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The Impact of Roman Rule on the Urban System of Sicily

Luuk de Ligt

1 Introduction*

The principal aim of this paper is to study the gradual transformation of the urban system of Sicily which took place after the imposition of Roman rule in the second half of the third century BCE. The most recent study covering this topic is Roger Wilson's survey article which carries the ambitious title 'Changes in the pattern of urban settlement in Roman, Byzantine and Arab Sicily'.¹ Wilson's treatment can only be described as absolutely excellent, but more than thirty years have passed since its publication. In this paper I want to re-examine the evolution of Sicily's urban system in the light of new archaeological research carried out during the past three decades. My second goal is to provide an explanation, or explanations, for the striking realignments in the urban system of the island which can be observed between late-Classical times and the early third century CE.

2 Sicilian Cities in the Late Classical and Early Hellenistic Periods

In the final quarter of the fourth century BCE almost all regions of Sicily were dotted with cities (Fig. 8.1). The largest urban settlements of the island had been founded as Greek colonies. Of these colonial cities Syracuse had by far the largest walled area. In late Classical and early Hellenistic times the outer walls of this city enclosed no less than 1,600 hectares. Of course, the size of the built-up area, comprising public, sacred and private buildings, was much

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¹ Wilson 1985.

smaller. In the recent literature Drögemüller's estimate for the maximum size attained by the occupied area, 325 ha, is still accepted as broadly correct. While I have no quarrel with this figure, I would like to point out that Syracuse seems to have reached its greatest extent during the reign of Hiero II (270–215 BCE), when the urban districts of Acradina and Neapolis were expanded to areas previously occupied by extra-urban cemeteries. In the late fourth and early third centuries BCE Syracuse is likely to have occupied less than 325 ha.

The area enclosed by the wall of *Akragas* was 450 ha, roughly three and a half times smaller than that protected by the outer fortifications of Syracuse. However, since more than half of this area (c. 250 ha) appears to have been occupied, the built-up area of *Akragas* was only one third smaller than that of the largest city of late-Classical and early-Hellenistic Sicily. In 262 BCE or 261 BCE *Akragas* was captured by the Romans, who are said to have enslaved more than 25,000 of its inhabitants.⁴

Of the other coastal cities Camarina and Selinus were considerably smaller than Syracuse and Akragas but still impressive. Camarina had a walled area of 145 ha of which about 50 % (72 ha) might have been occupied. The walls of Selinus enclosed some 110 ha, of which about three quarters (80 ha) are thought to have been built over. To these Greek cities we should add the Punic port city of Lilybaeum. Existing estimates for the walled area of this city range from 77 ha to 80 ha, but based on the most recent reconstruction of the course followed by the Punic fortifications an estimate of c. 90 ha seems more realistic.

Camarina was destroyed by Dionysius I of Syracuse, but revived by Timoleon. In the 280s BCE the Mamertines of Messana destroyed the city. In 258 BCE it was captured by the Romans, who sold most of its inhabitants into slavery. Archaeological research carried out in the late 1990s has shown that the city quickly recovered from this severe blow and continued to flourish at least until the late third century BCE. Selinus also suffered heavily during the First Punic War. In around 250 BCE the Carthaginians razed the city to the ground and removed its population to Lilybaeum. Unlike Camarina, Selinus did not recover. Strabo includes it in his list of deserted cities. 10

² Drögemüller 1969: 113-114; Hansen 2006: 42.

³ Gentili 1956.

⁴ Diod. 23.9.1.

⁵ Muggia 1997: 97; cf. Mertens 2006: 193 and 351, Abb. 625.

⁶ Zuchtriegel 2011: 117.

⁷ Giglio 2006.

⁸ Diod. 23.1.4 and 23.9.5.

⁹ Mattioli 1995; di Stefano 2000–2001.

¹⁰ Diod. 24.1.1; Strabo 6.2.6.

In various publications Classical *Gela* is credited with a built-up area of about 105 hectares.¹¹ In reality the fifth-century city appears to have been much smaller. More than a century ago Paolo Orsi suggested that the Archaic wall enclosed the same area as the medieval wall circuit (25 ha) plus the acropolis (c. 20 ha). Excavations carried out in the area to the north of the Archaic city have shown that by the late fifth century the city had expanded northward to the area where the 1891 railway station would be located, increasing the size of the area occupied by the walled city and the northern suburb to about 60 ha.¹² Within this area the acropolis (c. 17 ha) does not seem to have contained any buildings other than the Doric temple, the *Athenaion* and a couple of *thesauroi*. These figures imply an estimate of only 45 ha for the built-up area of the Classical city.¹³

In 405 BCE *Gela* was destroyed by the Carthaginians but the city was rebuilt by Timoleon in 338 BCE. The fortifications of the re-founded city extended westward as far as Capo Soprano, enclosing large areas previously occupied by the necropoleis of the Archaic and Classical periods. The size of the area enclosed by the new city walls may be estimated as approximately 190 ha. ¹⁴ The area of the Archaic city was re-occupied, ¹⁵ and new residential quarters appeared on the western half of the plateau. The nucleus of these new quarters seems to have occupied an area of about 25 ha, but this figure rises to c. 40 ha if various less densely occupied areas are included. ¹⁶ In addition, a new residential

This estimate can be traced back to Orsi 1906: 11–12, who calculated the size of Classical *Gela* based on a length of 1,500 m. and a maximum width of 700 m. It is repeated in many later publications, including Bérard 1957: 232, Martin, Pelagatti, Vallet and Voza 1980: 561, Coarelli and Torelli 1984: 113–158, and Muggia 1997: 76.

¹² Northern suburb: Fiorentini 1994.

The archaeological evidence does not support the high estimate of 200 ha for Classical *Gela* provided by Hansen and Nielsen 2004: 194, which might have been inspired by Beloch 1889: 66, Orsi 1906: 12, or Bérard 1957: 232. Beloch's estimate was based on map XII at the end of Holm 1871, which assumes that the Classical wall enclosed the entire area between the acropolis and Capo Soprano. Holm's reconstruction is roughly correct for the period between 338 BCE and 282 BCE.

For the course of the Timoleontic wall see Orlandini 1956: Fig. 3; id. 1957: map on pp. 50–51.

¹⁵ Area of Archaic city re-occupied: Orlandini 1956: 167–168. Adamesteanu 1960 thinks that the area of the Classical *proasteion* was enclosed by Timoleontic wall, but the excavations carried out in the area of the old railway station have revealed no signs of re-occupation after 405BCE (Fiorentini 2002: 147–156; cf. Orsi 1906: 562).

¹⁶ According to Orlandini 1956: 173, and id. 1957: 166, these quarters occupied a vast area between Capo Soprano, Piano Notaro and the modern Piazza San Giacomo, but he also regarded the zone between the modern Via Palazzi, Via Scavone/Viale Indipendenza and Via Manzoni (c. 15 ha) as the principal habitational nucleus (id. 1956: 166–167). Panvini's discussion of the finds from Via Candioto, Via Morselli and Via Meli (Panvini 1996: 106–

quarter (occupying less than 1ha) appeared on the northern terraces of the acropolis. All in all, the built-up area of the Timoleontic city might have been as large as 65 ha. After Agathocles had taken possession of the city and killed 4,000 of its citizens in 311 BCE, the residential quarter on the acropolis seems to have been abandoned. To judge from the large numbers of objects belonging to the period 310–287 which have come to light on the western part of the plateau, the Timoleontic quarters of Capo Soprano and Piano Notaro now became the most vibrant parts of the city. In the area of the Archaic city occupation also continued, though perhaps on a reduced level.¹⁷

Sometime between 287 BCE and 282 BCE the city of *Gela* was completely wiped off the map. It is not entirely clear how this happened. According to one theory, the Mamertines from *Messana* destroyed the city, after which Phintias, the tyrant of *Akragas*, removed the remaining inhabitants to the new city of *Phintias* (Licata). Another possibility is that the Mamertines destroyed the city after its population had been deported. For the purposes of this paper the only conclusion that matters is that from the late 280s onwards *Phintias* emerged as a new city on the south coast of Sicily. Some two hundred years after its foundation this city appears in the Verrine orations as a port from which tax grain was exported, but as late as the nineteenth century Licata still lacked a good harbour. Even at the height of its development Hellenistic *Phintias* might have occupied no more than 30 ha. 21

Other large or medium-sized coastal cities included *Himera* (with a built-up area 82 ha if the lower city is included, but only 32 ha if it is excluded),²² *Messana* (inhabited area 60 ha in the fifth century),²³ *Katane* (walled area 60–65 ha),²⁴ *Heraclea Minoa* (walled area 60–70 ha during the fifth century, but

¹⁰⁷⁾ suggests that the densely occupied zone was considerably larger than this. In the area of Capo Soprano Adamesteanu (1960) posits the existence of at least four 'decumani' separated from each other by a distance of 212 m., implying a minimum width of 650–700 m. for the Hellenistic quarter as a whole. My estimate of 40 ha is based on the map in Orlandini 1957: 50–51, on the assumption that occupation to the east of the modern Via Cartesio and Via Butera was sporadic (e.g. Orsi 1906: 272; Congiu 2015: 529).

¹⁷ Diod. 19.107.3-4. Eastern quarter abandoned: Orlandini 1956: 173.

¹⁸ Orlandini 1957: 170–171, surveys the exiguous evidence for continued occupation during the third century BCE.

¹⁹ Diod. 22.2.2 and 23.1.4. Cf. Panvini 1996: 102; Zambon 2004: 464.

²⁰ Cic. 2 Verr. 3.192; Purdy 1840: 172.

²¹ La Torre 2006: 84, Fig. 2.

²² Mertens 2006: 191-192.

²³ Fischer-Hansen et al. 2004: 235: 50-60 ha.

Tortorici 2008: 118 and 122, Fig. 35, estimates the size of the walled area as only 34 ha; but see Frasca 2015: 169, for a higher (and more realistic) estimate of 60–65 ha.

walled area 30–35 ha and built-up area c. 20 ha after its refoundation by Timoleon), 25 Megara Hyblaea (61 ha, of which 25 ha might have been occupied) 26 and Naxos (inhabited area 35 ha). 27 In Carthaginian Sicily Panormus had a walled area of about 36 ha. 28

Of these cities *Himera* was annihilated by the Carthaginians in 409 BCE. A few years later the survivors were resettled at nearby *Thermae Himeraeae*, on the opposite bank of the river *Himera*.²⁹ *Naxos* was destroyed by Dionysius I in 403 BCE. According to Diodorus, the surviving Naxians were resettled in *Tauromenion* in 358 BCE.³⁰ There is no reason to reject this story, but excavations carried out at the site of ancient *Naxos* have revealed that a small part of the classical city continued to be inhabited.³¹ *Messana* was destroyed by the Carthaginians in 396 BCE and rebuilt on a smaller scale by Dionysius I. The wall circuit of the new city might have enclosed an area of approximately 25 ha.³² *Megara Hyblaea* was destroyed in 483 BCE, re-built by Timoleon and again destroyed by the Romans during the Second Punic War.³³ To judge from the archaeological evidence available at present, the new *polis* of *Tauromenion* did not take off before the third quarter of the third century BCE.³⁴ In around 300 BCE it must have occupied less than 20 ha.

During the Classical and early Hellenistic periods the interior districts of Sicily were also dotted with cities. Some of these had been founded as Greek colonies or sub-colonies, but others were Hellenised settlements of indigenous origin. On average the cities and towns of the interior districts were smaller than their coastal counterparts, but the former group includes a significant number of cities which occupied more than 20 hectares. Examples include *Murgantia* (Morgantina), with a walled area of 78 ha (of which c. 57 ha

²⁵ Fischer-Hansen et al. 2004: 197; Hansen 2006: 106–107; and map 6 at the end of Gabba and Vallet 1980.

²⁶ Hansen 2006: 42.

²⁷ Fischer-Hansen et al. 2004: 219; cf. Mertens 2006: 40: 40 ha. The line followed by the northern section of the city wall remains to be clarified.

²⁸ Belvedere 1987.

²⁹ Diod. 13.61-62; Cic. 2 Verr. 2.86.

³⁰ Diod. 14.59 and 16.7. I have assumed that *Tauromenion* became a self-governing *polis* around this date (cf. Fischer-Hansen et al. 2004: 231), but the dearth of fourth-century material suggests the late Classical city was considerably smaller than its Roman successor.

³¹ Lentini 2001: 13-16.

³² Diod. 14.54-58. Cf. Wilson 1990: Fig. 134.3.

³³ Livy 24.35.

³⁴ Campagna 2012: 169.

might have been built up),³⁵ *Leontini* (walled area 60 ha),³⁶ *Kasmenai* (walled area 60 ha, built-up area at least 45 ha),³⁷ *Segesta* (walled area 55 ha), *Hippana* (walled area 30–35 ha, built-up area 25 ha),³⁸ *Iaetas* (walled area 40 ha), *Hadranum* (walled area 60 ha of which c. 30 ha were occupied), *Entella* (walled area 40 ha of which 27 ha were occupied),³⁹ *Acrae* (walled and inhabited area 35 ha),⁴⁰ and *Assorus* (walled and inhabited area 30 ha?).⁴¹ Of these cities *Kasmenai* is thought to have been abandoned in the course of the fourth century BCE.⁴²

In addition to these large and medium-sized cities, the inland districts contained large numbers of fortified hill-top settlements. Some of these settlements had been founded as garrison settlements (*phrouria*) by various tyrants of the Greek cities of the coastal districts with the aim of controlling the peripheral parts of their territories, but at least some of these military settlements also functioned as civic communities. Therefore it is almost impossible to draw a clear boundary line between *phrouria* and dependent *poleis*.

It is even more difficult to classify the hill-top settlements of the regions inhabited by the *Siculi*, the *Sicani* and the *Elymi*. While in the territories of at least some Greek *poleis* a distinction can be discerned between the dominant city, on the one hand, and dependent *poleis* or *phrouria*, on the other, many fortified hill-top settlements of indigenous origin occupied areas of between 5 ha and 15 ha. Under these circumstances it is generally impossible to trace hierarchical relationships between settlements. Without secure evidence of such relationships we cannot rule out the possibility that the dense settlement systems which can be reconstructed for some parts of inland Sicily consisted of a series of autonomous units rather than of a small number of dominant centres exercising control over multiple 'subordinate' agglomerations and their territories.

³⁵ Raffiotta 1996: 73: built-up area 50 ha; Stone 2014: 12: 57 ha. Cf. Lee 2014: 10: 39 ha of domestic space.

According to Frasca 2012: 176 *Leontini* occupied c. 60 ha between the early sixth and midthird centuries BCE. Felici and Buscemi Felici 2004: 42 provide an estimate of c. 70 ha for the area occupied by the city at the height of its development. The estimate of 40 ha provided by Fischer-Hansen et al. 2004: 210 seems too low.

³⁷ Hansen 2006: 42.

³⁸ Vassallo 2012: 210.

³⁹ Size of walled area: Nenci 1996: 129; built-up area: Vaggioli 2001: 61.

Fischer-Hansen et al. 2004: 190. As they point out, *Acrae* seems to have been founded as a military settlement, but it might simultaneously have been a dependent *polis* in the territory of Syracuse.

⁴¹ Wilson 1990: 149.

⁴² Collura 2012.

Since many of the hill-top settlements of the landlocked districts had less than 10 hectares of built-up space and also because farming seems to have been the primary occupation of a large proportion of their populations, it does not come as a surprise to find them described as 'fortified villages' ('villaggi fortificati') rather than as 'towns'. 43 However, as the examples of *Iaetas* and *Hippana* show, some indigenous hill-top settlements had impressive public buildings, such as monumentalised agorai and theatres, and it seems a safe bet that future research will reveal at least some further examples.⁴⁴ In this context it should be remembered that Cicero refers to the *palaestra* of the small town (*oppidum* tenue) of Bidis in eastern Sicily.⁴⁵ More generally, from an archaeological point of view many of the fortified hill-top settlements of the land-locked districts of Classical and early-Hellenistic Sicily look similar to the small poleis of Arcadia and other parts of mainland Greece. While some scholars classify the small fortified mountain sites of Classical Greece as 'villages with a small fortified citadel', others see them as representing a specifically Greek form of urbanism in which a large proportion of the farming population lived in 'small towns'. 46

In his account of the First Punic War Diodorus reports that 67 'cities' (*poleis*) sent ambassadors to deliver their communities to the Romans after the consuls of 263 BCE had captured *Hadranum*. ⁴⁷ Since the numerous cities which remained under Carthaginian control as well as all cities which were subject to King Hiero II of Syracuse are excluded from this tally, this passage may be interpreted as pointing to the existence of a large number of 'cities' in mid-third century Sicily. Unfortunately, there is no way of telling which types of settlement Diodorus, or his source, had in mind.

Another important literary clue is Livy's assertion that following the fall of *Akragas/Agrigentum* in 210 BCE 66 *oppida* fell into Roman hands after they had been betrayed or captured or had surrendered themselves (Livy 26.40.14). As Scramuzza pointed out long ago, this figure does not include *Messana*, *Enna*, *Lilybaeum*, *Drepanum*, *Tauromenium*, *Netum* or the recently captured cities of Syracuse and *Akragas*.⁴⁸ Therefore it seems reasonable to infer that late-third-

⁴³ Muggia 1997: 102.

In an article on the *agorai* and *fora* of Hellenistic and Roman Sicily, Roger Wilson suggests there might have been as many as 155 cities (*poleis*) and an equal number of *agorai* on the island at the start of the Hellenistic period. See Wilson 2012: 245, based on id. 2000b.

⁴⁵ Cic. 2 Verr. 2.53.

Cf. Maher 2017: 32, on the Arcadian mountain sites of Teuthis, Nestane and Halous, which feature among the *poleis* of Classical Arcadia (Nielsen 2004: 512, 523 and 533), but which have also been described as 'villages with a small fortified citadel'.

⁴⁷ Diod. 23.4.1.

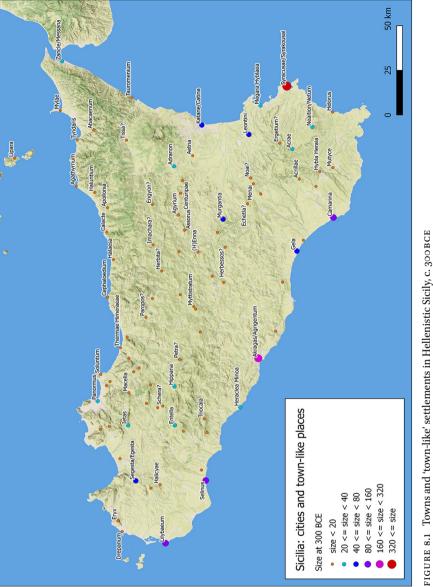
⁴⁸ Scramuzza 1937: 328.

century Sicily contained at least 74 (66+8) 'cities' or 'towns'. However, since the term *oppida* may refer to all kinds of settlements, including fortified villages, even this cautious conclusion is not altogether unproblematic.

The only possible conclusion is that neither the literary sources nor the archaeological data currently available for the fortified hill-top settlements of the interior districts of early-Hellenistic Sicily allow us to draw a clear dividing line between 'hill-top towns' and 'fortified villages'. For this reason my reconstruction of the 'urban system' of Sicily in around 300BCE takes in *all* fortified hill-top settlements which have produced evidence of occupation in the final quarter of the fourth century BCE (Fig. 8.1).⁴⁹ I have no doubt that future research will reveal some of these settlements to have been undistinguished places with little (or no) monumental architecture, few traces of elite dwellings and limited evidence of occupational diversity. It bears repeating, however, that many of the small *poleis* of Archaic and Classical Greece also appear to have been thoroughly agrarian. In that sense the wide-ranging approach adopted in this section does not give a misleading picture of 'urbanism' in Sicily at the end of the fourth century BCE.

In order to convey an impression of the quantitative properties of the urban system of early-Hellenistic Sicily, all cities and fortified hill-top settlements which existed in around 300 BCE have been assigned to six different size brackets (< 20 ha, 20–40 ha, 40–80 ha, 80–160 ha, 160–320 ha and > 320 ha) based on the size of their built-up areas. Many publications on the cities of Classical or early-Hellenistic Sicily provide separate figures for the sizes of walled and built-up areas, or contain maps from which rough estimates can be derived. In a

Most of the city locations shown on this map are those of the Barrington Atlas, but Noae 49 has been tentatively placed at Monte Catalfaro (despite its proximity to Mineo), mainly because the settlement of Monte Iudica no longer existed when the theorodokoi list of c. 230-210 BCE was drawn up. In order to give an impression of the number of towns and 'town-like' places, a handful of settlements which cannot be located precisely have been assigned to one of the more plausible locations suggested by the existing literature, without any claim to novel insights or a high degree of reliability. The settlements in question are: Echetla (in the border area between Leontini and Camarina), Ergetium (Ferla?), Herbita (Monte Alburchia?), Paropus (Monte Riparato di Caltavuturo?), Petra (Castronovo di Sicilia?) and Schera (Montagna Vecchia di Corleone?). Bidis has been placed at Poggio Bidini and Aetna at Paternò, on the assumption that Pliny's Hyblenses lived at Hybla Heraea. For references see Appendix. Unfortunately, Fig. 1 in Bintliff 2018 conveys a false impression of my reconstruction of the network of towns and 'town-like' settlements in early-Hellenistic Sicily. Bintliff's map is based on the concept of 'self-governing town'. While this concept works reasonably well for the first 250 years of the Roman-imperial period, its usefulness as a tool for understanding the settlement system of Hellenistic Sicily is highly doubtful.



considerable number of cases only the size of the walled area can be estimated. In these cases it has been assumed that 70% of the walled area was covered by domestic or public buildings, except in the case of cities with walled areas in the 120-500 ha range, where I operate with a percentage of 50%, based on the well-investigated cases of *Camarina* and *Akragas*. 50%

It appears clearly from the map that the largest cities of early-Hellenistic Sicily were situated on the central south coast and on the south-east coast. Eight medium-sized cities (40–80 ha) were also situated on the coast or in the fertile areas to the south and south-west of Etna. The vast majority of those cities situated along the eastern part of the north coast or in the interior districts of central or western Sicily had less than 40 ha of built-up space, but since such cities were numerous, the urban system of the island as a whole can be described as quite dense, with inter-city distances rarely exceeding 25 km.

