rural settlement pattern develops considerably with the emergence of a dense, hierarchical settlement pattern in the Val d'Oro and the lower Albegna Valley whilst the more peripheral parts of the eastern and northern *Ager* are less intensively occupied. A small number of villas may have been developed at this time but the most common category of site is the house 2 (10-32 sites). In 1981-2, a house 2 site was excavated at Giardino Vecchio 7.75 km. to the north east of Cosa. **[Fig. 19.06: Plan of farm excavated at Giardino Vecchio]** Unfortunately, it has never been fully published, but a preliminary report and plan indicate that it was a well-built stone structure covering approx. 500 m.². The farm focussed on a 7.5 x 6.25 m. internal courtyard entered from the north east through a wide passage, with two large rooms with plastered walls and floors, a kitchen with a tile oven and a workroom containing a loom on one side. Opposite these were a wine press and *dolium* for fermentation and store rooms with further stores on the fourth side. On the exterior of the south east side were lean-to stables. Finds included ceramics and *amphorae* made at Cosa and numerous coins, including two in silver (Celuzza 1985b). All in all the farm forms a plausible home for a prosperous colonist and the evidence for wine and textile production along with the coins suggest the farm participated in the monetary economy of the region, perhaps contributing to Cosa's wine exports.

We know less about the smaller house 1 sites and the house / tomb sites. These could plausibly be the homes of free citizen farmers. The density of sites seems consistent with a land assignation of 16 *iugera* per (lower class) colonist (Celuzza 2002a, 123). A small rectangular structure with stone foundations and associated hut at Casa Brancazzi, near the mouth of the Albegna, probably equate to a house 1 site. They were occupied through the first century BC and finds of lead weights and loom weights indicate fishing and textile manufacture. The structure is very basic, but finds of ceramics, bronze, and coins indicate engagement with the local economy (Ciampoltrini 1984).

From the mid-second century into the first there is a generalised decline in the number of smaller rural settlements and a growth in the number of larger villas. This process coincides with the 'agrarian crisis' of Rome, the rapid expansion of Roman power within and beyond Italy, the

influx of slaves into Italy, and ultimately the Social War and Civil Wars (Launaro 2011). According to Appian, writing much later, ‘The rich ... came to cultivate vast tracts instead of single estates, using slaves as labourers and herdsmen, lest free labourers should be drawn from agriculture into the army’ (Appian, *Civil Wars* 1.7). Within this turbulent context, the settlement pattern and economic basis of the *Ager* appears to have been transformed, and by the Augustan period the settlement in the areas closest to Cosa and the lower Albegna valley are entirely dominated by large, slave-powered villas. Smaller farms survive in peripheral areas, but in the core of the *Ager*, as at Giardino Vecchio for example, the small, free landowner has almost entirely disappeared (Carandini 1985; Carandini and Cambi 2002, 158-96). None of the villas has been excavated in detail and so it is not possible to ascertain how many had developed from smaller, earlier farms. Equally, we cannot be sure that these villas conformed to the type of villa found in Cato, rather than being closer to the slave-run villa described by Varro (Regoli 2002a). This general transformation has been taken as exemplifying the rise of externally financed, capitalist, slave-run estates designed to render income to the Roman elite at the cost of dispossessing free smallholders. This transformation is, however, only clearly visible in the good arable land closest to Cosa and in the lower Albegna valley; peripheral areas of the *Ager* and the territories of the neighbouring colonies of Heba and Saturnia, surveyed using the same methodologies, do not appear to have undergone such an intense process of villa development at the expense of smaller sites.

Typically, in the surveyed areas, the villas were large surface scatters of tile, stone, and ceramics (greater than 2,500 m.²) with traces of architectural elaboration such as a cryptoporticus, column drums or mosaic tesserae. Many of the villas in the lower Albegna valley, around Orbetello and the Val d’Oro took the form of a *basis villa*: a concrete cryptoporticus sub-structure with working and living areas built above. These are typically fully integrated with the centuriation, with the walls following the same alignment and each occupying one *centuria*. In the lower Albegna valley these are remarkably evenly distributed along the *decumanus maximus*. The best known is Settefinestre in the Val d’Oro, although it is late in the sequence and was not constructed until around 40BC.

[Fig. 19.07: View of the cryptoporticus and façade of the basis villa at Settefinestre.]

At Settefinestre, on a small hill overlooking the *via Aurelia*, 4 km. north east of Cosa, a large villa was excavated in the late 1970s (Carandini, ed. 1985b; 1988, 109-224) (see also Pollard, chapter 17, this volume). The villa and its gardens are enclosed by a wall with a turreted monumental façade resembling a city wall, an unusual feature shared with the nearby villas at La Provincia, Le Colonne, and Casa Marotti (Dyson 2002; Calastri 2004). The villa was entered from the top of the hill where a gate and a passage led into an open courtyard. To either side were stores, a cow shed, and kitchens. Twelve rooms each of about 3 x 3 m. housed the estimated fifty-two slaves who worked the villa and its lands and tended the sheep, goats, and cattle that were housed in a separate animal house and granary to the west of the villa. The main block of the villa was large (44 x 44 m., i.e. 150 x 150 Roman feet) and set on the hillside on a concrete cryptoporticus. It had two entrances from the courtyard: one led into the main living area, the *pars urbana*, and the other led into the working part of the villa, the *pars rustica* [cf. Fig. 17.02-17.03]. The axial layout of the *pars urbana* is arranged around an *atrium* and a second set of rooms around a *peristyle*. Additionally the villa had rooms facing out from this central core towards the countryside. All of these rooms have remains of high quality wall and floor decorations.