3 The Cities of Sicily under Roman Rule: Definitional Problems

Both during the Republic and in the imperial period the Roman administration was based on a clear distinction between 'self-governing communities', which had their own territories and played an important role in the collection of direct taxation, and 'subordinate communities' which were situated in the administrative territories of other communities.

If the label 'cities' is reserved for those settlements of Roman Sicily which were central places of self-governing communities (on the assumption that these places were most likely to display urban features, such as monumental buildings and elite houses), the best starting point for an attempt to estimate the total number of Sicilian cities is a passage from Cicero's Second Verrine Oration. Here we are told that each Sicilian city elected two censors for the purpose of assessing municipal taxation rates, and that the total number of censors stood at 130.⁵¹ From this it follows that in the 70s BCE censors were elected in 65 Sicilian communities. Since the provincial governor did not have authority

In his book on the demography of the Classical Greek world, Hansen (2006: 46) assumes that in *poleis* belonging to the 10–150 ha bracket about half of the intramural space was occupied by domestic buildings. While this assumption might be broadly valid for cities belonging to the 120–150 ha bracket, the examples of Selinus and various other Sicilian cities suggest a higher proportion of built-up space for many cities occupying between 10 ha and 120 ha.

⁵¹ Cic. 2 Verr. 2.137.

over the internal administration of the three *civitates foederatae* of *Messana*, *Tauromenium* and *Netum*, the actual number of self-governing communities must have stood at 68^{52}

Various Sicilian cities were wiped out during the third and second centuries BCE, and it might be inferred from this that this entailed the disappearance of at least some self-governing communities. There is, however, clear evidence that this was not always the case. One of the Sicilian communities mentioned by Cicero is that of the *Gelenses* (2 *Verr.* 3.103). This shows that the *Gelenses* carried on as a self-governing community after the destruction of *Gela*. Therefore we can be certain that late-Republican Sicily contained fewer than 68 self-governing communities which contained a recognisably urban centre.⁵³

During the early decades of the Principate the number of self-governing communities in Sicily appears to have been approximately the same as it had been in the late 70s BCE. Based on an Augustan source Pliny the Elder reports that the island (or the *provincia Siciliae* including Lipari and various other islands?) had five colonies and 63 other 'cities or communities' (*urbes aut civitates*), implying a total of 68 self-governing communities.⁵⁴ However, an inspection of his survey of the settlements and communities of the coastal and inland districts reveals that the figure of 68 is obtained only if the coastal settlements of *Portus Ulixis* and *Portus Naustathmus* are included. These two places clearly were secondary settlements rather than central places of self-governing communities.⁵⁵

Some Sicilian communities referred to by Cicero do not appear in Pliny's list and are thought to have been downgraded to the status of subordinate communities. Examples include *Amestratus* (2 *Verr.* 3.88), which was a *vicus* of *Halaesa* during the Empire, *Capitium* (2 *Verr.* 3.103), which is believed to have become

⁵² Beloch 1889: 71-72. Cf. Prag 2014: 189.

My criteria for what constitutes a 'recognisably urban centre' include evidence for the erection or maintenance of public buildings, the presence of at least some elite dwellings and evidence of occupational diversity.

⁵⁴ Plin. NH 3.88.

According to Beloch 1889: 73–74, Pliny's 68 Sicilian 'cities and communities' must have included *Abacaenum*, *Amestratus*, *Apollonia* and *Capitium* as well as the four insular cities of *Cossyra*, *Gaulos*, *Lipara* and *Melita*. He goes on to argue that the figure of 68 can be salvaged by eliminating *Portus Ulixis*, *Portus Naustathmus*, *Camarina*, *Mylae*, the *Naxii*, the *Selinuntii*, the *Zanclaei*, and the *Gelani* or the *Phintienses*. Finley 1979: 124 suggests that Pliny's 68 Sicilian cities and communities must have included the islands of Malta and Lipari. However, while Pliny mentions the *oppidum civium Romanorum* of *Lipara* in his survey of the islands, Melita appears only as an *insula*, alongside *Gaulos*, *Cossyra* and various smaller islands. In my view, we cannot rule out the possibility that Pliny did not find the figure of 68 in his source but calculated it himself.

a subordinate settlement within the territory of either *Engyum* (Troina) or *Imachara* (Vaccarra?), *Helorus* (2 *Verr.* 3.103), which became a village on the road between Syracuse and the southern coast, and perhaps *Apollonia* (San Fratello; 2 *Verr.* 3.103), which might have fallen under the control of *Haluntium*. To this list we may add *Abacaenum/Abacaena* (Casale di Tripi), which appears neither in Cicero nor in Pliny. The *Abacaenini* struck coins in the fifth and fourth centuries BCE, and the size of the area occupied by Hellenistic *Abacaenum* has been estimated as approximately 12 ha. In the early-imperial period the settlement zone seems to have shrunk to about 5 ha, but archaeological research has brought to light remains of an *agora/forum* and of at least one monumental building. The latter has been dated to the second century CE. The town's failure to make it onto Pliny's list has been interpreted as an indication that it was incorporated as a secondary settlement within the territory of the Augustan colony of *Tyndaris*.56

Pliny's use of the phrase 'cities or communities' strongly suggests that his list (like that of Cicero) includes at least some self-governing communities which did not have an urban centre, and a close examination of his list confirms this inference as correct. Examples include the *Gelani* (corresponding to Cicero's *Gelenses*), the *Selinuntii*, who continued to inhabit the territory of *Selinus* after the destruction of the city, and the *Naxii*, who must have lived in the territory of the downgraded city of *Naxos*.⁵⁷ Some of the communities which feature in Pliny, such as the *Symaethii* of eastern Sicily, may never have had a recognisably urban centre, and at least one community, that of the *Zanclaei*, has been identified as a Greek community living in the territory of *Messana* while remaining separate from the local citizen body of that city.⁵⁸

While at least some of the self-governing communities listed by Pliny were demonstrably non-urban, we must also envisage the possibility that at least some agglomerations which technically were 'subordinate settlements' within the territories of self-governing cities might have displayed at least some 'urban' features.

As various scholars have pointed out, the third-to-fifth centuries CE witnessed the appearance of large rural agglomerations in various parts of Sicily. Of course, the best known example is *Philosophiana*. The excavations carried

For *Amestratus, Capitium* and *Helorus*, see Wilson 1990: 149 and 159; for *Apollonia*, see Bonanno and Perrotta 2008: 82; for *Abacaenum*, see La Torre 2009, Bacci et al. 2009. Wilson's estimate of 30 ha for *Abacaenum* is far too high.

⁵⁷ Plin. NH 3.91.

⁵⁸ Manganaro 1980: 461 n. 225. Ptolemy 3.4.13 lists Dymethus among the land-locked 'cities' of eastern Sicily.

out at this site have revealed the presence of a peristyle *domus* and a bath complex of the early first century CE. However, the evidence collected during recent survey campaigns leave no doubt that *Philosophiana/Sofiana* remained relatively small (< 10 ha) until the fourth century CE, when it expanded to 21 hectares.⁵⁹ Traces of other large rural settlements have been detected in other parts of the island, for instance at Vito Soldano, which has been credited with a built-up area of no less than 40 ha, in the hinterland of Mazara del Vallo, where the site of San Miceli reached 19.5 ha in the sixth century CE, and in the Monti Sicani, where the two sites of Chinesi and Cianciania occupied areas of 16.6 ha and 9.5 ha respectively. Chinesi appeared as a completely new settlement in the late first century BCE and grew into a large agglomeration in the first century CE. Cianciania already existed in Hellenistic times, but did not develop into a large *vicus* until the first century CE. The discovery of a bronze statue and of a mosaic floor suggest the presence of at least some well furnished dwellings.⁶⁰

It seems reasonable to suppose that secondary settlements of this size performed certain central-place functions, for instance as market-places for the inhabitants of the surrounding districts. However, since it seems to be generally agreed that most of the large *vici*, or 'agro-towns', of Roman Sicily peaked between the early-fourth and mid-sixth centuries CE, there is no need to discuss them extensively in a discussion which aims to trace developments before CE 200.

The only 'secondary agglomeration' of early-imperial Sicily which certainly deserves to be called a 'town' from an archaeological point of view is the harbour settlement of *Mazara*. Administratively, *Mazara* was a subordinate settlement in the territory of *Lilybaeum*, but archaeological research has revealed traces of port facilities at the mouth of the canal harbour, column shafts and capitals of marble and remains of a fourth-century house which had at least four mosaic floors. In addition, many inscriptions have been recovered. If the Roman settlement occupied approximately the same area as the walled town of the eleventh century, it would have measured c. 22 hectares. ⁶² Based on the

⁵⁹ See, for instance, Vaccaro 2012.

⁶⁰ Vito Soldano: Giaccone 2012; San Miceli: Mosca 2015; Chinesi and Cianciania: Klug 2017; ead. 2018: 79; Bergemann 2018: 38. Cf. Bonacini 2016: 45 for traces of a Roman bath complex at Caltagirone, and Burgio 2012 on the late-Roman settlement of Cignana (near Palma di Montechiaro), which occupied more than 10 ha.

⁶¹ Cf. Bintliff 2018: 412-413.

⁶² Wilson 1990: 157–159; Giglio 1998, Mosca 2014 and 2015. Wilson 1985: 336 suggests that the Roman settlement at present-day Sampieri (near Scicli) might have been another town-like settlement, but the evidence from this site is too meagre to warrant any firm

evidence currently available we cannot exclude the possibility that *Mazara* peaked in the fourth century CE, but even if this was the case, it must already have been substantial by the mid-second century CE.

4 Urban Decline, Continuity and Expansion between 300 BCE and 200 CE

During the twentieth and early twenty-first centuries widely diverging assessments of the vitality of urban life in Roman Sicily have been defended. The main reason for this is that modern scholarship has been, and remains, deeply divided over the economic, demographic, social and cultural impact of the imposition of Roman rule on Sicily. ⁶³ Important issues in this debate include the supposedly negative effects of Roman taxation, the relative importance of absentee landownership, the extent to which local elites benefited from new commercial opportunities, and the importance of rural slavery. I am keenly aware that the long-term evolution of the urban system of Sicily cannot be understood without taking into account changes in the political, administrative, economic and social contexts in which the urban and rural populations of the island operated. At the same time I feel that at least some publications do not sufficiently distinguish between the short-term impact of Roman rule and its long-term effects, or between the trajectories of particular cities and the long-term evolution of the urban system of Sicily as a whole.

One way of studying the fate of the cities of the island in the Hellenistic and early-imperial periods is to look at archaeological evidence of public or private building activities or at epigraphic evidence illuminating the intensity of civic life. This is the approach used by Jonathan Prag in a recent article on 'cities and civic life in late-Hellenistic Roman Sicily'. From his collection it appears that stone theatres were built at *Hippana* in the late fourth century and in *Iaetas* in the third century. In the course of the third century BCE other Sicilian cities, such as *Murgantia*, *Megara* and *Camarina*, developed or consolidated grand urban spaces on a monumental scale. In the light of this evidence it seems justified to speak of a widespread 'process of monumentalisation' which took off during this period.⁶⁴

conclusion on the size or chronology of this secondary agglomeration. Cf. Militello 2008: 191-192 and 205-207.

⁶³ For a good survey of this debate see Prag 2009. For an optimistic assessment of late-Republican Sicily, see Wilson 2000a.

⁶⁴ Prag 2014.

As pointed out by Prag, this wave of public building seems to have continued well into the second century BCE, particularly in the cities of northern and eastern Sicily, with multi-storey *skenai* being added to various existing theatres and winged *stoai* being erected in *Segesta* and *Soluntum*. For the first century BCE the archaeological record is much more meagre, but an early-first-century inscription from *Halaesa* refers to the existence of a basilica. In addition, some twenty inscriptions containing civic decrees of the third to first centuries BCE have been found in various Sicilian cities, and many more decrees are referred to in Cicero's Verrine orations.⁶⁵

It is impossible not to agree with Prag's conclusion that the combined archaeological and epigraphic evidence supports a picture of continued vitality in a significant number of Sicilian cities in the third and second centuries BCE. At the same time we should be careful to distinguish between successive periods and remain alert to the possibility that developments in different Sicilian cities may have followed completely diverging trajectories. As Prag admits, some of the archaeological evidence of public building activities belongs to the late fourth or early-third century BCE. This evidence cannot be used to assess the fate of the cities in question during or after the First Punic War. Similarly, the indisputable fact that many Sicilian cities continued to issue civic decrees well into the first century BCE does not prove that civic life throughout the island remained as vibrant as it had been in late Classical or early Hellenistic times

In my view the only way to obtain a clear view of the long-term impact of Roman rule on the cities of Sicily is by looking at continuities or discontinuities at the level of the urban system as a whole and during a period spanning four or five centuries. In accordance with this methodological premise I proceed to trace the evolution of Sicily's urban system by comparing the system which existed at the start of the Hellenistic period with that which had emerged by the end of the second century $CE.^{66}$ In other words, we will be looking at changes in the urban system which took place in a period of no less than five centuries.

⁶⁵ Prag 2014: 176.

More than 25 years after publication Wilson 1990: 143–188, remains the best survey of the urban system of Roman Sicily. The brief discussion by Andrew Wilson (Wilson 2011: 183), inexplicably conflates the Classical and early-imperial periods, resulting in wildly inflated estimates not only for Syracuse and *Agrigentum*, but also for *Gela*, which was abandoned in Roman times. While avoiding some of Wilson's mistakes, Hanson 2016: 748–762, uses Classical size estimates for Syracuse and *Agrigentum* and various other Sicilian cities, supplementing these with estimates derived from maps representing city walls, built-up areas or street grids of early-imperial date. Unfortunately, most of these estimates have not been checked against the archaeological literature of the past twenty-five years. Hanson's cat-

Unlike my survey of the urban system of early-Hellenistic Sicily, my discussion of the cities of Roman Sicily will focus mainly on those Sicilian settlements which are known to have been administrative centres of self-governing communities at any time between 100 BCE and 200 CE. As has been explained in the previous section, my justification for adopting this approach is that, with the exception of Mazara, none of the secondary settlements which existed on the island at the end of the second century CE appears to have been recognisably urban. 67

The inevitable starting point of our survey of the self-governing cities of Sicily is Syracuse. As we have explained, this city might have occupied some 325 hectares at the start of the Second Punic War. In 215 BCE Syracuse went over to the Carthaginian side, after which it was captured by the Roman general Marcellus in 212 BCE. This event had a big impact on the city. Cicero reports that Marcellus forbade any Syracusans from residing in *Ortygia*, because this part of the city could easily be defended. This prohibition was still in force at the time of the Verrine orations. ⁶⁸ Interestingly, Strabo reports that when Augustus sent a colony to Syracuse in 21 BCE 'only the part that was adjacent to the island of *Ortygia* which had a sufficient circuit to make a notable city' was restored. It looks therefore that even in the early Augustan period *Ortygia* was not used for habitation, except perhaps by Roman administrators. ⁶⁹

From the early sixth century BCE *Ortygia* had been home to a large temple of Apollo, and in the first half of the fifth century a temple of Athena was erected in this part of the city. Between 200 BCE and 300 CE both these temples seem to have been kept in good repair. We also happen to know that Roman baths were erected on *Ortygia*.⁷⁰ These archaeological clues are compatible with Strabo's report if *Ortygia* remained in use as a public and sacred area.

In the mainland part of the city the area north of the great *decumanus* running east and west from the modern Piazza della Vittoria appears to have been abandoned. On this basis Wilson has suggested that Syracuse shrank to about 280 ha during the first centuries of Roman rule, but his map of the Roman city shows an area of only 245 ha, if the entire *Ortygia* quarter is included.⁷¹ If two

alogue of monumental buildings is generally useful, but contains several buildings for whose existence there is no reliable evidence, such as an amphitheatre at *Netum* (cf. Orsi 1897: 70–71).

⁶⁷ For the criteria on which this assessment is based, see footnote 54.

⁶⁸ Cic. 2 Verr. 5.84.

⁶⁹ Strabo 6.2.4.

⁷⁰ Wilson 1990: 162.

Wilson 1990: Fig. 134.1, confirmed by the thorough discussion in Piazza 2009.

thirds of *Ortygia* (55 ha out of 80 ha)⁷² had been occupied by domestic quarters in Classical and early-Hellenistic times, and if little habitation (e.g. 10 ha) remained on *Ortygia*, the aggregate area occupied by public buildings or residential quarters would have shrunk to approximately 200 ha. It is difficult to avoid the conclusion that Roman Syracuse had fewer inhabitants than the city of the late third century BCE.⁷³ Yet early-imperial Syracuse remained by far the largest city of Roman Sicily.

Akragas, now renamed Agrigentum, experienced a more drastic contraction of its built-up area. In his 1990 monograph Wilson suggested an estimate of between 80 ha and 100 ha for the area occupied by the Roman city, but this was little more than a guess. Thanks to a series of survey campaigns directed by Oscar Belvedere and Aurelio Burgio, we now are in a much better position to assess Agrigentum's development. From their excellent discussion it appears that Wilson's guesstimate was in the right ball park and that the Roman city occupied an area of c. 100 ha. This means that the built-up area of Roman Agrigentum was between 2.5 and 3 times smaller than that of late-Classical and early-Hellenistic Akragas.

As has already been noted, some of the large cities of Classical Sicily were destroyed in the fifth to third centuries BCE, and some of these cities never recovered. While the appearance of the *Gelani* on Pliny's list is a sure sign that the territory of *Gela* continued to be inhabited, it does not imply the recovery of the city. Finilarly, the main settlement of the *Selinuntii* who feature among Pliny's Sicilian communities appears to have been the small settlement of *Thermae Selinuntinae* (Sciacca) rather than the old city of *Selinus*. Pliny also refers

Recent estimates for *Ortygia* vary from 40 ha to 50 ha. See, for instance, Cerchiai, Janelli and Longo 2002: 205: 40 ha; Drögemüller 1969: 53, and Evans 2009: 9: 50 ha. Nowadays *Ortygia* occupies an area of c. 55 ha, but it was much larger in Antiquity. On Wilson's map it occupies an area of about 80 ha.

Cf. Basile 2012: 216: 'Dalla conquista romana in poi, la città, pur vivendo ancora momenti di prosperità, di fatto contrae il suo abitato, non raggiungendo mai più l'estensione precedente'. In view of the clear evidence of urban shrinkage, it is difficult to understand why Andrew Wilson (Wilson 2011: 183) credits Roman Syracuse with no fewer than 90,000 inhabitants.

⁷⁴ Wilson 1990: 170.

⁷⁵ Belvedere and Burgio 2012: 61, Fig. 41. Cf. Bordonaro 2012: 137: 'In età romana Agrigento subisce una notavole contrazione'.

In principle, Pliny's *Gelani* might be identified as the inhabitants of *Phintias* and its territory, but this interpretation sits uneasily with the fact that the *Phintienses* also feature on Pliny's list.

⁷⁷ Andrew Wilson (Wilson 2011:183) is clearly wrong in classifying Selinus as one of the 'major cities' of Roman Sicily.

to the community of the *Naxii*, whose city had been destroyed at the end of the fifth century BCE. As we have seen, a small part of the classical city continued to be inhabited in Hellenistic times. In the early-imperial period, however, a new settlement appeared along the road between Catania and *Messana*. In all likelihood this became the new central place of the *Naxii*.⁷⁸

Some coastal cities which had survived the wars of the fifth-to-third centuries more or less intact, or had recovered from total or partial destruction, appear to have gone into decline at various moments between the late second and late first centuries BCE. Archaeological research carried out around the *agora* of *Camarina* suggests that the large houses which were discovered in this area were not modified or repaired after the first century BCE. This finding is in line with the chronology of the coins discovered in the *agora*, which points to a notable downturn in commercial activity in the first half of the first century BCE. Although significant amounts of ceramic evidence belonging to the late first century BCE or the first decades of the first century CE have been identified at Camarina, the archaeological record as a whole confirms Wilson's judgment that the city was in its death-throes in the Augustan period.⁷⁹

Two other cities on the south coast of Sicily which seem to have declined in the first century BCE are *Phintias* (Licata) and *Heraclea Minoa*. During its heyday in the third century BCE *Phintias* might have occupied an area of approximately 30 ha, but recent excavations carried out on the southern slopes of the Monte Sant'Angelo have revealed the remains of Hellenistic houses which were abandoned in the second half of the first century BCE. As pointed out by La Torre, nothing is known about the development of the public areas of the city or about those residential quarters which must have been situated at the foot of the hill and in the vicinity of the harbour. Nonetheless the abandonment of the residential quarter of Monte Sant'Angelo prompted him to suggest that *Phintias* experienced a severe contraction immediately before and during the Augustan period. It seems significant that Strabo does not refer to *Phintias* in his survey of Roman Sicily.

Some 60 km to the west of *Phintias* the coastal city of *Heraclea Minoa* seems to have gone into decline from the late second century BCE onward. As noted above, the size of the walled area of *Heraclea* had already been reduced to 30 or 35 ha in the fourth century BCE. The city's theatre was destroyed in the third century BCE and never rebuilt. After the period of the First Servile War, small

⁷⁸ Lentini 2001: 23-31.

⁷⁹ Wilson 1990: 37. Note that the *oppidum Camarina* features on Pliny's list of Sicilian cities and communities (*NH* 3.89).

⁸⁰ La Torre 2008: 8. Cf. Amato 2012: 312.

houses and workshops were built on the ruins of the theatre, but large parts of the residential areas of the fourth and early third centuries remained unoccupied. ⁸¹ Habitation seems to have ceased altogether between 50 BCE and 20 BCE, and this helps to explain why *Heraclea* does not appear on Pliny's list of Sicilian cities and communities. ⁸²

On the northern coast of the island, the small city of *Soluntum* seems to have been doing reasonably well until the mid or late first century BCE. However, already in the first century CE private houses were built in the theatre, and various other public amenities fell into disrepair from the Augustan period. ⁸³ Although a dedication to Caracalla has been found at *Soluntum*, the site of the Hellenistic and early-imperial city seems to have been abandoned by the midthird century CE. However, because the city appears not only in the Antonine Itinerary but also in a law of the mid-fifth century CE, it has been suggested that the area of habitation moved back to the area occupied by Classical *Solus*, which was situated directly on the coast. ⁸⁴ If this theory is correct, the new settlement is likely to have been a modest port of call rather than a fully fledged town equipped with a significant number of public buildings.

There is at least one other example of a city in the coastal districts of Sicily moving to the coast. In late-Classical and Hellenistic times the small city of *Calacte (Kale Akte)* had been a hill-top settlement on the site of the modern town of Caronia. In this period the city occupied an area of approximately 8 ha. In the mid-first century CE the town on the hill of Caronia was abandoned, but a new settlement appeared at the site of present-day Marina di Caronia. Based on the limited amount of evidence currently available an estimate of c. 10 ha may be offered for this new agglomeration, which may not have been urban in character. The continued existence of the *Calactini* as a self-governing community is confirmed by Pliny's list, on which they appear as the *Galatini* (Plin. *NH* 3.91).

A shift in settlement similar to that which has been observed in *Calacte* has been suspected in the case of *Haluntium*. Between the fourth century BCE and the Augustan period this city was perched on a mountain overlooking the Tyrrhenian Sea, at a distance of c. 10 km from the coast. In the first century CE

⁸¹ de Miro 1958: 257–260; id. 1966: 221–225.

⁸² There is no evidence to support Andrew Wilson's view that *Heraclea* remained a 'major city' in early-imperial times (Wilson 2011: 183) or Hanson's claim (Hanson 2016: 754) that occupation continued throughout the Roman period.

⁸³ Tusa 1968; Wolf 2012. Cf. Wilson 1990: 23-24 and 156; id. 1995-1996: 102.

Pedication to Caracalla: CIL x, 7336. Fifth-century law: Nov. Val. 1.2.1, 440 CE; cf. Wilson 1990: 156.

⁸⁵ Collura 2012.

a number of houses which had been built in the third century BCE were abandoned, suggesting that the city went into decline in the early-imperial period. 86 It seems possible, however, that the population of the city moved to a new location in the coastal plain, although as yet no evidence of a new settlement has been discovered.

The northern port city of *Cephaloedium* (Cefalù) is referred to as a 'small town' (*polichnion*) by Strabo. This label seems entirely appropriate for an urban centre whose size has been estimated as only 10.5 ha. Unfortunately, relatively little archaeological work has been done in the city centre of modern Cefalù, making it difficult to trace the town's development during the first centuries of the Empire. Various streets were repaved in the Augustan period, but as yet no traces of other Roman interventions regarding public amenities have been detected. Most of the burials are Hellenistic but the cemeteries remained in use at least until the first century CE. A handful of early-imperial inscriptions are on display in the local archaeological museum, and two sarcophagi and part of a third one, all belonging to the mid-third century CE, can be seen in the cathedral and in the church of San Francesco.⁸⁷ We cannot venture beyond the conclusion that the Roman city continued to exist until the early sixth century CE.

While there is clear evidence of contraction or abandonment in at least six coastal cities (Syracuse, *Helorus, Agrigentum, Camarina, Phintias* and *Heraclea*), various other maritime cities appear to have flourished during the first two centuries of the imperial period. On the west coast of the island, the built-up districts of *Lilybaeum* (Marsala) filled the entire area enclosed by the Punic city wall (90 ha). Some 80 km to the north-east Roman-period *Panormus* (Palermo) also seems to have occupied all of the 36 ha within the Punic fortifications.

Clear signs of prosperity have also been detected in *Tauromenium*, *Tyndaris* and *Halaesa*. The classical walls of *Tauromenium* are thought to have enclosed an area of approximately 65 ha, but only about one third of this area (20 ha) appears to have been occupied during the Principate. ⁸⁸ In the case of *Tyndaris* as well only about one third of the area enclosed by the wall of the fifth century CE (10 ha out of 27 ha) appears to have been covered by Hellenistic and Roman buildings. ⁸⁹

⁸⁶ Bonanno 1993–1994, Bonanno and Arfica 2008–2009; Lentini 2006.

⁸⁷ Wilson 1990: 157; di Vincenzo 2013: 115.

Area enclosed by Classical walls: Hansen 2006: 106–107; size of area available for occupation 28 ha according to Rizzo 1928: 301; 29 ha according to Wilson 1990: 382 n. 78.

⁸⁹ Belvedere and Termine 2005: 86, Figs. 1-2.

Like *Cephaloedium*, *Halaesa* appears in Strabo as a 'small town' (*polichnion*) and from this it has been inferred that this city might have become less important during the imperial period. However, since *Halaesa* occupied an area of only 16 ha, the use of the term *polichnion* can be accounted for without positing a period of significant decline. After the second century CE *Halaesa* does not seem to have received any new monumental buildings, but everything suggests that the city continued to be well-populated until Late Antiquity.⁹⁰

Only three coastal cities are thought to have expanded far beyond their Classical walls. As we have seen, the early-fourth-century walls of *Messana* might have enclosed an area of approximately 25 ha. Not much is known about the layout of the Roman city, but we do happen to know the approximate whereabouts of its southern and northern boundaries (cf. Appendix). If Roman *Messana* did not extend westward beyond the Colle della Caperrina, as seems likely, it would have occupied approximately the same area as that enclosed by the Norman city walls (60 ha). On this admittedly somewhat unsatisfactory basis, a doubling of the built-up area may be hypothesised.

Another coastal city which is believed to have acquired a built-up area extending far beyond the pre-Roman walls is *Catina* (Catania). Estimates for the area enclosed by the walls of Classical *Katane* range from 34 ha to 65 ha (cf. above). Whichever estimate is preferred, there can be no doubt that Roman *Catina* was much larger than its Archaic or Classical predecessor. In various publications Wilson has credited the Roman city with a built-up area of between 110 ha and 130 ha. 92 Based on a recent re-examination of the archaeological evidence by Santo Privitera an estimate of approximately 90 ha seems more realistic. 93 However, even if we opt for this lower estimate, the Roman city would have been about two times larger than its Archaic and Classical predecessors, on the assumption that the high estimate for Archaic-Classical *Katane* is correct and that 70% of this area (45 ha) was built over.

Some forty km east of *Panormus* the port city of *Thermae Himeraeaea* (Termini Imerese), which had replaced the Classical city of *Himera* (cf. above), also

⁹⁰ Wilson 1990: 150. Burgio 2008a: 45 accepts that Halaesa might have declined from the late second century CE, but also sees signs of vitality during the first two centuries of the Principate.

⁹¹ Scibona 1986: 455 and the maps in Bacci and Tigano 1998–2003, one of which is reproduced in Fuduli 2012: 207, Fig. 14. The area of c. 100 ha shown in Wilson 1990: Fig. 134.3 looks too large.

⁹² Wilson 1990: 171 (128 ha); id. 1996: 152 (130 ha); cf. Privitera 2009: 58.

⁹³ Privitera 2009: 48–49. The archaeological evidence shows that the expansion of the city beyond the Archaic and Classical walls started as early as the mid-third century BCE (ibid. 44).

flourished. To judge from the locations of the Hellenistic cemeteries, the area enclosed by the city wall of the fourth century BCE might have been no larger than 15 ha. In early-imperial times the built-up area expanded on to the hill of Santa Lucia, and another new urban quarter grew up near the Roman harbour. The area occupied by the Roman city might have been roughly equal to that enclosed by the medieval walls (50 ha). 94 If these indications can be relied upon, Roman *Thermae Himeraeae* was approximately three times larger than its late-Classical and Hellenistic predecessors.

While a considerable number of coastal cities appear to have prospered in early-imperial times, archaeological investigations carried out during the past fifty years have revealed many cases of urban decline or abandonment in the interior districts of Sicily. As we shall see, a few land-locked cities seem to have survived in pretty good shape until the end of our five-hundred-year period, and it is also clear that those cities where evidence of shrinkage or abandonment has been detected did not decline all in one particular period. Yet there can be no doubt that by the end of the second century CE a large proportion of those cities of the interior districts which had existed in the early-Hellenistic period had ceased to be recognisably urban, not only in terms of settlement size, but also because elite expenditure on public amenities and private urban dwellings had come to a halt.

By far the most striking example of urban decline in the land-locked parts of eastern Sicily comes from *Leontini*. ⁹⁵ According to the *Copenhagen Inventory of Archaic and Classical Poleis*, the sixth-century wall of *Leontini* enclosed an area of approximately 40 ha, but the new walls of the fifth and fourth centuries are thought to have protected a considerably larger area, with estimates for the size of the city at the moment of maximum expansion ranging between 60 ha and 70 ha (cf. above). ⁹⁶

In 214 BCE *Leontini* was captured by the Romans but not destroyed (Livy 24.30). It appears from the Verrine orations that part of the city's territory was confiscated during the Second Punic War, but, as Jonathan Prag has recently argued, the land in question might well have belonged to King Hiero II of Syracuse.⁹⁷ In short, there is no evidence to suggest that the city was severely punished in or after 214 BCE. Yet the archaeological record leaves no doubt that the second and first centuries BCE witnessed a gradual shift in settlement from the

⁹⁴ Belvedere 1997; Chiovaro and Rondinella 2017.

⁹⁵ For the purpose of this contribution 'eastern Sicily' has been defined as comprising all locations to the east of the fourteenth meridian.

⁹⁶ Felici and Buscemi Felici 2004: 42 (70 ha); cf. Frasca 2009: 68, and id. 2012: 176 (60 ha).

⁹⁷ Prag 2014: 194–195.

hill occupied by Classical and Hellenistic *Leontini* to the valleys below, leaving only a small settlement at the site of the old city. 98

Some inland cities of eastern Sicily appear to have been abandoned in the course of the third century BCE. One example is *Hybla Heraea*, if the traditional identification with Ragusa Ibla is correct.⁹⁹ Despite the disappearance of their central city, the *Hyblenses* feature on Pliny the Elder's list of Sicilian cities and communities (*NH* 3.91).

The eastern-Sicilian settlement of *Noae* has not convincingly been located on the ground. Candidates include Montagna di Ramacca, Monte Iudica, Monte Catalfaro and Monte Balchino. The hilltop settlement of Monte Balchino was abandoned around 450 BCE, Montagna di Ramacca and Monte Iudica after the fourth century BCE, and Monte Catalfaro after the third century BCE. 100 Yet the *Noini* appear on Pliny's list (*NH* 3.91), suggesting that they survived as a self-governing community.

In addition, at least eleven further fortified hill-tops settlements of eastern Sicily are thought to have been abandoned in the course of the third or second centuries BCE: Castiglione di Ragusa, Cozzo Mususino, Monte Artesina di Nicosia, Monte Desusino, Monte Gibil Gabib, Monte Rossomanno, Monte San Giorgio (perhaps to be identified with ancient *Ameselon*), Piano Rizzuto, Polizzi Generosa, Sabucina and Terravecchia di Grammichele.¹⁰¹

Various other small cities of the interior districts of eastern Sicily went into decline at a later date. *Herbessus* (Montagna di Marzo) was abandoned in the first century BCE, *Apollonia* either in the late first century BCE or in the early first century CE, *Murgantia* in the mid-first century CE, and *Assorus* in the final decades of the first century CE. According to Wilson, *Mutyce* (Modica) carried on as a small town until the early third century CE, but there is hardly any evidence of continued occupation in early-imperial times, and the appearance of a large necropolis at the village of Treppiedi suggests that the population may have scattered into the rural territory.¹⁰²

⁹⁸ Valenti 1999; Frasca 2009: 147-159.

⁹⁹ Militello 1958; Wilson 1990: 152. In principle, Pliny's *Hyblenses* might be the inhabitants of *Hybla Gereatis* (Paternò), but Paus. 5.23.6 reports that this *Hybla* was a village in the territory of *Catina*.

Montagna di Ramacca: Procelli 1975; Monte Iudica: Orsi 1907: 489–491, Wilson 1985: 335, Privitera 1988–1989 and 1997–1998; Monte Catalfaro: Messina 1970, Cirelli 1997–1998, Maniscalco 2005, Bonacini 2007: 50; Monte Balchino: Albanese 2003: 146, Bonacini 2007: 56; in the second half of the second century BCE a small village appeared on Poggio Spadalucente, about 1 km to the south of Monte Balchino.

¹⁰¹ Cf. Wilson 2000b.

¹⁰² Montagna di Marzo: Guzzardi 1999; *Apollonia*: Bonanno and Perrotta 2008; *Assorus*: Morel 1966, Wilson 1990: 45; *Mutyce*: Wilson 1985: 320, di Stefano 2009.

On the south-western slope of Etna the city of *Hadranum* (Adrano) continued to be inhabited, but almost certainly declined. To judge by the size of the area enclosed by the wall circuit of the fourth century BCE (60 ha), *Hadranum* had been a city of considerable importance in the late Classical and Hellenistic periods. Only a limited number of houses have been excavated, most of them during rescue excavations. Based on the evidence currently available it looks as if habitation of these domestic units ceased after the third century BCE, and published funerary material has been dated to the fourth-to-second centuries BCE. 103 Yet *Hadranum* is known to have been a *municipium* in the second century CE. It seems reasonable to infer from this that the city continued to be inhabited but on a much reduced level. 104

In northern and north-eastern Sicily the hill-top towns of *Amestratus*, *Abacaenum* and *Apollonia* are thought to have been downgraded to secondary settlements within the territories of neighbouring cities (cf. above). While the *Herbessenses*, the *Murgentini*, the *Assorini* and the *Hadranitani* appear on Pliny's list, the *Abacaenini*, the *Amestratini* and the *Apolloniates* do not.

The only city of the interior districts of eastern Sicily that has produced solid evidence of continued prosperity and investment in monuments and public buildings during the first and second centuries CE is *Centuripae*. In his second Verrine oration Cicero credits the city, or rather the community, with no fewer than 10,000 *cives*, suggesting a population of approximately 35,000 for the city and its territory. It also appears that wealthy citizens from *Centuripae* leased a large proportion of that part of the *ager Leontinus* which had become *ager publicus* after the Second Punic War.¹⁰⁵

Most of the remains of Hellenistic and Roman *Centuripae* lie buried beneath the modern town of Centuripe, which occupies the upper slopes of a starshaped hill. Excavations carried on the north-eastern slope of the central hill have revealed the remains of a *forum* complex which was littered with statues of Augustus and other emperors of the first and early-second centuries CE. Large parts of this *forum* complex and some of the buildings surrounding it have been dated to the second century CE. In other parts of the city remains of two Roman baths have been detected, and in the late second or early third century CE a third bath building was erected on the outskirts of the urban area. Yet there is some archaeological evidence to suggest that some peripheral quarters which had grown up in Hellenistic times were not reoccupied when the

¹⁰³ Lamagna 1991 and 1997-1998.

¹⁰⁴ Cf. Wilson 1988: 197, and id. 1990: 151.

¹⁰⁵ Cic. 2 Verr. 2.163: decem milia civium; cf. Duncan-Jones 1982: 261. Part of the ager Leontinus farmed by tenants from Centuripae: Cic. 2 Verr. 3.114.

city was rebuilt by Augustus, 106 and there are no reasons to think that early-imperial Centuripae was larger than its modern successor which occupied an area of approximately 18 ha in the late 1980s. 107

I round off my discussion of the transformation of Sicily's urban system between the early third century CE and the final decades of the second century CE with a brief discussion of the archaeological evidence relating to the land-locked cities of the western half of the island. As we shall see, here too the general picture is one of urban decline or abandonment, but as in the case of eastern Sicily these processes affected different cities in different periods.

In the region between the Belice (*Hypsas*), the Eleuterio (*Eleutherus*) and the Salso (*Himera*), the cities of *Hippana*, *Triocala*, *Myttistratum* and *Macella* were partly destroyed or completely wiped out in the third century BCE, probably during the First Punic War. In *Hippana* and *Triocala* destruction was followed by complete abandonment. Archaeological work carried out on the sites of *Myttistratum* and *Macella* has produced evidence of continued occupation, but this was on a small scale and no longer urban. The *Hippanenes* are not mentioned by Pliny (unless they lurk behind the otherwise unknown *Ichanenses*), but the *Magellini* (= *Macellini*), the *Mutustratini* and the *Triocalini* feature on his list and must have survived as self-governing communities.

In addition, at least fourteen further fortified hill-top settlements in the area between the Belice and the Salso have produced evidence of abandonment in the third century BCE, contributing to the impression that this period witnessed a drastic restructuring of the settlement system of this part of Sicily. 109

Other fortified agglomerations were also abandoned but at much later dates. The settlement at Monte Riparato di Caltavuturo, which might correspond to *Paropus*, the central town of Pliny's *Paropini*, ceased to be inhabited in the final decades of the first century BCE. In the area to the south of *Panormus* the settlement of Pizzo Nicolosi also survived until the first century BCE albeit in

On the north-eastern limit of the area occupied by Hellenistic *Centuripae*, see Patané 2006: 209–210, modifying Wilson 1988: 187.

¹⁰⁷ Wilson 1990: 147, Fig. 129.7. Nowadays the hill-top town occupies an area of about 20 ha.

¹⁰⁸ *Hippana*: Vassallo 1997; *Triocala*: Panvini 1988–1989; *Myttistratum*: Fiorentini 1980–1981 and 1984–1985, Wilson 1990: 145; *Macella*: Spatafora 1994–1994 and 2009. Cf. Plb. 1.24.10–11 and Diod. 23.9.3.

The hill-top settlements in question are Balate di Marianopoli, Castellazzo di Palma di Montechiaro, Cozzo Sannita, Cozzo Spolentino, Montagna Vecchia di Corleone, Montagnoli, Monte Falcone di Baucina, Monte Adranone, Monte Porcara, Monte Raffe di Mussomeli, Mura Pregne, Pizzo di Casa, Pizzo di Ciminna, Pizzo Nicolosi, Rocca Nadore. See Wilson 2000b, Gargini 2001 and Vassallo 2011. For Pizzo di Casa see Vassallo 1985: 140.

¹¹⁰ Wilson 1990: 145; Pancucci 2006.

much reduced form.¹¹¹ Another good example is provided by the Elymian town of *Entella*. This town seems to have peaked in the fourth and early-third centuries, when about two thirds of its walled area were occupied with varying degrees of intensity (cf. above). After a period of contraction which lasted from the first century BCE to the early Augustan period only the southern part of the Rocca continued to be inhabited. By the mid first century CE the city was completely abandoned.¹¹²

In the region to the west of the Belice and the Eleuterio signs of abandonment during the third century BCE have been detected at Castellaccio di Sagana, Castello di Calatubo, Monte d'Oro di Montelepre, Monte Polizzo and Pizzo Cannita.

Other urban centres in this part of Sicily survived much longer. In Classical and early-Hellenistic times *Segesta*, whose fifth-century walls enclosed an area of 55 ha, had been the largest city of the *Elymi*. Sometime after the Roman conquest a new wall section was built in an area formerly occupied by Hellenistic houses. After the construction of this new wall, which has been variously dated to the second or first centuries BCE, the wall circuit of *Segesta* enclosed an area of 32 ha. In the late first century BCE or early first century CE the city was equipped with a small *forum*. While the creation of this new public space attests to the continued vitality of the city until the Augustan period, signs of urban decay begin to appear in the first century CE, when the theatre ceased to be kept in good repair and some of the city's Hellenistic houses were abandoned. By the mid-third century CE the area occupied by the Hellenistic and late-Republican city was completely abandoned, with *Aquae Segestanae* emerging as the new central place of the *Segestani*.¹¹³

Some 20 km to the south-west of *Panormus* the hill-top town of *Iaetas* (Monte Iato) had a walled area of approximately 40 hectares (cf. above). Extensive archaeological investigations which have been carried out since the early 1970s have shown that *Iaetas* flourished in the fourth and third centuries BCE. In this period *Iaetas* had a theatre, a *bouleuterion* and a paved *agora* that was enclosed by three stoas and two temples. As late as the final decades of the second century BCE a new council house was erected. From the late first century BCE public building activities came to a complete halt and the town started to go into decline. From the first century CE onward simple dwellings appeared in the *agora* and near the dilapidated theatre. This proves that *Iaetas* escaped total abandonment, but after the cessation of public buildings and the disap-

¹¹¹ Vassallo 1985: 141.

¹¹² Nenci 1996; Michelini and Parra 2001.