The rooms in the north east quarter of the building were linked to the main *atrium-peristyle* axis of the *pars urbana* by five different routes and so were closely integrated with the refined mosaic floors and painted walls of the living quarters. However, they held the agricultural machines of the estate: a donkey-powered olive mill, an oil press, and three wine beam-presses operated by a screw and linked by a hole in the floor to the vats (*dolia*) in the fermentation room below. Together these made up the heart of the *pars rustica* of the villa.

Andrea Carandini, the excavator of the villa, suggested that this building and its organisation closely matched a villa of the type described by Varro (*On Agriculture* 1 written in about 37 BC) and Columella (c.65 AD) (*On Agriculture* 1). Combining the evidence from the villa and the ancient sources enables the estimation of the productive capacity of the villa. The excavator suggests that the villa could have produced about 100,000 l. of wine worth about 60,000 *sestertii*. Other produce of the villa such as cheese, eggs, poultry, game birds, geese, ducks, wild animals, snails, dormice, honey, and fish could have provided twice this sum bringing a considerable total of 180,000 *sestertii*. The sale of surplus olive oil and grain could have raised the income further (Carandini 1988, 121 and 173-77).

Settefinestre provides a detailed case study of the economic functioning of a villa producing wine at the end of the Republican period and through the first century. Yet earlier, the transformation in the settlement pattern that started in the second half of the second century, is paralleled by evidence for the large scale export of agricultural produce from the region (Attolini *et al.* 1991). At both of the ports of Cosa, sherds of *amphorae*, both Greco Italic and Dressel 1, are abundant; they are even used to build walls. Although no actual kilns have been excavated, fire bricks have been found. The petrographic analysis of the *amphora* sherds, the quantity of sherds, and the very high frequency of amphora stamps of the Sestius family all indicate that the *amphorae* were made at the port and that the port enabled the export of wine and possibly fish products in *amphorae* made by, or for, the Sestii. The earliest *amphorae* date to the end of the third century BC, but the period of major activity peaks at the end of the second century, *amphorae* continue to be made despite the destruction of Cosa in c.70 BC, although production of the Sestius *amphorae* does seem to cease around 40 BC (Manacorda 1978; Will 1987 and 2001; McCann 2002, 28-30).

The infrastructure of the ports was also developed to support this economic activity: before the last quarter of the second century the port of Cosa had only a stone breakwater but in the next fifty years it was equipped with piers, wharves, a light house, a fresh water spring house, and a fishery (Gazda and McCann 1987, 137-55). Improvements were also made to the road system: south of Cosa the *via Aurelia* was built further inland and a *statio*, *Ad Nonas*, established at the crossing point of the river Chiarone, probably in 119 BC, creating a minor settlement, market and administrative centre in the eastern part of the *Ager* furthest from Cosa (Fentress 1984; Carandini and Cambi 2002, 134-35 and 159-60). North of Cosa the *via Aurelia* was rebuilt towards Pisa, probably in 115-09 BC (Fentress 1984; Coarelli 1988b) with a bridge, dock, and *mansio* built at Albinia, close to the mouth of the Albegna (Ciampoltrini 1997). Here, a second large-scale *amphora* manufactory developed, producing Greco-Italic, Dressel 1, Dressel 2-4 and flat-bottomed *amphorae*. A wide variety of stamps name at least fourteen individuals active between the last decades of the second century to the end of the first century BC. The SES and Albinia *amphorae* testify to the huge productive capacity of the new villa-based agricultural organisation throughout the territory. These *amphorae*, presumably containing wine and perhaps also fish products, were widely exported from the *Ager Cosanus* across Etruria to southern and central Gaul (Bogdani, Calastri, Vecchietti 2009; Vitali *et al.* 2007; Vitali (ed.) 2007).

The decline of Cosa after 70 BC does not seem to have directly impacted the development of the villas. It is likely that the villas grew on investment in the land by the Roman metropolitan elite rather than from the local elite in Cosa. A late Republican epitaph names a freedman, Lucius Domitius Pappus, and so complements the literary evidence indicating that Lucius Domitius Ahenobarbus, a prominent opponent of Julius Caesar, owned land in the area which may, in due course, have become imperial property when the family's property passed to his great-grandson, Nero (Manacorda 1979, 130; Celuzza 1985a; Celuzza 2002b, 202). Between 50 BC and 100 AD the villas, including the newly built Settefinestre and its monumentally walled neighbours, dominated the agricultural land in the coastal plain closest to Cosa and the lower Albegna valley. There was also an intensification of settlement, including villas on the sandbars joining Monte Argentario to

the mainland. Smaller farms persisted only in the eastern part of the *Ager* where there were far fewer villas. The villas were presumably still dependant on the wine industry, although the evidence for *amphora* manufacture ceases in the early part of the first century AD, suggesting other agricultural produce, not exported in *amphorae*, may have grown in importance. By the imperial period, the harbour at Cosa seems little used for exports, although imported material is still found at the port. Estimates of the population based upon the field survey data suggest a density of 19-21 people per square km. at this time (Fentress 2009).