¹¹³ Wilson 1990: 383 n. 78; id. 1995–1996: 116–117; Facella and Olivito 2010.

pearance of elite dwellings it clearly declined to the level of an overwhelmingly agrarian settlement to which the label 'urban' can no longer realistically be applied. 114

Two further towns which were situated to the west of the Platani and the Eleuterio are also known to have declined during the late Republic or Early Empire. To judge from the material unearthed by the recent excavations at Salemi, the site of ancient *Halicyae*, occupation of the town became very sporadic after the first century BCE. ¹¹⁵ This might explain why *Halicyae* does not appear in the Antonine Itinerary of the late third century CE. In the northwestern parts of the Elymian region the town of *Eryx* seems to have been abandoned in the first half of the first century CE. Since *Eryx* was home to the famous temple of *Venus Erycina*, one would expect to find at least some evidence of continued vitality. Yet Strabo reports that the town was sparsely inhabited, and not only the city wall but even the sanctuary seems to have fallen into disrepair after the early first century CE. Wilson suggests that *Eryx* became a *vicus* in the territory of *Segesta*. ¹¹⁶

It is time to pull together some of the threads of the first part of this paper. Our survey of the coastal cities of Sicily has revealed six cases of urban decline, or eight if *Soluntum* and *Calacte* are included. Nine coastal cities appear to have flourished, and three of these experienced significant growth during our five-hundred-year period. In striking contrast to this no fewer than 47 (18 + 29) towns and hill-top settlements of the interior districts show signs of severe shrinkage or abandonment.¹¹⁷

¹¹⁴ Isler 2000 offers a succinct survey of the town's development. See also Wilson 1990: 144, id. 1995–1996: 108, id. 2000a: 147–150, and Isler 2012: 234–235.

¹¹⁵ Vecchio et al. 2003; Kolb et al. 2007. After suggesting that Salemi/*Halicyae* might still have flourished in the first century BCE, Kolb 2007: 183, goes on to note the striking rarity of Arretine sherds, with only one certain example among 6,000 diagnostic sherds discovered during the excavations in Via Cappasanta.

Strabo 6.2.6; Tac. *Ann.* 4.43; Tusa and Nicoletti 2003; Wilson 1990: 154. In 260 BCE the Carthaginian general Hamiltar demolished *Eryx*, except for the area around the temple, and removed the Erycinians to *Drepanum*. Yet there is no evidence for *Drepanum* developing into an important city, either during the Republic or under the Empire.

Eastern Sicily: *Assorus*, Castiglione di Ragusa, Cozzo Mususino, Modica, Monte Artesina di Nicosia, Montagna di Marzo, Monte Catalfaro, Monte Desusino, Monte Gibil Gabib, Monte Rossomanno, Monte San Giorgio, *Murgantia*/Morgantina, Piano dei Casazzi, Piano Rizzuto, Polizzi Generosa, Ragusa Ibla, Sabucina, Terravecchia di Grammichele. Western Sicily: Monte Adranone, Balate di Marianopoli, Castellaccio di Sagana, Castellazzo di Palma di Montechiaro, Castello di Calatubo, Cozzo Sannita, Cozzo Spolentino, *Entella, Halicyae, Hippana, Iaetas, Macella*, Montagna Vecchia di Corleone, Montagnoli, Monte d'Oro di Montelepre, Monte Falcone di Baucina, Monte Polizzo, Monte Porcara, Monte Raffe di Mussomeli, Monte Riparato, Mura Pregne, Pizzo Cannita, *Myttistratum*, Pizzo di Casa, Pizzo di Ciminna, Pizzo Nicolosi, Rocca Nadore, *Segesta, Triocala*.

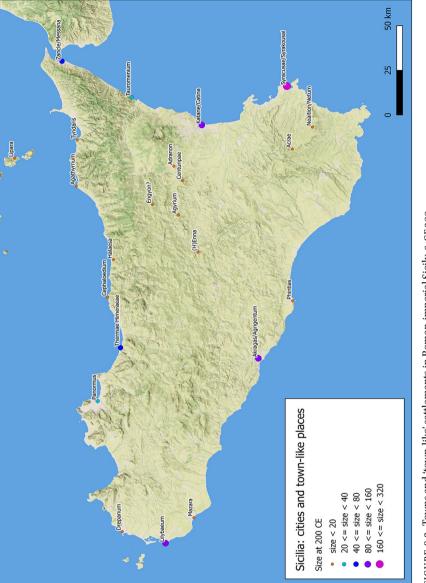


FIGURE 8.2 Towns and 'town-like' settlements in Roman-imperial Sicily, c. CE200

My map for the final years of my five-hundred-year period shows the new urban pattern resulting from these long-term regional trends (Fig. 8.2). Unlike the map which can be drawn for the start of the Hellenistic period (Fig. 8.1), that for 200 CE shows only a handful of urban centres in the interior districts of the island. None of these surviving inland towns occupied an area larger than 20 hectares (the largest being *Centuripae* with c. 18 ha) and all of them were situated in the eastern part of the island. As noted above, the number of coastal cities was also severely reduced during our five-hundred-year period, and at least some of those maritime cities which survived appear to have shrunk. How do we explain these striking reconfigurations?

From a *longue durée* perspective it is, of course, not surprising that at the end of our five-hundred-year period all of the largest cities of Sicily were situated on the coast. From the Archaic period onward the Greek and Punic colonies had controlled not only the coastal plains but also large tracts of land in the landlocked districts of the island. ¹¹⁸ As a general rule, the cities of the interior districts had smaller tracts of fertile land, not only because they were situated in mountainous areas but also simply because for historical reasons they had never been able to establish control over extensive areas.

The colonisation programme that was carried out under Augustus can be seen as reinforcing the coastal emphasis of Sicily's urban system. In 21BCE Roman colonies were established in Syracuse, *Catina, Panormus, Thermae Himeraeae, Tauromenium* and *Tyndaris*, but none in the interior districts. Part of the explanation must be that the coastal plains contained extensive tracts of fertile land where large groups of veterans could be settled. In addition, the presence of communities of Roman citizens in these maritime cities is likely to have enhanced their attraction to new settlers (cf. below).¹¹⁹

At the same time an explanatory model which focuses on the geographical distribution of natural resources, on inherited patterns of administrative control over these resources and on the distribution of existing communities of Roman citizens cannot account for the abandonment or contraction of a very large number of small cities and town-like hill-top settlements in the inte-

¹¹⁸ See, for instance, Muggia 1997: 100–102 for a discussion of the enormous territory of Classical Akragas.

In Classical and Hellenistic times various landlocked cities of eastern Sicily, such as *Centuripae* and *Leontini*, also controlled large amounts of good arable land. In early-imperial times the territory of *Leontini* may have been divided between *Catina* and *Centuripae* (Wilson 1990: 151). Although *Centuripae* flourished during the Principate, there can be no doubt that *Catina* was several times larger.

rior districts of Sicily. Nor can it explain why only some of the coastal cities of Roman Sicily flourished whereas other maritime cities declined or disappeared.

In view of the high levels of violence which are known to have existed on the island it is tempting to posit the existence of a causal connection between quasi-continuous warfare and the disappearance or decline of cities. As the examples of *Gela* (destroyed between 287 BCE and 282 BCE) and *Megara Hyblaea* (destroyed in 214 BCE) show, some Sicilian cities were completely wiped out as result of warfare and population displacement. However, many other cities which were badly hit by the wars of the third century BCE, such as *Akragas*, *Lilybaeum*, Syracuse and initially also *Camarina*, are known to have recovered. Conversely, a considerable number of cities which were lightly hit, such as *Leontini*, or did not suffer any damage at all, such as *Phintias*, are known to have gone into decline at various moments between the early second century BCE and the late first century BCE.

The disappearance of some of the fortified hill-tops towns of the interior districts of western Sicily can be explained as reflecting the disappearance of the frontier which had separated the Carthaginian sphere of influence from the rest of the island. Some of the small towns of Sicanian Sicily, such as *Hippana* and *Triocala*, had served as strongholds at strategic points in this frontier zone. Part of the reason why these two cities were never reoccupied after the First Punic War may well have been that the need for such strongholds disappeared after the unification of the island under Roman rule.

Perhaps more importantly, the gradual establishment of the *pax Romana* after the First and Second Punic Wars must have meant that the defensive considerations which had prompted a large proportion of the Sicilian population to build their houses in fortified hill-top settlements became largely irrelevant. As Wilson observes in his 1990 book, 'Life on a not-easily-accessible and often waterless mountain-top, however spectacular the view, was hardly comfortable or convenient once defensive factors no longer made hill-top dwelling imperative'.¹²¹

In addition, the Roman conquest resulted in a drastic redirection of resource flows on the island. Between the First and Second Punic Wars the inhabitants of western and central Sicily began to pay taxes (in kind) to the new provincial administration, and after the disappearance of the kingdom of Syracuse the *decuma* previously owed to the king of south-eastern Sicily also began to

¹²⁰ After the treaty of 339 BCE the river *Lykos* (the present-day Platani) formed the eastern boundary of the Carthaginian *eparchia*. See De Vincenzo 2013; 24–28.

¹²¹ Wilson 1990: 155.

be farmed out by the provincial governor.¹²² From now on these taxes had to be carried to port cities from where they were shipped to the city of Rome or to Roman armies operating in various parts of the Mediterranean world. In conjunction with the relative safety resulting from the disappearance of invading armies and internal warfare this re-orientation of the Sicilian tax system and economy must have increased the attractiveness of living near a major or secondary road in one of the valleys.

What is less clear is what happened to the local elites of these declining towns. Wilson argues that local landowners are unlikely to have moved to the large or medium-sized cities of the coastal districts, in part because it must have been difficult for them to be accepted into the elite of another city, but also because they must have been disinclined to move away from those areas where they owned most of their landed property. On this basis he identifies the villa estates of the de-urbanised regions as the most likely destinations of the local aristocracy. It is, however, not immediately apparent why moving to an isolated rural estate without any public amenities would have been more attractive than building a new life in a vibrant coastal city.

In a recent article Claudia Moatti re-examines the legal rules governing the legal status of *incolae* (immigrants residing in a city whose citizenship rights they lacked). According to a passage from Gaius' commentary on the provincial edict which has been preserved in the Digest, it appears that by the mid-second century CE *incolae* had to perform public obligations (*munera*) not only in those cities where they lived but also in those communities from which they originated. This rule seems to have been generalised by Hadrian. For our purposes the most interesting aspect of this legal principle is that it presupposes a significant level of mobility among people sufficiently wealthy to qualify for the imposition of public duties. A fragment from Ulpian's *Opinions* explicitly states that it applied to *decuriones* who have moved away from their cities of origin and that the provincial governor is to force such migrants to return to their home cities and to take on any public duties to which they are liable. 124 Given

On Roman taxation in Republican Sicily see Scramuzza 1937: 253–259; Pinzone 1999; Dubouloz 2007. Prag 2003 points out that the tax-farmers who collected the grain tax were members of local elites rather than Roman citizens from mainland Italy. There is no evidence to support the theory that Sicily ceased to be taxed in kind during the Principate. See Duncan-Jones 1990: 189–190.

¹²³ Wilson 1990: 156.

D. 50.1.29 Gai. and D. 50.2.1 pr. Ulp., to be read with Moatti 2014: 136–140, and ead. 2017: 242–244. For further discussion see Gagliardi 2006: 451–480. Interestingly, various cities of early-imperial Italy are known to have co-opted immigrants belonging to various status groups as cives adlecti (Garnsey and de Ligt 2016). It does not seem far-fetched to suppose

this clear evidence for elite mobility, we must surely reckon with the possibility that many members of the old elites of the decaying towns of the interior districts of Sicily did in fact decide to spend part of their lives in other cities.

Let us now take a closer look at the development of cities in the coastal districts. As we have seen, a considerable number of coastal cities which had been important in the Classical or Hellenistic periods appear to have gone into decline sometime between 300 BCE and CE200. Along the south coast *Camarina* and *Heraclea Minoa* were abandoned, and signs of contraction have been discovered at *Phintias* and *Agrigentum*. On the north coast the hill-top towns of *Soluntum* and *Calacte* were abandoned in favour of modest ports of call. Yet various other coastal cities, such as *Lilybaeum*, *Panormus*, *Catina* and *Messana*, flourished. On the east coast Syracuse seems to have lost some of its residential quarters, but maintained its position as the largest city of the island. How do we explain these patterns?

Port cities were the most likely beneficiaries of the reconfiguration of resource flows which resulted from the Roman conquest. As we have just noted, following the imposition of Roman rule taxes in kind were carried to port cities and shipped out of the island. At the same time the fast expansion of the city of Rome created a new market for Sicilian exports. Writing in the time of Augustus, Strabo refers to Sicily as 'the storehouse of Rome'. He goes on to claim that only a small proportion of what is produced in Sicily is consumed by the provincial population, with large amounts of field crops, cattle, hides and wool finding their way to the Roman market. Interestingly, this passage emphasises the new commercial opportunities created by Sicily's incorporation within the Roman empire rather than the exploitative nature of the Roman system of taxation. 126

that at least some Sicilian cities used similar legal devices to co-opt wealthy members of the elites of other cities. Wilson (1990: 156) himself argues that in the course of the first and second centuries CE the territories of many abandoned towns must have been distributed among neighbouring cities still in existence. It does not seem implausible that territorial incorporation was sometimes accompanied by the bestowal of local citizenship.

¹²⁵ Strabo 6.2.7.

For a balanced survey of the Sicilian export trade during the late Republic, which acknowledges the important role played by merchants from the Italian mainland while leaving ample room for Sicilian traders see Scramuzza 1937: 298–302; cf. ibid. 312–314 on Sicilian tax-farmers and money-lenders. Paterson 1998: 150, correctly stresses the big profits made by Roman businessmen but ignores the lucrative activities of Sicilian landowners and merchants (cf. Wilson 2000a: 144–145). Some of the exported items listed by Strabo must have originated from estates, herds or flocks owned by members of the senatorial or equestrian elite who did not live on the island. But while the existence of properties

What is more difficult to explain is why only some coastal cities prospered whereas others declined. With the exception of *Messana*, all the major cities of Classical, Hellenistic and Roman Sicily were situated in areas which had large tracts of fertile land.¹²⁷ Yet on the south coast of early-imperial Sicily only *Agrigentum* survived as a large city, whereas *Heraclea Minoa*, *Phintias* and *Camarina* declined.

Part of the answer must be that, in addition to serving as ports for the shipment of Sicilian goods, some Sicilian cities functioned as nodal points in the complex maritime networks that linked central-western Italy with other parts of the Mediterranean world. The prosperity of *Messana*, which did not have a large and fertile territory, reflects the vital importance of the Strait of Messina as a shipping lane for fiscal and commercial cargoes travelling to Rome, and the ports of Syracuse and *Catina* were well placed to receive ships from the Greek-speaking provinces and from eastern *Africa Proconsularis*. On the west and north-west coasts *Lilybaeum* and *Panormus* played a similar role on one of the shipping routes between central and western *Proconsularis* and Italy.¹²⁸

There are also indications that a small group of coastal cities, including the five cities just mentioned, had come to surpass the other port cities of the island by the early first century BCE. In his Second Verrine oration Cicero enumerates eight Sicilian port cities, namely Syracuse, *Agrigentum*, *Lilybaeum*, *Panormus*, *Thermae Himeraeae*, *Halaesa*, *Catina* and *Messana*. Although he says that there were some more ports, he clearly names those which he regards as the most important. It also appears from the Verrine orations that large communities of Roman citizens (*conventus civium Romanorum*) resided in five of these cities (Syracuse, *Agrigentum*, *Lilybaeum*, *Panormus* and *Messana*). The obvious explanation is that all of these cities were ideal bases for Italians with

owned by Roman senators and *equites* is not in doubt (e.g. Scramuzza 1937: 338 and 363), the importance of this phenomenon cannot be assessed on the basis of the surviving evidence.

¹²⁷ It should, however, be noted that Messana seems to have controlled the plain of Mylae/ Milazzo.

For good discussions of various routes connecting North Africa and the eastern Mediterranean with Rome via the strait of Messina and the west coast of Sicily, see Bonora Mazzoli 2002 and Mosca 2002. For Syracuse and *Lilybaeum* see Pfuntner 2013: 32–40. The presence of substantial amounts of African red-slip ware at *Agrigentum* shows that this city maintained close contacts with North Africa between the second and early seventh centuries CE; see Malfitana et al. 2013: 431–432.

¹²⁹ Cic. 2 Verr. 2.185.

¹³⁰ Scramuzza 1937: 338-339.

business interests in Sicily because they were situated on the interface between the island and the western Mediterranean. It cannot be a coincidence that Cicero's shortlist of prominent Sicilian ports includes the seven largest cities of early-imperial Sicily, with number eight (*Halaesa*) representing one of the more important small cities of the first and second centuries CE.

Of the coastal cities which flourished during the early Empire *Tauromenium* and *Tyndaris* do not appear on Cicero's list. When Cicero composed his Verrine orations, *Tauromenium* had a small community of Roman citizens, and *Tyndaris* has been identified as the assize centre for north-eastern Sicily.¹³¹ In the early-imperial period *Tauromenium* appears to have had a built-up area of about 20 ha, but *Tyndaris* was a small city, with perhaps only 10 ha of built-up space.

To judge from the archaeological evidence available at present, the decline of many of the port cities of the south coast, which left *Agrigentum* as the only surviving major city, was more or less complete by the end of the first century BCE. On the north coast the site of Classical and Hellenistic *Calacte* seems to have been abandoned by the mid-first century CE, and the site of late Classical, Hellenistic and early-imperial *Soluntum* experienced a similar fate in the late second or early third century CE. While the combined literary and archaeological evidence leaves no doubt that a small group of coastal cities continued to flourish, we must also account for the decline of various other cities of the coastal districts.

Since the coastal cities of Sicily were set in different natural landscapes, and also because each city had its unique history, we cannot expect to find a general explanation capable of accounting for all cases of urban decline or abandonment. Nonetheless some general tendencies can be discerned.

One of the regularities which seem to emerge is a settlement shift from hill-top locations to flat areas which were situated directly on the coast. Like many towns of the interior districts, some cities of the coastal districts, such as *Soluntum* and *Calacte*, were situated on waterless hill-tops. Following the establishment of the *pax Romana* there was a strong incentive to move down onto the coastal plain, which offered easier access to drinking water and to harbour facilities. However, as in the case of many land-locked cities, settlement shift to more convenient coastal locations seems to have been accompanied by the disappearance of local elites. Why did this happen?

¹³¹ Roman citizens at *Messana*: Scramuzza 1937: 337–338; for the identification of *Tyndaris* (rather than *Messana*) as the *conventus* centre of north-eastern Sicily: Kunkel and Wittmann 1995: 367 n. 225.

Although I do not claim to have a perfect answer to this question, I would like to suggest that variations in city size might be part of the reason why some coastal cities did better than other cities. After its foundation in the 280s BCE, the coastal city of *Phintias* acquired an agora, a gymnasium and no doubt various other public amenities. However, if late-Republican Agrigentum was considerably larger than Phintias, it might well have attracted members of the latter city's elite, simply because it offered a wider range of public amenities, better economic opportunities and a more rewarding social and cultural life. 132 Similarly, Hellenistic Soluntum was equipped with an impressive array of public amenities, including an agora, a theatre, a gymnasium and temples. However, the simple fact the city was at least two times smaller than Panormus and three times smaller than Thermae Himeraeae must have meant that the latter cities were economically and socially more vibrant. Therefore members of Soluntum's local elite may well have perceived these large cities as attractive places to build up a new life. As I have already explained, I am more optimistic about levels of elite mobility in early-imperial Sicily than Wilson.

I started my survey of the cities of Roman Sicily with a brief reference to the ongoing debate concerning the economic and social impact of Roman rule on the island. As far as I can see, there is little point in trying to decide whether the decline of many cities of the interior districts and that of a smaller proportion of the coastal cities was a positive or a negative development. What cannot be denied, however, is that the five-hundred-year period between 300 BCE and 200 CE witnessed a drastic reconfiguration of the urban system of Sicily, and it also seems clear that this transformation was driven by Sicily's integration within the political economy of the Roman Empire.

For the gymnasium of *Phintias* see *IG* XIV, 256 (first century BCE). La Torre 2005: 113 speculates that the conquest of Egypt may have had a negative impact on *Phintias* because it reduced the importance of the city as an exporter of grain, but this theory cannot explain why *Phintias* declined much more severely than *Agrigentum*. The harbour of ancient *Agrigentum* (cf. Strabo 6.2.5) has not been excavated, but large amounts of imported ceramics (e.g. Malfitana et al. 2013: 431–432) suggest strong maritime connections.

Appendix: Cities of Roman Sicily

Cities and communities mentioned in Pliny the Elder's Survey of Sicily

Very Large Cities (> 80 ha)

- Agrigentum (Agrigento): urban area c. 625ha according to Fischer-1. Hansen et al. (2004), but area enclosed by the city walls 450 ha according to Hansen (2006: 107) and Bordonaro (2012: 136). Built-up area of Classical city c. 255 ha according to Hansen (2006: 44 n. 36); c. 250 ha to judge from Belvedere & Burgio (2012: Fig. 41). Area occupied by Roman city 80-100 ha according to Wilson (1990: 170); c. 100 ha according to Wilson (1996: 152). As pointed out by Belvedere et al. (2010-2011: 210-211), the survey data point to 'un notevole restringimento dell'area urbanizzata della città romana rispetto alla città di età greca'; see also Bordanaro (2012: 137). On Rupe Atenea (in the north-eastern part of the walled area) no materials postdating the third century BCE have been found (Wilson 1988: 178), but since some of the original soil seems to have been removed, it remains hazardous to draw any conclusion concerning the occupational history of this part of the city (Bordonaro 2012: 136).
- Catina (Catania): area enclosed by sixth-century city wall c. 34 ha accord-2. ing to Tortorici (2008: 118), but 60-65 ha according to Frasca (2015: 169). Area occupied by Roman Catina 110 ha according to Wilson (1988: 143 n. 177); 128 ha or 130 ha according to Wilson (1990: 171) and (1996: 151 n. 92), but his map (1990: Fig. 134.2) shows an area of approximately 115 ha. In part because there is no evidence to suggest that the Roman city extended southward beyond the Castello Ursino, Privitera (2009: 49 and 58) regards Wilson's estimate of 130 ha as being on the high side. Cf. Tortorici (2008: 93-103) for a good discussion of the circus, which was manifestly extraurban. Since there is no evidence to suggest that the Roman city extended westward beyond the modern Via Plebiscito (Privitera 2009: 49), the area occupied by early-third century Catina might not have been much larger than the 78 ha enclosed by the wall of the late fifteenth century (Mazza 2008: 180). For all these reasons it seems wise to lower Wilson's estimate to c. 90 ha. It was one of the most vibrant cities of Roman Sicily according to Branciforti (2010: 246).
- 3. Lilybaeum (Marsala): size of walled and inhabited area 80 ha according to Wilson (1988: 143, n. 177); 77 ha according to Wilson (1990: 171) and (1996: 152); c. 90 ha to judge from Giglio (2006: Fig. 61).
- 4. *Syracusae*: area enclosed by Archaic and fifth-century city wall (*Ortygia*

plus Achradina) c. 135 ha to judge from Basile (2012: 205-209). Built-up area 150 ha in late fifth century BCE, rising to 200 ha in Hellenistic period according to Fischer-Hansen et al. (2004: 228), but possibly as large as 325ha in the (late-Classical or Hellenistic) period of maximum expansion according to Muggia (1997: 58) and Hansen (2006: 42), both following Drögemüller (1969: 113-114). A recent re-examination of the boundaries of the Hellenistic city (Basile 2012: 212–216) confirms this estimate as being of the right order of magnitude. Area occupied by Roman city c. 100 ha according to Wilson (1988: 143, n. 177) but 280 ha according to Wilson (1990: 171), after abandonment of the area north of the decumanus running east and west from Piazza della Vittoria (Wilson 1990: 39). Only 245 ha to judge from Wilson (1990: Fig. 134.1), but since Ortygia no longer was a residential quarter in late-republican and early-imperial times, this estimate must be lowered to c. 200 ha. A recent survey of all of the archaeological evidence relating to Roman Syracuse (Piazza 2009) has confirmed Wilson's reconstruction as basically correct. Basile (2012) argues that the ancient isthmus linking Ortygia and Achradina occupied the same place as its modern successor and that the area of the present-day Borgata Santa Lucia was a peripheral quarter dominated by workshops rather than a residential area. Dimensions of Augustan amphitheatre: 140×119m.

Large Cities (40-80 ha)

- 5. *Messana* (Messina): built-up area of Archaic and Classical city c. 50 ha according to Scibona (1986: 453); 50–60 ha according to Fischer-Hansen et al. (2004: 235); area enclosed by city wall of early fourth-century BCE c. 25 ha to judge from Wilson (1990: Fig. 134.3). Area occupied by Roman city, which was situated to the north of the Archaic and Classical city, perhaps 100 ha according to Wilson (1990: 382 n. 78) and (1996: 152). However, if the built-up area of Roman times was bounded by the modern Via Cannizzaro on the south and the Via Pozzo Leone on the north, and if it did not extend westward beyond the Colle della Caperrina (Scibona 1986: 455; cf. Fuduli 2012: Fig. 14), the Roman city must have occupied approximately the same area as that enclosed by the Norman city walls (c. 60 ha).
- 6. Thermae Himeraeae (Termini Imerese): size of area enclosed by the walls of the fourth century BCE unknown, but perhaps no more than 15 ha to judge from the location of the cemeteries and the lack of Classical and Hellenistic finds in the area of the Colle Santa Lucia. Since the steep eastern and south-eastern slopes of the acropolis are unlikely to have

been built over, the built-up area might have been only c. 13.5 ha; cf. the hypothetical map in De Vincenzo (2013: Fig. 33). Size of area occupied by Roman city 60 ha according to Wilson (1985: 143 n. 177) but 52 ha according to id. (1990: 382, n. 78), following expansion in the early-imperial period (ibid. 170). Built-up area, including acropolis, approximately 50 ha to judge from Chiovaro & Rondinella (2017: Fig. 1). For the southern and eastern limits of the Roman city see Burgio (2008). Dimensions of amphitheatre 99×75.5 m. (Belvedere 1997).

Medium-Sized Cities (20–40 ha)

- 7. Panormus (Palermo): walled area c. 40 ha according to Wilson (1988: 143, n. 177); 48 ha according to id. (1990: 171), but only 36 ha to judge from the map in Belvedere (1987) and 34 ha to judge from Spatafora (2003: Tav. CLXXXIV). There is no evidence for the existence of suburban quarters during the early Empire (Wilson 1988: 155). As noted by Spatafora (2003: 1175–1176), some scholars arrive at a higher estimate by placing the Neapolis outside the wall circuit of the Cassaro, but the current consensus is that this quarter is to be identified with the eastern part of the Cassaro (Belvedere 1987: 290–291). Substantial amounts of pottery of the fourth and third centuries BCE have been found in the area between the Basilica San Francesco d'Assisi, the Via Alloro and the western edge of the Piazza Marina (di Stefano 1997: 592–593), but the small size of this area (c. 3.5 ha) militates against identification with an extra-mural Neapolis.
- 8. *Tauromenium* (Taormina): area enclosed by Classical city walls c. 65ha according to Fischer-Hansen et al. (2004: 232). Built-up area of Roman city 28ha according to Rizzo (1928: 301); 29ha according to Wilson (1990: 382, n. 78); but only c. 20ha to judge from Campagna (2014: Fig. 2), if the empty parts of the hill on which the theatre stands are excluded. For a detailed plan of the western part of the city see Campagna (2008). Diameter of Roman theatre 109m.

Small Cities (< 20 ha) and Non-urban Communities

- 9. Aceste: unlocated (Wilson 1985: 335). In view of the connections with the Trojan legend a location in western Sicily seems likely. Zehnacker (2004: 192 and 206) speculates that Pliny's Acestaei might have inhabited a district near Segesta which did not form part of the Latin community of the Segestani.
- 10. Acrae (near Palazzolo Acreide): walled (and inhabited?) area of Archaic, Classical and Hellenistic city 35ha according to Fischer-Hansen et al.

- (2004:190). A shadow of its former self, but still one of the more important small towns of Roman Sicily according to Wilson (1985: 201) and id. (1990: 154). Few traces of occupation during Republic or early Empire according to Chowaniek et al. (2009: 123).
- Aetna/Inessa: unlocated (Fischer-Hansen et al. 2004: 185). Sometimes identified with the settlement of Cività di Paternò, whose walled area occupied an area of 24ha. At this site houses of the sixth and fifth centuries have been excavated, but it seems to have been abandoned in the mid-fourth century BCE. Dimensions of inhabited area at least 850×535 m. (45+ ha) if Aetna/Inessa was at Poggio Còcola/Poira, where remains of another urban centre of the sixth and early fifth centuries BCE and traces of a small Hellenistic settlement have been found (Spatafora 1997: 1278; Maniscalco 2012: 46-48). So far no late-Hellenistic or Roman ceramics have been detected at this site (Rizza 1959: 473, n. 290). Since the dates of these settlements make identification of either with the Aetna of the Verrine orations problematic, it is tempting to follow Beloch (1914: 129, n. 2), Wilson (1990: 45) and Uggeri (2004: 249) in placing Aetna at the site of modern Paternò, which is usually identified with Hybla Gereatis. Cf. Strabo's claim (6.2.3) that Aetna/Inessa was 80 stadia (14.25 km) from Catina. Hybla might have occupied the site of Cività until 339 BCE (cf. Diod. 16.82.4), and the inscribed statue base from Paternò mentioning Venus Victrix Hyblensis (CIL x, 7013) might be explained as an example of neighbouring communities sharing the same cult. If Paternò's Classical/Hellenistic predecessor extended from the Collina Storica to the Falconieri quarter (Maniscalco 2012: 52), it would have occupied an area of at least 15 ha. Most finds from the city have been dated to the fifth-to-second centuries BCE.
- 12. *Agathyrnum* (near Capo d'Orlando): perhaps a subordinate settlement in the territory of *Tyndaris* rather than a self-governing town (Pais 1888–1889: 230–231; Manganaro 1988: 20; Pinzone 2004: 19; Fasolo 2013: 95–96).
- 13. Agyrium (Agira): a city of lesser importance (ἐν ταῖς ἐλάττοσι πόλεσιν) according to Diod. 16.83.3. Walled area perhaps c. 30 ha if the theatre was intra-urban and if the entire plateau below the acropolis was fortified (cf. Patané 1992). Occupied from Archaic period until third century CE (Bonanno 2012).
- 14. Assorus (Assoro): walled area c. 16 ha to judge from Wilson (1990: Fig. 129.3). Most finds recorded in and around Assoro are Classical or Hellenistic. At least one early-imperial burial; some lamps of the second century CE.

15. *Bidis*: possibly to be identified with Poggio Biddini (di Stefano 1976–1977); small according to Cic., 2 *Verr*. 2.53, but equipped with a *palaestra* (ibid. 54).

- 16. *Cacyrum*: 15 ha if to be identified with Monte Saraceno di Ravanusa (Adamesteanu 1957; Calderone 1996: 2 and 42; Fischer-Hansen 2004: 180).
- 17. *Calacte* (Caronia and Marina di Caronia): the *Galatini* of Pliny's survey are usually identied as the inhabitants of *Calacte* (Wilson 1990, 159). Built-up area c. 20 ha according to Collura 2012: 6 (based on maximum width and maximum length), but only c. 8 ha to judge from his map on p. 2. According to Collura (2012: 4), the hill top settlement of Caronia was abandoned at the end of the first century CE. Its place was taken by a new coastal settlement which occupied c. 10 ha (ibid. 5).
- 18. *Camarina* (Camarina): area enclosed by wall circuit of fourth century 150 ha according to Fischer-Hansen et al. (2004: 204); 145 ha according to Muggia (1997: 97); built-up area 72 ha according to Muggia (1997: 97). During the first century BCE only the area between the temple and the *agora* was used for habitation. In its death-throes by the early Augustan period according to Wilson (1990: 37).
- 19. *Centuripae* (Centuripe): built-up area 28 ha according to Wilson (1990: 382, n. 78 and 80), on the assumption that the Roman city covered about the same area as its modern successor, but only c. 18 ha to judge from Wilson (1990: Fig. 129.7). Cf. Frasca (2006: 193, Fig. 1) and Patané (2006: Fig. 4). Excavations carried out near the end of the western spur of the hill and on the eastern spur immediately to the east of the Monte Calvario have revealed remains belonging to peripheral quarters of the Hellenistic city which were destroyed in the first century BCE and not reoccupied (Patané 2006 and 2010).
- 20. *Cephaloedium* (Cefalù): referred to as a 'small town' (*polichnion*) by Strabo 6.2.1; walled area c. 10.5 ha according to Wilson (1990: 159 and 382, n. 78).
- 21. *Cetaria*: small according to Cic., 2 *Verr*. 3.103. Identified with Tonnara di Scopello by Holm (1898: 481), and more recently by Internicola & Corso (1993), but tentatively placed at Terrasini/San Cataldo by Purpura (1974: 58–59), and Wilson (1990: 145), and at Castellamare del Golfo by Maurici (2003: 887). Purpura (1982: 60 n. 35) concludes that the whereabouts of *Cetaria* remain uncertain. Gargini & Vaggioli (2003: 99) argue that *Cetaria* cannot have been the same place as the *Cytattarium* of the Entella decrees.
- 22. *Drepanum* (Trapani): walled area c. 16.5 ha if the Punic walls followed the same course as the Normannic fortifications (del Bono & Nobili 1986: 13), but perhaps c. 18 ha if the Roman city extended westward beyond the

- modern Via Torrearsa, as argued by Filippi (2005: 126); cf. de Vincenzo (2013: 97, Fig. 35); but see the doubts expressed by Maurici (2009).
- Echetla: in border region between Leontini and Camarina (Diod. 20.32.1–2, 23. but the *Codex Florentinus* has *Neaitinen* instead of *Leontinen*); sometimes identified with Terravecchia di Grammichele, a tiny settlement of c. 6 ha (including the acropolis), but this identification rests solely on similarity with the medieval toponym Occhiolà (cf. Manni 1976: 609), and Terravecchia seems to have been abandoned in the late fourth or early third century BCE (Orsi 1897b: 203–206; Patané 2000: 95; Barra Bagnasco 2006: 36; Piazza 2009: 77; Camera 2010: 117). Schubring (1873: 112-113) identified Echetla with modern Vizzini or Licodia. In the former town Orsi's investigations revealed graves of the third-to-second centuries BCE (Orsi 1902; Pelagatti et al. 1996: 569 n. 354). Licodia peaked in the sixth and early fifth centuries BCE and seems to have been abandoned after the mid-fourth century BCE (Bonacini 2007: 135). Since Echetla was evidently a place of major strategic importance (Pol. 1.15.10), the stronghold of Piano dei Casazzi (10 ha) might also be considered as a possible candidate.
- 24. *Engyum*: usually identified with Troina (Wilson 1990: 145; Manganaro 1996: 130; Hansen & Nielsen 2004: 191); area enclosed by wall of fourth century BCE c. 20 ha to judge from Wilson (1990: Fig. 129.4), but c. 15 ha if the fortifications extended from the Piazza Conte Ruggero to the Piazza Santa Lucia (like the Normannic fortress) and if the Roman baths at the site of the ruined church of the Madonna della Catena were just outside the wall circuit (Bernabò Brea 1975: 17). According to Wilson (1990: 145), much more early-imperial material was found at Troina than at Assoro.
- 25. Entella: walled area 40 ha according to Nenci (1996: 129); cf. Wilson (1990: Fig. 129.14). According to Vaggioli (2001: 61), the city of the fourth and early third centuries BCE comprised an area of 15 ha which was densely occupied and a neighbouring zone of 12 ha where artefact density was markedly lower. During the late third and early second centuries BCE new houses were built in the southern half of the eastern part of the plateau, but between the early first century BCE and the mid first century CE, the settlement contracted to a small area near the site of the medieval castle. From the mid or late first century Entella was completely abandoned (Canzanella 1996: 227; Michelini 2003). No monumental buildings erected in Roman period according to Nenci (1996: 127).
- 26. *Ergetium*: unlocated according to Wilson (1985: 335) and Hansen & Nielsen (2004: 176–177). Candidates include Caltagirone (Zehnacker 2004: 202), Ramacca (Manni 1976: 615), Grammichele (Manganaro 1996: 133–134) and Ferla, where a Christian epitaph referring to the *ekklesia Ergitane*

has been detected (cf. Polyaen. 5.6, suggesting that *Ergetium* was close to the Laestrygonian plain). Giangiulio (1983: 825, n. 120) prefers a location somewhere to the north-west of Ferla.

- 27. *Eryx*: area enclosed by Elymian-Punic walls c. 9.5 ha to judge from Blasetti Fantauzzi & de Vincenzo (2012). Although Pliny mentions the *Erycini* among the land-locked communities of Roman Sicily, *Eryx* might have become a *vicus* of *Segesta* in the imperial period (Wilson 1990: 154). Sparsely inhabited according to Strabo 6.2.6; abandoned according to De Vincenzo (2018: 230–231).
- 28. *Gelani*: descendants of the old population of *Gela*, who formed a separate community from *Phintias* (Manganaro 1980: 461 n. 225).
- 29. *Hadranum* (Adrano): area enclosed by wall of early fourth century BCE, 60 ha according to Wilson (1988: 197) and Fischer-Hansen et al. (2004: 183). About half of this area was built-over. Unimportant but not deserted in imperial times according to Wilson (1988: 197); Roman city smaller than Hellenistic predecessor but reasonably prosperous according to id. (1990: 151) but the only evidence of urban continuity within the walled area is *AE* (1962: 314), which *may* refer to local decurions taking action in regard to an *aedes* (the inscription has the enigmatic abbreviation D^R D^R). Walled area no longer inhabited after second century BCE, but area near extramural bath complex reoccupied in mid-imperial period or Late Antiquity according to Arcifa (2009: 186–190). In a forthcoming article Massimo Cultraro argues that shortly after 263 BCE a new town (occupying 45 ha) was built immediately to the NE of the old city. He thinks this new town survived until the late Flavian or early Trajanic period.
- 30. *Halaesa* (near Castel di Tusa): referred to as a 'small town' (*polichnion*) by Strabo 6.2.1. Built-up area 16 ha according to Wilson (1990: 382 n. 78). According to Wilson (1988: 176) and id. (1990: 150), *Halaesa* experienced its heyday during the late Republic and was in slow decline from the time of the middle Empire. Burgio (2007: 60) interprets Strabo 6.2.1 as pointing to 'una contrazione nella prima età imperiale', but also sees signs of continued urban vitality.
- 31. *Halicyae* (Salemi): to judge from Vecchio et al. (2003) occupation of the town became very sporadic after the first century BCE.
- 32. *Haluntium* (San Marco d'Alunzio): walled area 15 ha. According to Wilson (1995–1996: 84) the city expanded beyond its wall circuit in late-Hellenistic times, but went into decline in the first century CE.
- 33. *Henna* (Enna): to judge from Wilson (1990: Fig. 129.2), the rock of Enna occupied an area of c. 100 ha, but as Wilson points out, it is uncertain how densely settled this area was in Antiquity. In the eleventh and twelfth

centuries CE, when Enna had become the most important city of central Sicily, the built-area was no larger than c. 40 ha (Patti 2016). The only archaeological evidence for the Roman city consists of (unpublished) finds of early-imperial terra sigillata from two sites in the northern part of the city (Valbruzzi & Giannitrapani 2015: 42). Based on the size of the subterranean *columbaria* of early-imperial and late-Roman times Valbruzzi & Giannitrapani (2015: 43) suggest that Enna might have occupied the entire plateau, but Strabo 6.2.6 reports that the city was sparsely inhabited.

- 34. *Herbessus* (Montagna di Marzo): 19 ha according to Wilson (1990: 382 n. 78). Wilson (1990: 52) points out that burials stop after the first century CE.
- 35. *Herbita*: possibly to be identified with the settlement of Monte Alburchia (Wilson 1990: 149; Gargini & Vaggioli 2003: 105–106; Collura 2016b), which occupied an area of c. 18 ha (Collura 2016b: 14). This settlement seems to have flourished in the fourth and third centuries BCE but to have contracted in the second century BCE.
- 36. Herbula: unlocated.
- 37. *Hippana* (Montagna dei Cavalli): walled area almost 30 ha according to Fischer-Hansen et al. (2004: 201); cf. Vassallo (2012: 210) and Wilson (1990: Fig. 129.13). Inhabited area c. 25 ha.
- 38a. *Hybla Heraea*: most often identified with Ragusa Ibla (Wilson 1990: 152; Hansen & Nielsen 2004: 177). Walled area c. 25 ha to judge from Wilson (1990: Fig. 129.10).
- 38b. *Hybla Gereatis*: usually identified with Paternò (Hansen & Nielsen 2004: 177; Maniscalco 2012: 16), but see above, s.v. *Aetna*. A village ($k\hat{o}m\hat{e}$) in the territory of *Catina* according to Paus. 5.23.6. *Hybla* is also mentioned in a Christian epitaph from Catania which has been dated to the late third century CE (*CIL* X, 7112).
- 39. *Iaetas* (Monte Iato): walled area 50 ha according to Wilson (1990: 382 n. 78), but 40 ha according to Nenci (1996: 129). As pointed out by De Vincenzo (2013: 69), the western part of this area was not built over. In steep decline by mid-second century CE according to Wilson (1995–1996: 108). No longer a fully-functioning 'town' in the accepted sense of that word, but still inhabited according to Wilson (1990: 144).
- 40. *Imachara*: often placed at or near the Rocca di Serlone/di Serro near Nissoria, where a *caduceus* identifying itself as 'the public property of the *Imacharaioi*' was found (Wilson 1990: 145; Manganaro 1996: 144), but there is no trace of an ancient settlement here. Morel (1963: 294) opts for the *contrada* Picinosi, c. 4km north of Assoro. A third possibility is the *contrada* Vaccarra, which was occupied in Classical and late-

Roman/early-medieval times and seems to correspond to the stronghold of *Maqârah/Baqârah* referred to by Al Idrisi (Wilson 2000b: 716; Uggeri 2004: 282; Patti 2011: 69; Collura 2016b: 12). The site of present-day Nicosia has also been suggested as a candidate for *Imachara* (e.g. Beloch 1907). Occupation of this site started in the sixth century BCE and seems to have intensified in the late fourth and early third centuries BCE, when Nicosia's predecessor might have occupied an area of c. 15 ha (Collura 2016b: 11–12). Patti (2012: 200–201) rejects all existing attempts at identification as speculative.