Later in the first century and in the early part of the next, the number of villas declined by perhaps a quarter, and only one new villa site was founded in the second century. The late Republican economic and settlement structure, based on slave-run villas producing wine and owned by cultivated, interested, and occasionally resident owners, appears to have become obsolete as competition from the provinces flooded the markets in Rome with provincial vintages and brought the export of Italian wine to an end (Tchernia 1986; Carandini 1989a; Carandini 1989b).

At Settefinestre the villa was reorganised at the beginning of the second century AD. The oil and wine presses in the *pars rustica* were dismantled and the rooms converted into stores. The *pars urbana* was redecorated, becoming less sumptuous, although a large complex of hot and cold baths was added. The rooms around the courtyard were reorganised and to the south west a second courtyard with rows of small rooms about 3 x 3 m.² was built. Each room opened onto the courtyard, the walls were unplastered, and no flooring was found. This new block has been identified as a new set of cells and services for slaves that could have raised their total number to about 100 (Carandini 1988, 173-77). However, Marzano suggests that the rooms could also have had other uses, such as stables (Marzano 2007, 130-38). Further to the south west another similar structure was built with smaller cells arranged around a courtyard. The building matches the descriptions by Varro and Columella of a pig sty. The excavator suggests that these developments represent a fundamental shift in the economy of the villa, and that the villa had started 'farming' slaves, with female slaves kept for breeding purposes and any children not required for labour sold at market. Alongside, there is the development of a pig farm, and possibly an increase in arable output (Carandini 1989b; Carandini 1988, 185-219).

It is not known how typical Settefinestre is of the villas in the area, or whether it may have become part of a larger estate with merged infrastructure and services. Imperial estates may also have grown: in addition to the Neronian holdings, Vespasian was brought up on an estate near Cosa to which he frequently returned (Suetonius, *Life of Vespasian* 2). There was a major reorganization of the port of Cosa which became dominated by a *villa marittima*, possibly in imperial ownership, dating from the Claudian period until the fifth century (Gazda and McCann 1987, 155-59; Ciampoltrini and Notini 1993). In the second century small rural settlements were rare, their numbers were down from a maximum of eighty-seven sites to only seventeen. This trend continues in the third to fourth century when the total of occupied sites is more than halved, despite a reoccupation of Cosa (Fentress *et al.* 2004, 68-69). Settefinestre is abandoned in the Severan Period and it seems likely that after this there was a further transformation in the economic regime with the few surviving villas developing into *latifundia*, large estates with an economy oriented towards pastoralism and a population living an estate centre that was previously a villa. A halving in the number of settlements would imply a doubling in the average size of estates; however, it is also possible that less land was exploited or that malaria may have become established in coastal areas (Fentress 2009). Unfortunately, no sites dating to this period have been excavated that might provide more detail about the nature of these late Roman settlements. In the Eastern part of the *Ager* the *statio* at *Ad Nonas* and two villages near the *via Aurelia* remain occupied, but we know nothing of their organisation or economic functioning. The number of occupied sites reduces further in the fifth century and it seems likely that the Visigothic invasion will have disrupted life along the *via*

Aurelia at least (Regoli 2002b). In the sixth century, there is evidence for settlement on very few of the villa sites and otherwise at only the *Portus Feniliae*, the *statio* and one village.

Further reading

For the excavations at Cosa the synthetic account is still Brown (1980), although this has been subject to reinterpretation (Fentress 2000; Dyson 2005; Bispham 2006). The original excavation reports should be the starting point for any detailed investigation of Cosa (Brown 1960; Brown *et al.* 1993; Bruno and Scott 1993, Fentress *et al.* 2004, for the full details of the stratigraphy see <http://press.umich.edu/webhome/cosa/home.html>). For the port of Cosa see McCann 1987. Many of the finds have also been well published: coins (Buttrey 1980); black gloss wares (Taylor 1957; Scott 2008); *terra sigillata* (Marabini Moevs 2006); coarsewares (Dyson 1976); thin walled wares (Marabini Moevs 1973 and 1980), lamps (Fitch and Goldman 1994), *amphorae* (Will 1987).

For field survey in the *Ager Cosanus* the fundamental publication is Carandini and Cambi eds 2002 along with preliminary accounts in Carandini ed. 1985a. The finds have not been published. Manacorda 1979 is the starting point for the epigraphy, though the inscriptions from Cosa itself are not yet published. For the Etruscan period sites and finds see Perkins 1999. For an analysis of the demography of the Albegna valley over time see Fentress 2009.