- 41. *Leontini* (Lentini): area enclosed by wall circuit of the sixth century BCE 40 ha according to Fischer-Hansen et al. (2004: 210), but area occupied by city of the fifth-to-third century BCE 60 ha according to Frasca (2012: 176). According to Wilson (1990: 23), the city petered out between 50 BCE and 50 CE.
- 42. *Macella*: area enclosed by Archaic wall 20–25 ha on the plausible assumption that *Macella* is to be identified with Montagnola di Marineo (Gargini & Vaggioli 2003: 102). Habitation no longer urban after destruction in First Punic War according to Spatafora (1994: 94) and (2009).
- 43. *Megara Hyblaea*: area enclosed by Archaic and Classical wall 61 ha but built-up area only 25 ha according to Hansen (2006: 42); area enclosed by late-third century fortifications 12 ha according to Fischer-Hansen et al. (2004: 215). There is some evidence for continued occupation between the early second century BCE and late Antiquity (Vallet et al. 1983; Cacciaguerra 2007), but this was no longer urban. Cf. Wilson (1988: 189).
- 44. *Menae* (Mineo): area enclosed by Archaic wall c. 17 ha to judge from Wilson (1990: Fig. 129.8). Gradually deserted in early Empire according to Messina (1971: 119–120), id. (1979: 17) and Wilson (1990: 52).
- 45. *Murgantia* (Morgantina): area enclosed by walls of Classical and Hellenistic city 78 ha and built-up area 57 ha according to Stone (2014:12). Between 211 BCE and the early 30s BCE the built-up area shrank to about 20 ha, and after the mid-30s BCE Murgantia survived only as a village. Tsakirgis (1995: 143) reports that the latest pottery found at Morgantina consists of Roman wares dateable to the reign of Tiberius or Claudius.
- 46. *Mutyce* (Modica): di Stefano (1982–1983: 339) reports finds of Romanimperial date from the town, and Wilson (1985: 320) suggests that *Mutyce* might have survived until the late second century CE, but the appearance of a large necropolis at near-by Treppiedi in the second century CE (di Stefano 2009) suggests de-urbanisation.
- 47. *Mylae* (Milazzo): inhabited area c. 8ha and area occupied by acropolis c. 4ha during third-to-third centuries BCE to judge from Tigano (2011:

- Fig. 13). The eastern necropolis contains graves of the third-to-first centuries BCE and seems to have gone out of use in the Augustan period; to date the only civic building of early-imperial date within the urban area is a fish-salting establishment which was discovered in *contrada* Vaccarella (near the harbour). See Tigano (2002), (2003) and (2009) and Fuduli (2006). In Classical times perhaps a dependent *polis* controlled by Messana (Fischer-Hansen et al. 2004: 216–217). Under the Empire probably a *vicus* of *Messana* rather than a self-governing city (Beloch 1889: 14–15 and 75; Manganaro 1988: 20; Pinzone 2002: 122 n. 58).
- 48. *Myttistratum* (Monte Castellazzo di Marianopoli?): destroyed in 258 BCE. Walled area 4.5 ha according to Muggia (1997: 102 n. 212). There is evidence of continued occupation after the First Punic War (Fiorentini 1980–1981 and 1984–1985), but this was no longer urban in character.
- 49. *Naxii*: descendants of the old population of Naxos who formed a separate community from *Tauromenium* according to Manganaro (1980: 461 n. 225).
- Netum (Noto Antica): to judge from Arcifa (2005: 16-17, Figs. 2-4), the 50. walls of early-modern Noto enclosed an area of approximately 70 ha, two thirds of which (c. 45ha) were built over. Cf. Wilson (1990: Fig. 129.11) which shows a walled area of c. 55 ha for the Hellenistic-Roman city. Based on ceramic finds Orsi (1897a: 78) suggested that Hellenistic Neaition/ Netum might have been about half as large as its late-medieval and earlymodern successor, without ruling out the possibility that the Greek city might also have occupied the western half of the plateau. According to Wilson (1990: 152–153 and 157), early-imperial Netum was more important than many other land-locked towns of Roman Sicily and perhaps even comparable to Centuripae (ibid. 162), but while minor roads connected the former city with Acrae and Syracuse, and probably also with Helorus or another port on the south-east coast (Uggeri 2004: 16–19), Centuripae was situated on the far more important road from Catina to Henna. There is no archaeological or epigraphic evidence for new public amenities being constructed at Netum after the early second century BCE (Inglese 2014: 94-97). A wealthy citizen of Netum features in Cicero's list of Sicilians who were forced to set up weaving establishments working for Verres (2 Verr. 4.59), but citizens from the small towns of Aetna and Helorus also appear in this list. Two funerary inscriptions of imperial date from the suburban necropoleis, one of which commemorates a land surveyor (Manganaro 1962: 497-499), show that the town continued to be inhabited, but most of the graves discovered in the northern necropolis have been dated to the third or early second centuries BCE (Orsi 1897a: 81). Two

inscriptions from Iasos (I.Iasos 174, second century BCE) and Athens (IG II², 10292, first century CE) demonstrate connections with distant areas (Inglese 2014: 97–98), but there is nothing to suggest that early-imperial or mid-imperial Netum was larger or more important than Halaesa.

- Noae: usually identified either with Monte Catalfaro (Messina 1970; Maniscalco 2005) or with Monte Iudica (Manni 1976: 615-616; Wilson 1985: 335; Fischer-Hansen et al. 2004: 180; rejected as speculative by Privitera 2009: 88). As pointed out by Manganaro (1974–1975: 17), the former site is very close to *Menae* (the distance being only 3.6 km as the crow flies) and might have been a subordinate settlement within the territory of that city. In a later article Manganaro (1996: 135) places Noae at Monte Balchino/contrada Altobrando (west of Mineo), where a gha site has been detected. This settlement was destroyed in the mid-fifth century BCE, but in the mid-fourth century BCE a new agglomeration appeared some 800 m. to the SE of the archaic wall circuit (Bonacini 2007: 56). Uggeri (2000: 282) suggests the Montagna di Ramacca (c. 5.5ha), which was destroyed around 500 BCE and abandoned after the fourth century BCE, but this settlement has also been identified as *Eryke*. Seminerio (1975) identifies Noae with Piano dei Casazzi, a settlement occupying c. 10 ha (Orsi 1907: 489) which flourished until the mid-third century BCE and was abandoned after the second century BCE (Belfiore 2000: 272). Orsi (1907: 489–490) gives the dimensions of the settlement of Monte Iudica, which peaked between 550 BCE and 450 BCE and was abandoned in the late fourth century BCE, as 1,500×50 m. (7.5 ha) and estimates the number of houses as approximately one hundred. The settlement of Monte Catalfaro was of similar size (8–9 ha) if it occupied the gently sloping area surrounding the eastern summit. A dense scatter of ceramics of the fifthto-third centuries BCE has been observed in the western part of this area (Cirelli 1997–1998), and a large Hellenistic necropolis has been detected to the south-east of Monte Catalfaro (Cirelli 1997: 69). There is some evidence for much reduced occupation in the first century BCE and during the Empire (Bonacini 2007: 50).
- 52. *Paropus*: candidates include Monte Porcara (near Bagheria, east of Palermo), a 25 ha site which was abandoned in the mid-third century BCE (Manni 1981: 214–215), and Monte Riparato di Caltavuturo, where occupation came to an end around the turn of the first centuries BCE and CE (Wilson 1990: 145). Monte Riparato has also been proposed as a candidate for the settlement of *Ambica*.
- 53. *Petra*: unlocated (Fischer-Hansen et al. 2004: 220). Diod. 23.18.5 suggests *Petra* was still a walled city in 254 BCE. Tentatively placed at or near Prizzi

by Wilson (1985: 334) but this would put Petra very close to Hippana (Gargini & Vaggioli 2001: 98). Giustolini (1999) identifies the statio Petrina with a 9ha site at Casale di San Pietro (5km east of Castronovo) and Petra with the settlement on Monte Kassar overlooking Castronovo (cf. Manni 1981: 216; Uggeri 2004: 100 and 108; Burgio 2015: 24). This settlement seems to have been unwalled and is believed to have been abandoned in the early fifth century BCE (Carver et al. 2017; but cf. Gargini 2001: 135, for possible traces of Punic re-occupation in the fourth and third centuries BCE). A coin bearing the legend Petrinon found at Cammarata also suggests a location in the eastern part of the Elymian region. Questioning the prevailing view that *Petra* must have been situated near the *statio Petrina*, Gargini (1997) and Gargini & Vaggioli (2001) suggest the anonymous settlement of Monte Pietroso di Camporeale (occupied in the sixth-to-fourth centuries) as an alternative possibility. In the fourth century a small settlement appeared immediately to the north of Monte Pietroso, in the area of the masserie Giardinello and Rapitalà, but sherds of sigillata have also been found on the southern slopes of the hill. The settlement of masseria Rapalità has also been identified as the road station of Longaricum, but the majority view is that this road station was situated near Alcamo (Filippi 2002: 376).

Phinthias (Licata): possibly one of the larger cities of Roman Sicily accord-54. ing to Wilson (1990: 162) but built-up area of Hellenistic city only c. 30 ha to judge from the hypothetical map shown in La Torre (2006: 84, Fig. 2); cf. also La Torre (2017: 166, Fig. 2). Tavola 1 in Toscano Raffa (2017) shows a much larger urban zone of c. 100 ha, but this includes the areas occupied by the suburban necropoleis. To judge from Diod. 24.1.8 Phintias was the small harbour-less town (polismation) referred to by Pol. 1.53.10. While Phintias flourished between the time of foundation (c. 287 BCE) and the mid-first century BCE, recent excavations carried out on the southern slope of the Monte Sant'Angelo, where one of the residential quarters of the city was located, have revealed that many houses were abandoned during the second half of the first century BCE. Although nothing is known about developments in the lower city, La Torre (2008: 8) interprets the data available at present as indicating that the city experienced a severe contraction from the Augustan period, declining into 'un piccolo borgo nei pressi del porto'. Cf. id. (2005: 113).

55. *Schera*: small *civitas* according to Cic., 2 *Verr*. 3.103. Traditionally identified with Montagna Vecchia di Corleone, where a walled settlement occupying between 25 and 30 ha has been identified (Spatafora 1997: 1279–1281; Gargini & Vaggioli 2003: 100). Cf. Cutroni Tusa (2016: 220) who provides a

higher estimate of 40 ha for the walled area. However, as pointed out by Gulletta (1992: 382–383) and by Spatafora (1997: 1279–1280), this identification runs up against the difficulty that this site peaked in the sixth and fifth centuries BCE, with only sporadic evidence for continued occupation in the Hellenistic period (but see Trasselli 1969 for the view that the site was certainly occupied in the fourth and third centuries BCE), and no Roman or Byzantine material. Bronze coins discovered at the Montagna Vecchia have the legend *Kersinōn* (Cutroni Tusa 2016: 222–223) perhaps referring to a group of mercenaries. In the first century BCE two small nuclei (occupying areas of c. 2.2 ha and c. 1.8 ha respectively) appeared in the area below the Castello Sottano and Castello Soprano of Corleone (Badami & Carta 1993: 10–13).

- 56. Segesta: area enclosed by wall circuit of fifth century BCE 55 ha, and area enclosed by upper wall circuit of second or early first century BCE 32 ha according to Wilson (1990: 382 n. 78) and id. (1995–1996: 116–117); 35 ha according to Nenci (1996: 129). Theatre no longer kept in repair after early first century CE according to Wilson (1990: 154), who also points to the lack of ARS among surface finds on the hill of Segesta. As noted by Wilson (1988: 96), Aquae Segestanae emerged as the most important settlement of the region from the mid or late first century CE. The latter settlement occupied an area of only 3 ha (Bernardini et al. 2000: 113 and 117).
- 57. Selinuntii: Selinus was abandoned after its destuction during the First Punic War (cf. Strabo 6.2.6). As noted by Manganaro (1980: 461 n. 225), the Selinunti who appear in Pliny the Elder's list must be the descendants of the Greek community. During the Empire the secondary settlement of Thermae Selinuntinae (Sciacca) emerged as the most important central place of this region.
- 58. Semelitani: unlocated (Wilson 1985: 335).
- 59. *Soluntum* (Solunto): built-up area 14.5 ha according to Wilson (1990: 159), 18 ha according to di Leonardo (2007: 25); substantially a town of the second and early first century BCE according to Wilson (1990: 23–24); decaying in early Empire according to Tusa (1968), Wilson (1988: 201) and Wolf (2012).
- 6o. *Symaethii*: unlocated, but presumably in the region of the river *Symaethus* (Wilson 1985: 335); cf. Ptol. 3.4.7: *Dymethus*?
- 61. *Talaria*: unlocated; a "city of the Syracusans" according to Steph. Byz.; near Syracuse according to Wilson (2000b: 727). Pais (1888–1889: 161) suggested a location in the gorge of the river Cassibile; Gubernale Apollo (1912) preferred *contrada La Gebbia-Borgelluzzo* (also known as *contrada Falari*),

- where Greek and Roman coins, sarcophagi and traces of a settlement of the first-to-fourth centuries CE have been detected.
- 62. *Tissa*: unlocated (Wilson 1985: 335); placed in NE Sicily by Ptol. 3.4.7; perhaps to be identified with the Greek settlement at Imbischi-Acquafredda, 6km east of Randazzo, which was destroyed in the third century BCE (cf. Privitera 2005); very small according to Cic. 2 *Verr.* 3.86.
- 63. *Triocala* (Caltabellotta): abandoned from mid-third century BCE according to Panvini (1988–1989) and Wilson (1995–1996: 93).
- 64. *Tyndaris* (Tindari): area occupied by Roman (and Classical?) city c. 14 ha according to Fischer-Hansen et al. (2004: 233); area enclosed by wall of fifth century CE c. 18 ha according to Wilson (1988: 143) but 27 ha according to id. (1990: 171). Built-up area c. 10 ha to judge from Belvedere & Termine (2005: 86, Figs. 1–2); cf. Spigo (2006: 98, Fig. 1).
- 65. *Tyracium/Tyracinae*: on the outskirts of Ispica/Spaccaforno Orsi found a Greek necropolis of the seventh-to-fifth centuries BCE (Orsi 1912: 360–361). Subsequently some ceramics belonging to the second century BCE as well as small amounts of early-imperial sigillata were discovered (Moltisanti 1950: 53). Some 9 km to the north-east of Ispica blocks belonging to a Hellenistic temple have been discovered in the wall surrounding the church of S. Pancrazio/S. Pancrati, and this has led Messina (1991) to identify this area as the site of *Tyracina*. Jean-Pierre Houel reports having seen 'a vast enclosure' belonging to a 'Greek city' in this area, but the graves and catacombs of this locality belong to the third-to-fifth centuries CE.
- 66. *Zanclaei*: Greek community in the territory of *Messana* which remained separate from the *municipium* according to Manganaro (1980: 461 n. 225).

Sicilian Communities Mentioned by Cicero but not by Pliny the Elder

- 1. *Amestratus* (Mistretta): in the imperial period during the Empire a *vicus* of *Halaesa* according to Wilson (1990: 149).
- 2. Apollonia (S. Fratello): built-up area 14–15 ha according to Collura (2016a).
- 3. *Capitium* (Capizzi): in early-imperial times a *vicus* of *Engyum* (Troina?) or *Imachara* (Nissoria?) according to Wilson (1990: 149).
- 4. *Helorus* (Eloro): walled and inhabited area 9 ha according to Fischer-Hansen et al. (2004: 195). Declining but not entirely dead during first centuries of the Empire: Wilson (1985: 198) and id. (1990: 157). Possibly already by the time of Augustus demoted to *vicus* status under the control of *Netum* according to Wilson (1990: 157).
- 5. *Heraclea Minoa* (Platani): area occupied by city of the sixth-to-fourth century BCE 60–70 ha, but area enclosed by Timoleontic wall 30–35 ha according to Fischer-Hansen et al. (2004: 197). In latter period built-up

area c. 20 ha (map 6 on final pages of Gabba & Vallet 1980). Abandoned before or around 20 BCE according to Wilson (1988: 100 and 189).

6. *Ina* (near Porticella di Reitano or at Cittadella di Vendicari?): the *Inenses* appear in Cic., *Verr.* 3.103, and *Ina* (or *Ena*) in Ptolemy 3.4.15. For the possible whereabouts of this locality see Holm (1898: 481–482); Uggeri (1997–1998: 342).

Other Cities Belonging to the provincia Sicilia

- 1. *Cossyra* (Pantelleria): area enclosed by wall of late third or early second century BCE, 2.16 ha according to Orsi (1899: 509). Scattered ceramics suggest that the small town (*polismation*) referred to by Polybius (3.96) occupied the slopes immediately to the west and north-east of the acropolis (ibid. 518). At least one house on the acropolis was abandoned before the mid first century CE (Osanna 2006).
- 2. Gaulos (Gozo): if the Roman city occupied the town centre of present-day Victoria, with the Triq Varjringa as its southern limit (Sagona 2015: 274), it cannot have occupied more than c. 8 ha.
- 3. *Lipara* (Lipari): walled and inhabited area 18 ha according to Wilson (1990: 171) and id. (1996: 152).
- 4. *Melita*: the Roman city seems to have occupied the area of the medieval fortress and the adjacent areas immediately to the south and south-west. If the Roman city was delimited by the Triq Santa Rita to the south and by the Tri Nikol Sawra on the east, it cannot have occupied more than c. 25 ha (Sagona 2015: 273). Cf. Bluet (1967: 39) for the view that the area occupied by the Roman city was roughly three times the size of the fortress of Mdina, which occupies an area of 6.65 ha.

Bibliography

Adamesteanu, D. (1957). 'Monte Saraceno ed il problema della penetrazione rodiocretese nella Sicilia meridionale', *Archeologia Classica* 8: 121–146.

Adamesteanu, D. (1960). 'Gela', in: *Enciclopedia dell'Arte Antica, Classica e Orientale*, vol. 3. Rome: 798–804.

Albanese, R.M. (2003). Sicani, siculi, elimi: forme di identità, modi di contatto e processi di trasformazione. Milan.

Amato, F. (2012). 'Prospettive di ricerca sulla produzione vitivinicola antica a Licata (Agrigento)', in: A. Ciacci, P. Rendini & A. Zifferero (eds), *Archeologia della vite e del vino in Toscana e nel Lazio*. Florence: 307–348.

Arcifa, L. (2005). 'Gli ordini mendicanti e la città: sviluppo urbanistico a Noto nel basso

- medioevo', in: D. Ciccarelli & S. Sarzana (eds), *Francescanesimo e cultura a Noto*. Palermo: 7–17.
- Arcifa, L. (2009). 'Un area di strada nel medioevo: la media valle del Simeto', in: G. Lamagna (ed.), *Tra Etna e Simeto. La ricercha archeologica ad adrano e nel suo territorio.* Catania: 185–199.
- Bacci, G.M. and G. Tigano (1998–2003). Da Zancle a Messina. Un percorsdo archeologico attraverso gli scavi, vol. 1 and 11.1 and 11.2. Messina.
- Bacci, G.M., P. Coppolino and G. Sofia (2009). *La necropoli di Abakainon. Primi dati.* Messina.
- Badami, A. and M. Curta (1993). 'Le vicende storiche ed urbanistiche', in: id. (eds), *Storia urbanistica della città di Corleone*. Palermo: 7–52.
- Barra Bagnasco, M. (2006). 'Risultato di scavi', in: ead. (ed.), *Da Terravecchia di Gram-michele a Occhiolà*. Alessandria: 1–54.
- Basile, B. (2012). 'L'urbanistica di Siracusa greca: nuovi dati, vecchi problemi', *Archivio Storico Siciliano* 47: 177–224.
- Belfiore, R. (2000). 'Il centro abitato indigeno-ellenizzato di Piano dei Casazzi (Mineo)', *Sicilia Archeologica* 33: 259–276.
- $Beloch, K.J. \ (1889). \ 'La popolazione della Sicilia antica', {\it Archivio Storico Siciliano} \ 14:1-83.$
- Beloch, K.J. (1907). 'Herbita', in: *Miscellanea di archeologia, storia e filosofia dedicata al Prof. Antonino Salinas*. Palermo: 223–224.
- Beloch, K.J. (1914). *Griechische Geschichte, zweite neugestaltete Auflage, zweiter Band.* Strassburg.
- Belvedere, O. (1987). 'Appunti sulla topografia antica di Panormo', *Kokalos* 33: 289–303. Belvedere, O. (1997). 'Termini Imerese', in: *Enciclopedia dell'Arte Antica*, *secondo supplemento*, vol. 5. Rome.
- Belvedere, O., A. Burgio, R. Macaluso and S. Rizzo (1993). *Termini Imerese. Ricerche di Topografia e di archeologia urbana*, 2 vols. Palermo.
- Belvedere, O., A. Burgio, D. Lauro and M.A. Papa (2010–2011). 'Una rilettura topografica e urbanistica di Agrigento da dati aerofotografici. Metodologie e risultati preliminari', in 100 Anni di Archeologia Aerea in Italia, Archeologia Aera 4–5: 207–214.
- Belvedere, O. and A. Burgio (eds) (2012a). Carta archeologica e sistema informativo territoriale del Parco Archeologico e Paesaggistico della Valle dei Templi di Agrigento. Palermo.
- Belvedere, O. and A. Burgio (2012b), 'Metodologia dell'indagine: i. la prospezione archeologica', in Belvedere and Burgio 2012a: 51–60.
- Belvedere, O. and E. Termine (2005). 'L'urbanizzazione della costa nord-orientale della Sicilia e la struttura urbana di Tindari', in: *Omni pede stare. Saggi architettonici e circumvesuviani in memoriam Jos de Waele*. Naples: 85–91.
- Bérard, J. (1957). La colonisation grecque de l'Italie méridionale et de la Sicile dans l'Antiquité, 2nd edition. Paris.

Bergemann, J. (2018). 'Vici, Villen und die Agrarproduktion in Sizilien im Hellenismus und in der Kaiserzeit. Archäologischer und geophysikalischer Survey in Vergleich: Gela, Agrigent, Kamarina', in: O. Belvedere and J. Bergemann (eds), Römisches Sizilien: Stadt und Land zwischen Monumentalisierung und Ökonomie, Krise und Entwicklung. Palermo: 31–45.

- Bernabò Brea, L. (1975). Che cosa conosciamo dei centri indigeni della Sicilia che hanno coniato monete prima dell'età di Timoleonte. Naples.
- Bernardini, S., F. Cambi, A. Molinari and I. Neri (2000). 'Il territorio di Segesta fra l'età arcaica ed il Medioevo. Nuovi dati dalla carta archeologica di Calatafimi', in: *Terze Giornate internazionali di studi sull'area elima*, Pisa-Gibellina: 89–133.
- Bintliff, J. (2018). 'Rural Sicily and Achaea under the impact of Rome', in: O. Belvedere and J. Bergemann (eds), *Römisches Sizilien: Stadt und Land zwischen Monumentalisierung und Ökonomie, Krise und Entwicklung.* Palermo: 409–420.
- Blasetti Fantauzzi, C. and S. de Vincenzo (2012). 'Nuove indagini alla cinta muraria di Erice (TP). Le campagne di scavo 2010 e 2011', *Fasti Online* 272: (e-publication).
- Blouet, B.W. (1967). A Short History of Malta. New York.
- Bonacini, E. (2007). Il territorio calatino nella Sicilia imperiale e tardoromana. Oxford.
- Bonanno, C. (1993–1994). 'Scavi e ricerche a Caronia e a S. Marco d'Alunzio', *Kokalos* 39–40: 953–985.
- Bonanno, C. (2012). 'Agira', in: C. Bonanno & F. Valbruzzi (eds), *Mito e archeologia degli Erei*. Palermo: 44–48.
- Bonanno, C. and L. Arcifa (2008–2009). 'Nuovi scavi a San Marco d'Alunzio (1997–1998)', *Kokalos* 47–48: 599–624.
- Bonanno, C. and G. Perrotta (2008), 'Cronologia e considerazioni', in: C. Bonanno (ed.), *Apollonia. Indagini archeologiche sul Monte di San Fratello, Messina, 2003–2005.* Rome: 81–82.
- Bonora Mazzoli, G. (2002). 'Approdi della Sicilia occidentale. Considerazioni topografiche', in: M. Khanoussi, P. Ruggeri and C. Vismara (eds), *L'Africa romana*. *Atti del XIV convegno di studio*, 7–10 *dicembre* 2000, *Sassari*. Rome: 1041–1052.
- Bordonaro, G. (2012). 'I risultati dell'indagine, i: dalla città greca alla città romana e medievale', in Belvedere & Burgio 2012a: 129–137.
- Branciforti, M.G. (2010). 'Da Katane a Catina', in M.G. Branciforti & V. La Rosa (eds), *Tra lava e mare. Contributi all'archaiologhia di Catania*. Catania: 135–258.
- Burgio, A. (2007). 'Il territorio di Alesa: prime considerazioni sul popolamento di età repubblicana e alto imperiale', in: C. Miccichè, S. Modeo & L. Santagati (eds), *La Sicilia romana tra Repubblica e Alto Impero, Atti del Convegno di Studi, Caltanissetta* 20–21 maggio 2006. Caltanissetta: 58–71.
- Burgio, A. (2008a). Il paesaggio agrario nella Sicilia ellenistico-romana. Alesa e il suo territorio. Rome.
- Burgio, A. (2008b). 'Thermae Himeraeae: aggiornamenti e nuove osservazioni', *Rivista di Topografia Antica* 18: 127–140.

- Burgio, A. (2012). 'Il progetto "Cignana" (Naro-Palma di Montechiaro, Sicilia centromeridionale). Prospezione archeologica intorno alla villa romana di Cignana. Primi dati sulle dinamiche del popolamento antico', in: J. Bergemann (ed.), *Griechen in Übersee und der historische Raum, Internationales Kolloquium Universität Göttingen*. Rahden, Westf.: 127–139.
- Burgio, A. (2015). 'Le direttrici viarie dell'antichità tra Palermo e Agrigento', in: A. Margagliotta (ed), *Strada Paesaggio Città: la città in estensione tra Palermo e Agrigento*. Rome: 23–24.
- Cacciaguerra, G. (2007). 'Megara Hyblaea (Augusta, SR) tra l'età tardo imperiale ed il Bassomedioevo', *Archeologia Medievale* 34: 269–281.
- Calderone, A. (1996). Monte Saraceno di Ravanusa: un ventennio di ricerche e studi. Messina.
- Camera, M. (2010). 'Terravecchia di Grammichele. La necropoli di Casa Cantoniera (scavi 1988)', in: M. Frasca (ed.), *Nelle terre di Ducezio. Monte Catalfaro—Terravecchia di Grammichele—Valle Ruscello—Contrada Favarotta*. Acireale-Rome: 37–123.
- Campagna, L. (2012). 'Taormina', in: F. d'Andria, P.G. Guzzo & G. Tagliamonte (eds), *Magna Grecia. Città greche di Magna Grecia e Sicilia*. Rome: 169–172.
- Campagna, L. (2014). 'The archaeological map for the reconstruction of the topography of the Greek and Roman city of Taormina', in: *Proceedings of the 3rd International Landscape Archaeology Conference*. Amsterdam (e-publication).
- Campagna, L. and La Torre, G.F. (2008). 'Ricerche sui monumenti e sulla topografia di Tauromenion: un stoà ellenistica nell'area della Naumachia', *Sicilia Antiqua* 5: 115–145.
- Canzanella, M.G. (1993). 'L'insediamento rurale nella regione di Entella dall'età arcaica al VII sec. d.C.: materiali e contributi', in: G. Nenci (ed.), *Alla ricerca di Entella*. Pisa: 197–338.
- Cerchiai, L., L. Jannelli and F. Longo (2002). Città greche della Magna Grecia e della Sicilia. Venezia.
- Chiovaro, M. and M.T. Rondinella (2017). 'Nuove scoperte nelle necropoli di Termini Imerese', *Notiziario Archeologica della Soprintendenza di Palermo* 22 (e-publication).
- Chowaniek, R., with K. Misiewicz & W. Malokowski (2009), 'Acrae antica alla luce di indagini non invasive', *Rivista di Topografia antica* 19: 121–138.
- Cirelli, C. (1997–1998). 'L'insediamento di Monte Catalfaro in epoca ellenistica: alcune considerazioni preliminari', *Kokalos* 43–44: 59–70.
- Collura, F. (2012). 'Kasmenai. Note sull'urbanistica di una città-fortezza' (e-publication).
- Collura, F. (2012b). 'Kalé Akté—Calacte. Una città greco-romana della Sicilia settentrionale (VI secolo a.C.–V secolo d.C.). Lo stato delle conoscenze ed alcune note inedite' (e-publication).
- Collura, F. (2016a). 'Ricerche sul Monte Vecchio di San Fratello (ME), antica Apollonia' (e-publication).

Collura, F. (2016b). 'Herbita, *civitas honesta et antea copiosa* (Cicerone, *In Verrem* 2.3.75). Studi per l'identificazione del sito' (e-publication).

- Congiu, M. (2015). 'The necropoleis of Gela: updated researches and topographical observation', in: P.M. Militello and H. Öniz (eds), SOMA 2011, Proceedings of the 15th Symposium on Mediterranean Archaeology, held at the University of Catania 3–5 March 2011. Oxford: 529–533.
- Cutroni Tusa, A. (2016). 'Schera ed il decreto A1 di Entella. Montagna Vecchia e le sue monete', in: E. Lattanzi and R. Spadea (eds), *Se cerchi la tua strada verso Itaca ... Omaggio a Lina Di Stefano*. Rome: 219–224.
- del Bono, R. and A. Nobili (eds) (1986). *Il divenire della città. Architettura e fasi urbane di Trapani*. Trapani.
- de Miro, E. (1958). 'Heraclea Minoa. Scavi eseguiti negli anni 1955–56–57', *Notizie degli Scavi di Antichità* 12: 232–287.
- de Miro, E. (1966). 'Heraclea Minoa. Risultati archeologici e storici dei primi scavi sistematici nell'area dell'abitato', *Kokalos* 12: 221–233.
- de Vincenzo, S. (2013). *Tra Cartagine e Rome. I centri urbani dell'eparchia punica di Sicilia* tra VI e I sec. a.C. Berlin.
- de Vincenzo, S. (2018). 'Topographische und urbanistische Merkmale der elymischen Siedlungen in römischer Zeit', in: O. Belvedere and J. Bergemann (eds), Römisches Sizilien: Stadt und Land zwischen Monumentalisierung und Ökonomie, Krise und Entwicklung. Palermo: 225–240.
- di Leonardo, L. (2007). 'Solunto', in: F. Spatafora & S. Vassallo (eds), *Memorie dalla terra.*Insediamenti ellenistici nelle vallate della Sicilia centro-settentrionale. Palermo: 25–30.
- di Stefano, C.A. (1982–1983). 'Appunti per la carta archeologica della regione camarinese in età romana', *Kokalos* 28–29: 332–340.
- di Stefano, C.A. (1997). 'Problemi di topografia della città puniche di Sicilia fra il IV e il III sec. a. C.: Panormos', in: *Seconde Giornate Internazionali di Studi sull'area elima*. Pisa: 587–594.
- di Stefano, G. (1976–1977). 'Saggi a Poggio Bidini sul Dirillo', Kokalos 22–23: 647–650.
- di Stefano, G. (2001–2002). 'L'attività di ricerca della Soprintendenza a Camarina e nella provincia di Ragusa fra il 1996 e il 2000', *Kokalos* 47–48: 687–728.
- di Stefano, G. (2009). La necropoli tardoromana di Treppiedi a Modica. Siracusa.
- Drögemüller, H.-P. (1969). Syrakus. Zur Topographie und Geschichte einer griechischen Stadt. Heidelberg.
- Dubouloz, J. (2007). 'Autorité romaine, fermiers de l'impôt et contribuables en Sicile dans les années 70 av. J.-C.', in: J. Dubouloz and J. Pittia (eds), *La Sicile de Cicéron: lectures des Verrines*. Besançon: 147–168.
- Duncan-Jones, R. (1982). The Economy of the Roman Empire. Quantitative Studies, 2 edn. Cambridge.

- Duncan-Jones, R. (1990). Structure and Scale in the Roman Economy. Cambridge.
- Evans, R.J. (2009). Syracuse in Antiquity. History and Topography. Pretoria.
- Facella, A. and R. Olivito (2010). 'Segesta. Area della strada e della piazza triangolare (SAS 3; 2007–08)', *Annali della Scuola Normale Superiore di Pisa. Classe di Lettere e Filosofia, suppl.*, ser. 5, 3/2: 9–21.
- Fasolo, M. (2013). Tyndaris e il suo territorio, 1: Inttroduzione alla carta archeologica del territorio di Tindari. Rome.
- Felici, E. and G. Buscemi Felici (2004). 'Cave costiere nel territorio di Leontinoi', in: M. Frasca (ed.), *Leontini, il mare, il fiume, la città, Atti della giornata di studio, Lentini, 4 maggio* 2002. Siracusa: 27–48.
- Finley, M.I. (1979). Ancient Sicily. London.
- Filippi, A. (2002). 'Da Alcamo a Trapani. L'abitato rurale fra l'età imperial e alto medioevo', in: R.M. Bonacasa Carra (ed.), *Byzantino-Sicula IV. Atti del I congresso internazionale di archeologia della Sicilia bizantina*. Palermo: 375–385.
- Filippi, A. (2005). Un antico porto del Mediterraneo: archeologia e storia di Trapani dall'età arcaica a quella bizantina. Erice.
- Fiorentini, G. (1980–1981). 'Ricerche archeologiche nella Sicilia centro-meridionale', *Kokalos* 26–27: 581–600.
- Fiorentini, G. (1984–1985). 'Recenti scavi a Marianopoli', Kokalos 30–31: 467–474.
- Fiorentini, G. (1994). 'Gela', in: Enciclopedia dell'Arte Antica, secondo supplemento, vol. 2.

 Rome
- Fiorentini, G. (2002). 'L'età dionigiana a Gela e Agrigento', in: N. Bonacasa, L. Braccesi & E. de Miro (eds), *La Sicilia dei due Dionisi, Atti della settimana di studio, Agrigento* 24–28 febbraio 1999. Rome: 147–167.
- Fischer-Hansen, T., T.H. Nielsen and C. Ampolo (2004), 'Sikelia', in: M. Hansen & T.H. Nielsen (eds), *An Inventory of Archaic and Classical Poleis*. Oxford: 172–248.
- Frasca, M. (2006). 'Centuripe ellenistica. Il quadro generale', in: Osanna and Torelli (2006), 193–199.
- Frasca, M. (2009). Leontinoi. Archeologia di una colonia greca. Rome.
- Frasca, M. (2012). 'Siculi e Greci sui colli di Leontini: un aggiornamento,' in: F. Berlinzani (ed.), *Convivenze etniche, scontri e contattidi culture in Sicilia e Magna Grecia*. Trento: 175–193.
- Frasca, M. (2015). 'Gli scavi all'interno dell'ex monastero dei Benedettini e lo sviluppo urbana di Catania antica', in: F. Nicoletti (ed.), *Catania antica. Nuove prospettive di ricerca*. Palermo: 163–177.
- Fuduli, L. (2006). 'Il territorio dell'antica Mylae in età tardo-antica', Geo-archeologia 2: 15-33.
- Fuduli, L. (2012). 'Saxa rursus inventa. Frammenti di decorazione architettonica di età imperiale dalla città di Messina', Archivio Storico Messinese 93: 185–216.
- Gabba, E. & G. Vallet (eds) (1980), La Sicilia antica, 1.3. Città greche e indigene di Sicilia: documenti e storia. Naples.

Gagliardi, L. (2006). Mobilità e integrazione delle personen ei centri cittadini romani. Aspetti giuridici, I: La classificazione degli incolae. Milan.

- Gargini, M. (1997). 'Petra: riesame della documentazione storica ed archeologica', in:
 A. Corretti (ed.), *Seconde Giornate Internazionali di Studi sull'area elima*. Pisa: 799–805.
- Gargini, M. (2001). 'Il contesto. La Sicilia occidentale dall'età arcaica alla metà del 111 sec. a.C.', in: C. Ampolo & M.C. Parra (eds), *Da un'antica città di Sicilia. I decreti di Entella e Nakone*. Pisa: 131–139.
- Gargini, M. and M.A. Vaggioli (2003). 'Le città ricordate nei decreti', in: A. Corretti (ed.), *Quarte giornate internazionali di studi sull'area elima, vol.* 2. Pisa: 97–110.
- Gentili, G.V. (1956). 'Siracusa. Contributo alla topografia dell'antica città', *Notizie degli Scavi di Antichità* 10: 94–164.
- Giaccone, N. (2012). 'Vito Soldano', in: *Bibliografia topografica della colonizzazione greca* in Italia e nelle isole tirreniche, vol. XXI. Pisa-Rome: 999–1001.
- Giangiulio, M. (1983). 'Greci e non-greci in Sicilia alla luce dei culti e delle legende di Eracle', in: *Modes de contacts et processus de transformation dans les sociétés anciennes, Actes du colloque de Cortone* (24–30 mai 1981). Rome: 785–846.
- Giglio, R. (1998). 'Mazara del Vallo. Nuove scoperte archeologiche in via Marina e nell'area del Palazzo dei Cavalieri', *Sicilia Archeologica* 31: 49–57.
- Giglio, R. (2006). 'Nuovi dati sulla topografia e sui sistemi di fortificazione di Lilibeo', in: M.A. Vaggioli (ed.), *Guerra e pace in Sicilia e nel Mediterraneo (VIII–III sec. a.C.*), vol. 1. Pisa: 267–281.
- Giustolisi, V. (1999). Petra. Atlante delle strutture rupestri dell'alta valle Platani (Castronovo). Palermo.
- Gubernale Apollo, G. (1912). 'Su l'antica città di Talaria, brevi ricerche e considerazioni', *La Siciliana* 9: 93–96.
- Gulletta, M.I. (1992). 'Schera. Per una storia di ricerca', in: *Giornate internazionali di studi sull'area elima, Gibellina* 19–22 *Settembre* 1991. Pisa: 379–394.
- Guzzardi, L. (1999). 'Montagna di Marzo. Nuovi dati sulla storia e sulla topografia del sito', *Kokalos* 45: 535–551.
- Hanson, J.W. (2016). An Urban Geography of the Roman World, 100 BC to AD 300. Oxford.
- Holm, A. (1871). Geschichte Siciliens im Alterthum, vol. 2. Leipzig.
- Holm, A. (1898). Geschichte Siciliens im Alterthum, vol. 3. Leipzig.
- Inglese, A. (2014). 'Noto, città ieroniana', in: T. Alfieri Tonini & S. Struffolino (eds), *Dinamiche culturali ed etniche nella Sicilia orientale*. Trento: 93–103.
- Internicola, G.V. and S. Corso (1993). 'Storia del paesaggio: sopravvivenze prenormanne da Castellammare a Scopello', in *La Fardelliana* 12: 161–187.
- Isler, H.P. (1980–1981). 'Iaitas: scavi della Missione Archeologica Monte Iato dell'Università di Zurigo (1977–1980)', *Kokalos* 26–27: 997–1008.
- Isler, H.P. (2000). Monte Iato. Guida archeologica, 2nd edn. Palermo.

- Isler, H.P. (2012). 'L'agora ellenistica di Iaitas', in: C. Ampolo (ed.), *Agora greca a agorai di Sicilia*. Pisa: 229–237.
- Klug, R. (2017). 'Römisches Siedlungssystem in den Monte Sicani (Agrigent-hinterlandsurvey)', in: J. Bergemann and O. Belvedere (eds), *Survey-Archäologie. Naturwissen*schaftlich-technische und historische Methode in Italien und Deutschland. Rahden, Westf.: 123–135.
- Klug, R. (2012). 'Siedlungsdynamiken im ländlichen Sizilien in römischer Zeit: das Hinterland von Agrigent', in: O. Belvedere and J. Bergemann (eds), *Römisches Sizilien: Stadt und Land zwischen Monumentalisierung und Ökonomie, Krise und Entwicklung.* Palermo: 69–86.
- Kolb, M. (2007a). 'The Salemi Survey Project. Long-term landscape change and political consolidation in interior western Sicily, 3000 BC-AD 600', in: M. Fitzjohn (ed.), Uplands of Ancient Sicily and Calabria. The Archaeology of Landscape Revisited. London: 171–185.
- Kolb, M., P. Vecchio and C. Tyers (2007b). 'The lost settlement of Halikyai and excavations at Cappasanta, Salemi, Sicily', in: M. Fitzjohn (ed.), *Uplands of Ancient Sicily and Calabria. The Archaeology of Landscape Revisited.* London: 197–208.
- Kunkel, W. and R. Wittmann (1995). Staatsordnung und Staatspraxis der römischen Republik. Zweiter Abschnitt: die Magistratur. München.
- Lamagna, G. (1991). 'Adrano. Necropoli occidentale, saggi di scavo 1990. Nota preliminare', *Sicilia Archeologica* 24: 47–52.
- Lamagna, G. (1997–1998). 'Alcuni dati sulle ultime campagne di scavo ad Adranon', *Kokalos* 43–44: 71–81.
- la Torre, G.F. (2005). 'Dall'Eknomos a Phintias: considerazioni sulla topografia del territorio di Licata in epoca storica', in: R. Gigli (ed.), *Megalai nēsoi. Studi dedicati a Giovanni Rizza per il suo ottantesimo compleanno, vol. 2.* Catania: 91–114.
- la Torre, G.F. (2006). 'Urbanistica e architettura ellenistica a Tindari, Eraclea Minoa e Finziade: nuovi dati e prospettive di ricerca', in: Osanna and Torelli (1996), 83–95.
- la Torre, G.F. (2008). Finziade: l'ultima fondazione greca in Sicilia. Guida agli scavi di Monte Sant'Angelo di Licata. Palermo.
- la Torre, G.F. (2009). 'Per la storia di Abakainon/Abacaenum. Prime indagini topografiche nel territorio di Tripi (ME): relazione preliminare', *Sicilia Antiqua* 6:129–145.
- la Torre, G.F. (2017). 'Intra-site survey. Tre casi di studio: Finziade, Sofiana, Skotoussa', in: J. Bergemann & O. Belvedere (eds), *Survey-Archäologie. Naturwissenschaftlichtechnische und historische Methode in Italien und Deutschland*. Rahden, Westf.: 163–171.
- Lee, K.S. (2014). 'Setting and settlement at Morgantina: diachronic patterns in domestic, agoratic, sacred, and fortified space', unpublished paper University of British Columbia.
- Lentini, M.C. (2001). 'Naxos di Sicilia dall'età ellenistica all'età bizantina', in id. (ed.),

Naxos di Sicilia in età romana e bizantina ed evidenze dai Peloritani. Catalogo mostra archeologica, Museo di Naxos 3 dicembre 1999–3 gennaio 2000. Bari: 13–39.

- Lentini, M.C. (ed.) (2006). Da Alunzio a S. Marco. Indagini archeologiche dal 1970 al 2000. Catalogo della mostra 23 iuglio–31 dicembre 2005. Palermo.
- Maher, M.P. (2017). The Fortifications of Arkadian City-States in the Classical and Hellenistic Periods. Oxford.
- Malfitana, D., C. Franco and A. di Mauro (2013). 'Economy and trade of Sicily during Severan period: highlights between archaeology and history', in: T. Corey Brennan, E. De Sena (eds), *The Roman Empire during the Severan Dynasty: Case Studies in History, Art, Architecture, Economy and Literature.* New Jersey: 415–462.
- Manganaro, G. (1962). 'Graffiti e iscrizioni funerarie della Sicilia orientale', *Helikon* 2: 485-511.
- Manganaro, G. (1974–1975). 'La caduta dei Dinomenidi e il politikon nomisma in Sicilia nella prima metà del v. sec. a.C.', *Annali dell'Istituto Italiano di Numismatica* 21–22: 9–40.
- Manganaro, G. (1980). 'La provincia romana', in: E. Gabba & G. Vallet (eds), *La Sicilia antica*. / 11, 2, *La Sicilia romana*. Naples: 415–461.
- Manganaro, G. (1988). 'La Sicilia da Sesto Pompeo a Diocleziano', in: H. Temporini (ed.), *Aufstieg und Niedergang der römischen Welt*, 11.11.1. Berlin: 3–89.
- Manganaro, G. (1996). 'Alla ricerca di poleis mikrai della Sicilia centro-orientale', *Orbis Terrarum* 2: 129–144.
- Maniscalco, L. (2005). 'Monte Catalfaro', in: F. Privitera & U. Spigo (eds), *Dall'Alcantara agli Iblei. La ricerca archeologica in provincia di Catania. Guida alla mostra*. Palermo: 122–123.
- Maniscalco, L. (2012). Il Museo Gaetano Savasta e la aree archeologiche del territorio di Paternò. Palermo.
- Manni, E. (1976). 'Su alcune recenti proposte di identificazione di centrri antichi della Sicilia', in: R. Bloch, P. Boyancé & A. Alföldi (eds), *L'Italie préromaine et la Rome républicaine. I. Mélanges offerts à Jacques Heurgon.* Rome: 605–617.
- Manni, E. (1981). Geografia fisica e politica della Sicilia antica. Rome.
- Marconi, P. (1930). 'Ricognizione archeologica e scoperte fortuite', Notizie degli scavi di Antichità 1930: 555–567.
- Martin, R., P. Pelagatti, G. Vallet and G. Voza (1980). 'Le città greche', in: E. Gabba & G. Vallet (eds), *La Sicilia antica, 1, 3. Città greche e indigeni di Sicilia: documenti e storia*. Naples: 483–705.
- Mattioli, M. (1995). 'Camarina in età ellenistico-romana', Kokalos 41: 229–270.
- Mazza, F. (ed.) (2008). Catania: storia, cultura, economia. Soveria Mannelli.
- Maurici, F. (2003). 'Sicilia bizantina: il territorio della provincia di Trapani dal VI al IX secolo', in: A. Corretti (ed.), *Quarte giornate internazionali di studi sull'area elima,* vol. 2. Pisa: 885–930.

- Maurici, F. (2009). 'Le fortificazioni di Trapani nel Medioevo e in età moderna (secoli x–xvI)', in: M.L. Farnà & D. Scandariato (eds), *Trapani in un disegno a penna del Museo Pepoli*. Trapani: 75–82.
- Messina, A. (1970). 'Monte Catalfaro e il problema della identificazione di Noai', *Cronache di Archeologia* 9: 24–34.
- Messina, A. (1971). 'Mineo. Osservazioni sullo sviluppo del centro antico', *Cronache di Archeologia e Storia dell'Arte* 10: 93–120.
- Messina, A. (1979). 'Ricerche archeologiche e topografiche nel territorio di Mineo', *Cronache di Archeologia e Storia dell'Arte* 18: 7–18.
- Messina, A. (1991). 'Tyrakinai, città di Sicilia, piccola ma florida', *Rivista di Topografia Antica* 1: 166–168.
- Michelini, C. (2003). 'Entella fra III sec. a.C. e I sec. d.C. Note preliminari', in: A. Corretti (ed.), *Quarte giornate internazionali di studi sull'area elima, vol. 2.* Pisa: 933–972.
- Michelini, C. and M.C. Parra (2001). 'Entella: La Città', in: C. Ampolo & M.C. Parra (eds), Da un'antica città di Sicilia. I decreti di Entella e Nakone. Catalogo della mostra. Pisa: 157–172.
- Militello, E. (1958). 'Ragusa. Avanzi greci e romani scoperti presso la foce del fiume Irminio', *Notizie degli Scavi di Antichità* 12: 224–231.
- Militello, P. (2008). Scicli: archeologia e territorio. Palermo.
- Moatti, C. (2014). 'Mobility and identity between the second and fourth centuries: the 'cosmopolitization' of the Roman empire', in: C. Rapp and H.A. Drake (eds), *The City in the Classical and Post-Classical World. Changing Contexts of Power and Identity*. Cambridge: 130–152.
- Moatti, C. (2017). 'Migration et droit dans l'Empire Romain', in: E. Lo Cascio and L.E. Tacoma (eds), *The Impact of Mobility and Migration in the Roman Empire*. Leiden: 222–245.
- Moltisanti, A. (1950). Ispica (già Spaccaforno). Siracusa.
- Morel, J.-P. (1963). 'Recherches archéologiques et topographiques dans la région d'Assoro (province d'Enna, Sicile)', *Mélanges d'archéologie et d'histoire* 75: 263–301.
- Morel, J.-P. (1966). 'Assoro. Scavi nella necropoli', *Notizie degli Scavi di Antichità* 20: 232–287.
- Mosca, A. (2002). 'Aspetti della rotta Cartagine-Rome', in: M. Khanoussi, P. Ruggeri & C. Vismara (eds), *L'Africa romana*. *Atti del XIV convegno di studio*, 7–10 *dicembre* 2000, *Sassari*. Rome: 483–490.
- Mosca, A. (2014). 'Survey in the inland area of Lilybaeum', *Proceedings of the 3rd International Landscape Archaeology Conference*. Amsterdam (e-publication).
- Mosca, A. (2015). 'Dinamiche insediative e assetti agrari nella Sicilia occidentale: il territorio fra i fiumi Sosio e Mazaro', *Agri Centuriati* 12: 95–127.
- Nenci, G. (1996). 'L'impianto urbanistico di Entella', in: H.P. Isler, D. Käch and O. Stefani (eds), Wohnbauforschung in Zentral- und Westsizilien. Zürich: 125–130.

Nielsen, T.H. (2004). 'Arkadia', in: M. Hansen & T.H. Nielsen (eds), *An Inventory of Archaic and Classical Poleis*. Oxford: 505–539.

- Orlandini, P. (1956). 'Storia e topografia di Gela dal 405 al 282 a.C. alla luce delle nuove scoperte archeologiche', *Kokalos* 2: 158–176.
- Orsi, P. (1897a). 'Noto Vecchio (Netum)—esplorazioni archeologiche', *Notizie degli scavi di Antichità* 1897: 69–90.
- Orsi, P. (1897b). 'Di una città greca a Terravecchia presso Grammichele', *Monumenti Antichi pubblicati per cura della Reale Accademia dei Lincei* 7: 201–274.
- Orsi, P. (1899). 'Pantelleria', Monumenti Antichi pubblicati per cura della Reale Accademia dei Lincei 9: 450–539.
- Orsi, P. (1902). 'Vizzini', Notizie degli scavi di Antichità 1902: 213–218.
- Orsi, P. (1906). 'Gela, scavi del 1900–1905', Monumenti Antichi pubblicati per cura della Reale Accademia dei Lincei 17: 5–758.
- Orsi, P. (1907). 'Sicilia. Relazione preliminare sulle scoperte archeologiche nel sud-est della Sicilia nel biennio ½ 1905–½ 1907', *Notizie degli scavi di Antichità* 1907: 484–498.
- Orsi, P. (1912). 'Sicilia. Nuovi scoperte nel territorio Siracusano', *Notizie degli scavi di Antichità* 1912: 356–372.
- Osanna, M. (2006). 'Architettura pubblica e privata a Kossyra', in: Osanna and Torelli (2006), 35–50.
- Osanna, M. and M. Torelli (eds) (2006). Sicilia ellenistica, consuetudo italica. Alle origini dell'architettura ellenistica d'occidente. Rome.
- Pais, E. (1888–1889). 'Alcune osservazioni sulla storia e sulla amministrazione della Sicilia durante il dominio romano', *Archivio Storico Siciliano* 13: 113–252.
- Pancucci, D. (2006). 'Monte Riparato', in: F. Spatafora (ed.), Des Grecs en Sicile. Grecs et indigènes en Sicile occidentale d'après les fouilles archéologiques. Palermo: 126–131.
- Panvini, R. (1988–1989). 'Scavi e ricerche a Caltabellotta tra il 1983 e il 1985', *Kokalos* 34–35: 559-572.
- Panvini, R. (1996). Gelas, storia e archeologia dell'antica Gela. Torino.
- Patané, R.P.A. (1992). 'Timoleonte a Centuripe ed a Agira', *Cronache di Archeologia* 32: 67–82.
- Patané, R.P.A. (2000). 'Per un bilancio conclusivo', in: R.P.A. Patané et al. (eds), *Grammichele. Il parco archeologico di Occhiolà e la Valle dei Margi*. Catania: 91–97.
- Patané, R.P.A. (2006). 'Centuripe ellenistica. Nuovi dati dalla città', in: Osanna and Torelli (2006), 201–210.
- Patané, R.P.A. (2010). 'Centuripe: due scavi nell'abitato ellenistico', in: G. Biondi (ed.), *Centuripe. Indagini archeologiche e prospettive di ricerca*. Enna: 115–129.
- Paterson, J. (1998). 'Trade and traders in the Roman world: scale, structure and organisation', in: H. Parkins and C. Smith (eds), *Traders and the Ancient City*. London: 149–167.
- Patti, D. (2011). Dinamiche insediative tra Tardo Antico ed Altomedioevo nel territorio

- ennese. Un approchio informatico all'analisi dei paesaggi, unpublished doctoral thesis, Università degli Studi di Catania. Catania.
- Patti, D. (2012). 'Dinamiche insediative nel territorio di Nicosia e Sperlinga tra età Tardoantica ed Altomedioevo', *Mediaeval Sophia, Studi e ricerche sui saperi medievali* 12: 197–222 (e-publication).
- Patti, D. (2016). 'Sopravvivenze medievali nel tessuto urbano di Enna', in: M.G. Leonardi (ed.), Il progetto della memoria: casi e strategie di progettazione architettonica e ambientale per la valorizzazione del patrimonio storico monumentale. Rome: 71–81.
- Pelagatti, P., F. Fouilland and M. Frasca (1996). 'Monte Casasia (Ragusa). Campagne di scavo 1966, 1972–73 nella necropoli indigena', *Notizie degli scavi di Antichità* 1996: 323–583.
- Pfuntner, L. (2013). 'Das römische Sizilien. Kontaktzone zwischen Italien, Afrika und dem östlichen Mittelmeerraum', in: W. Gruber & S. Koehler (eds), *Siziliens Geschichte. Insel zwischen den Welten.* Vienna: 31–48.
- Piazza, P. (2009). *La romanizzazione di Siracusa tra impianto urbano e territorio*, unpublished thesis Università degli Studi della Basilicata. Matera.
- Pilo, C. (2006). 'La villa di Capo Soprano a Gela', in: Osanna and Torelli (2006), 153–166.
- Pinzone, A. (1999). 'Maiorum sapientia e lex Hieronica: Roma e l'organizzazione della provincia Sicilia da Gaio Flaminio a Cicerone' (orig. 1979), repr. in id. (ed.), Provincia Sicilia. Ricerche di storia della Sicilia romana da Gaio Flaminio a Gregorio Magno. Catania: 1–37.
- Pinzone, A. (2004). 'Agatirno: spunti di storia istituzionale ed economica', in: U. Spigo (ed.), *Archeologia a Capo d'Orlando. Studi per l'Antiquarium.* Milazzo: 17–22.
- Pinzone, A. (2002). 'Elementi di novità e legami con la tradizione tra tarda repubblica e inizi impero', in: B. Gentili and A. Pinzone (eds), *Messina e Reggio nell'antichità: storia, scoietà, cultura*. Messina: 111–125.
- Prag, J. (2003). 'Nouveaux regards sur les élites locales de la Sicile républicaine', *Histoire* et Sociétés Rurales 19: 121–132.
- Prag, J. (2009). 'Roman Sicily at the start of the 21st century: the rise of the optimists?', *Pallas* 79: 131–143.
- Prag, J. (2014). 'Cities and civic life in late Hellenistic Roman Sicily', *Cahiers du Centre Gustave Glotz* 25: 165–208.
- Privitera, F. (1988–1989). 'Castel di Iudica: esplorazioni nell'abitato e nell'abitato nella necropoli sul Monte Iudica', *Beni Culturali e Ambientali della Regione Siciliana* 9–10: 85–88.
- Privitera, F. (1997–1998). 'Scavi e ricerche nei comuni di Calatabiano e Fiumefreddo di Sicilia e nella necropoli di Castel di Iudica', *Kokalos* 43–44: 275–289.
- Privitera, F. (2005). 'Valle dell'Alcantara', in: F. Privitera & U. Spigo (eds), *Dall'Alcantara agli Iblei. La ricerca archeologica nella provincia di Catania, guida alla mostra*. Palermo: 93–98.

Privitera, F. (2009). 'Monte Iudica in età arcaica', in: R. Panvini & L. Sole (eds), *La Sicilia in età arcaica: dalle apoikiai al 480 a. C. Contributi dalle recenti indagini archeologiche*. Palermo: 88–90.

- Privitera, S. (2009). 'Lo sviluppo urbano di Catania dalla fondazione dell'*apoikia* alla fine del v secolo d.C.', in: L. Scalisi (ed.), *Catania. L'identità urbana dall'Antichità al Settecento*. Catania: 37–71.
- Procelli, E. (1975). 'Ramacca, un centro greco-indigeno e un villaggio preistorico ai limiti occidentali della Piana di Catania', *Sicilia Archeologica* 27: 57–62.
- Purpura, G. (1974). 'Il relitto di Terrasini', Sicilia Archeologica 24-25: 45-61.
- Purpura, G. (1982). 'Pesca e stabilimenti antichi per la lavorazione del pesce in Sicilia, I: S. Vito (Trapani), Cala Minnola (Levanzo)', *Sicilia Archeologica* 48: 45–60.
- Raffiotta, S. (1996). C'era una volta Morgantina. Enna.
- Rizzo, P. (1928). Tauromenion (Taormina). Storia, topografia, monumenti, monete. Riposto.
- Sagona, C. (2015). The Archaeology of Malta. From the Neolithic through the Roman Period. Cambridge.
- Schubring, J. (1873). 'Historisch-geographische Studien über Altsicilien', *Rheinisches Museum für Philologie* 28: 65–140.
- Scibona, G. (1987). 'Punti fermi e problemi di topografia antica a Messina: 1966–1986', in: Lo stretto crocevia di culture. Atti del ventiseiesimo convegno di studi sulla Magna Grecia, Taranto-Reggio Calabria, 9–14 ottobre 1986. Taranto: 433–458.
- Scramuzza, V.M. (1937). 'Roman Sicily', in: T. Frank (ed.), *An Economic Survey of Ancient Rome*, vol. 111. Baltimore: 225–377.
- Seminerio, D. (1975). Morgantina a Caltagirone e altre ipotesi di identificazione degli antichi abitati dei Margi. Catania.
- Spatafora, F. (1993–1994). 'La montagnola di Marineo. Campagna di scavi 1991', *Kokalos* 39–40: 1187–1198.
- Spatafora, F. (1997). 'Ricerche e prospezioni nel territorio di Corleone: insediamenti preistorici e centri indigeni', in: *Seconde Giornate Internazionali di Studi sull'area elima*. Pisa: 1273–1286.
- Spatafora, F. (2003). 'Nuovi dati sulla topografia di Palermo', in: A. Corretti (ed.), *Quarte giornate internazionali di studi sull'area elima, Erice 1–4 dicembre* 2000. Pisa: 1175–1888.
- Spatafora, F. (2009). 'Makella (La Montagnola di Marineo)', in: R. Panvini & L. Sole (eds), La Sicilia in età arcaica: dalle apoikiai al 480 a.C. Contributi dalle recenti indagini archeologiche. Palermo: 296–297.
- Spigo, U. (2006). 'Tindari. Considerazioni sull'impianto urbano e notizie preliminari sulle recneti campagne di scavo nel settore occidentale', in: Osanna and Torelli (2006), 97–105.
- Stone, S.C. (2014). *Morgantina Studies, vol. VI. The Hellenistic and Roman Fine Pottery.*Princeton, NJ.

- Tigano, G. (2002). Le necropoli di Mylai: VIII-I sec. a.C., catalogo. Milazzo.
- Tigano, G. (2004). 'Milazzo. Per la topografia del centro antico', in: G.M. Bacci & M.C. Marcelli (eds), *Studi classici in onore di Luigi Bernabò Brea*. Messina: 281–294.
- Tigano, G. (ed.) (2009). Mylai 11. Scavi e ricerche nell'area urbana (1996–2005). Messina.
- Tigano, G. (2011). L'Antiquarium archeologico di Milazzo: guida all'esposizione. Messina.
- Tortorici, E. (2008). 'Osservazioni e ipotesi sulla topografia di Catania antica', in: P. Carfora, G. Cera and S. Quilici Gigli (eds), *Edilizia pubblica e private nelle città romane*. Rome: 91–124.
- Toscano Raffa, A. (2017). Finziade a la bassa valle dell'Himera meridionale, vol. 1. La "Montagna" di Licata (AG). Catania.
- Traselli, C. (1969). 'Schera—Corleone o Monte dei Cavalli?', Sicilia Archeologica 2: 19–28.
- Tsakirgis, B. (1995). 'Morgantina: a Greek town in eastern Sicily', in: T. Fischer-Hansen (ed.), *Ancient Sicily*. Copenhagen: 123–147.
- Tusa, V. (1968). 'Il teatro di Solunto', Sicilia archeologica 1: 5-11.
- Tusa, S. and F. Nicoletti (2003). 'Saggi stratigrafici alle mura di Erice', in: A. Corretti (ed.), Quarte giornate internazionali di studi sull'area elima, Erice 1–4 dicembre 2000. Pisa: 1215–1238.
- Uggeri, G. (1997–1998). 'Itinerari e strade, rotte, porti e scali della Sicilia tardoantica', *Kokalos*, 43–44: 229–364.
- Uggeri, G. (2000). 'Adolfo Holm e la geografia della Sicila antica', *Rivista di topografia* antica 10: 277–286.
- Uggeri, G. (2004). La viabilità della Sicilia in età romana. Galatina.
- Vaccaro, E. (2012). 'Re-evaluating a forgotten town using intra-site surveys and the GIS analysis of surface ceramics: Philosophiana-Sofiana in the longue durée', in: P. Johnson and M. Millett (eds), *Archaeological Survey and the City*. Oxford: 107–145.
- Vaggioli, M.A. (2001). 'Il territorio di Entella nell'età dell'epicrazia punica', *Sicilia Archeologica* 34: 51–66.
- Valbruzzi, F. and E. Giannitrapani (2015). 'L'immagine ritrovata di una città antica: l'archeologia urbana a Enna', in: F. Anichini, G. Gattiglia & M.L. Gualandi (eds), *Mappa data book v. I dati dell'archeologia urbana italiana*. Rome: 39–55.
- Valenti, F. (1999). 'Note preliminari sulla topografia di Lentini dalla conquista romana all'età tardo antica', *Sicilia Archeologica* 32: 169–180.
- Vallet, G., F. Villard and P. Auberson (1983). *Mégara Hyblaea 3. Guide des fouilles*. Rome. Vassallo, S. (1985). 'Pizzo Nicolosi', *Sicilia Archeologica* 18: 115–147.
- Vassallo, S. (1997), 'Montagna dei Cavalli. Scavi 1988–1991 a Montagna dei Cavalli-Hippana', in: F. Spatafora and S. Vassallo (eds), *Archeologia e territorio*. Palermo: 275–348.
- Vassallo, S. (2011). 'Trasformazioni negli insediamenti della Sicilia centro-settentrionale tra la fine del v e il 111 secolo a. C. con nota preliminare sul teatro di prima età ellenis-

tica di Montagna dei Cavalli', in: R. Neudecker (ed.), *Krise und Wandel. Süditalien im* 4. und 3. Jahrhundert v. Chr. Rome: 55–76.

- Vassallo, S. (2012). 'The theater of Montagna dei Cavalli-Hippana', in: K. Bosher, *Theater outside Athens. Drama in Greek Sicily and South Italy*. Cambridge: 208–225.
- Vecchio, P.F., M. Kolb and G. Mammina (2003). 'Tracce di un insediamento del IV secolo a.C. a Salemi (TP)', *Sicilia Archeologica* 36: 115–124.
- Wilson, A. (2011). 'City sizes and urbanization in the Roman Empire', in: A. Bowman and A. Wilson (eds), *Settlement, Urbanization, and Population*. Oxford: 161–195.
- Wilson, R.J.A. (1985). 'Changes in the pattern of urban settlement in Roman, Byzantine and Arab Sicily', in: C. Malone & S. Stoddart (eds), *Papers in Italian Archaeology* IV.1. Oxford: 313–344.
- Wilson, R.J.A. (1988). 'Towns of Sicily during the Roman empire', H. Temporini (ed.), *Aufstieg und Niedergang der römischen Welt*, 11.11.1. Berlin: 90–206.
- Wilson, R.J.A. (1990). Sicily under the Roman Empire. The Archaeology of a Roman Province, 36BC-AD535. Warminster.
- Wilson, R.J.A. (1995–1996). 'Archaeology in Sicily 1988–1995', *Archaeological Reports* 42: 59–123.
- Wilson, R.J.A. (1996). 'La topografia della Catania romana. Problemi e prospettive', in:
 B. Gentili (ed.), *Catania antica. Atti del convegno della Società Italiana per lo Studio dell'Antichità Classica (Catania 23–24 maggio 1992*). Pisa: 149–173.
- Wilson, R.J.A. (2000a). 'Ciceronian Sicily: an archaeological perspective', in: C. Smith & J. Serrati (eds), *Sicily from Aeneas to Augustus*. Edinburgh: 134–160.
- Wilson, R.J.A. (2000b). 'Sicilia. Map-by-map directory', in: R.J.A. Talbert (ed.), *The Barrington Atlas of the Greek and Roman World*. Princeton: 709–735.
- Wilson, R.J.A. (2012). 'Agorai and fora in Hellenistic and Roman Sicily: an overview of the current status quaestionis', in: C. Ampolo (ed.), Agora greca a agorai di Sicilia. Pisa: 245–267.
- Wolf, M. (2012). 'Nuove ricerche nell'*agora* di Solunto', in C. Ampolo (ed.), *Agora greca* e agorai di Sicilia. Pisa: 223–238.
- Zambon, E. (2004). 'Κατὰ δὲ Σικελίαν ἦσαν τύραννοι: notes on tyrannies in Sicily between the death of Agathocles and the coming of Pyrrhus (289–279 B.C.)', in: K. Lomas (ed.), Greek Identity in the Western Mediterranean. Papers in Honour of Brian Shefton. Leiden-Boston: 457–474.
- Zehnacker, H. (2009). Pline le Jeune. Livre III. Paris.
- Zuchtriegel, G. (2011). 'Zur Bevölkerungszahl Selinunts im 5. Jh. v. Chr.', *Historia* 60: 115–121.