

# The Earliest Town-Planning of the Western Greek Colonies, with special regard to Sicily.<sup>1</sup>

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## Introduction

Magna Graecia and, above all, Sicily offer basic evidence of Greek urbanism, especially in regard to the problems of the development of early town-planning. The numerous, and well published, urban excavations in the western Greek colonies offer outstanding opportunities to study the early urbanization of settlements founded on virgin sites, or at least founded without regard to the layout of the indigenous settlements, where these precede the Greek foundations.

Studies of the Greek city, focusing on the political or institutional history, often disregard the urbanistic evidence, as succinctly formulated by Emanuele Greco at a recent Taranto-Convegno:

Nel quadro dello studio della città, in quanto comunità, insomma, viene generalmente assegnato uno scarso rilievo allo *σχῆμα*, come dicevano i Greci, da un lato per il contributo ritenuto spesso marginale che lo studio urbanistico può dare alla storia di una città (specialmente quando si tratti di storia politica ed istituzionale) dall'altro perché la elaborazione archeologica dei dati non ha offerto sufficiente materia di riflessione né ha proposto modelli interpretativi sul piano storico generale (almeno nelle fasi iniziali del periodo che stiamo considerando).<sup>2</sup>

In the context of the Copenhagen Polis Centre it could therefore seem relevant to discuss some of the aspects of western Greek urbanization.

At the time of the western Greek colonization around the middle of the 8th century B.C. the degree of urbanization of the geometric and archaic settlements in Greece itself, even at such sites as Argos, Corinth and Eretria,<sup>3</sup> is somewhat elusive and it is normally taken for granted that there is as yet no evidence of regular town-plans. There is a near

enough consensus of opinion when discussing the origin of urban, orthogonal planning to see this as a direct result of colonization, a result of the colony founded on virgin soil, artificially and according to a predetermined plan.<sup>4</sup> Some settlements such as Zagora on Andros and Vroulia on Rhodes may, however, present limited evidence of early town-planning.<sup>5</sup> Giorgio Gullini has even argued for a rudimentary Hippodamian town-planning at these sites, and also in the eastern quarter of the 11th century B.C. site of Karphi on Crete, with the use here of orthogonal axes, an overall alignment of the single houses, creating a cellular-like planned lay-out of the settlements.<sup>6</sup> However, urban grid-plans or orthogonal-planning at any significant scale at these sites, comparable to the evidence from Sicily and Magna Graecia, seems hardly demonstrable. Also Old Smyrna, reconstructed after its destruction in 700 B.C., has been taken as a prototype of an orthogonally planned city, displaying a “plan regulateur, a checkerboard plan”.<sup>7</sup> But although there is a system of parallel aligned streets, there is no division of the town into equally sized housing blocks or *insulae* with transverse streets, and there is no town-planning with the laying-out of public spaces.<sup>8</sup>

By the time the Sicilian secondary colonies, Akrai, Kasmenai, Kamarina, Selinus and Himera were founded, some within a few generations after the period of the first colonization, we are *not* presented with fully developed and sophisticated town-planning, but we do find well-defined functions of the single units, such as habitation and public areas for both sacred and secular purposes. It should be obvious that the first colonies must have played a decisive part in the development of early town-planning. However, if the evidence for the first, or very early, urbanization of the Greek foundations in the West is examined it can be shown that this evidence, for not a few of the colonies, is far more tenuous than it is often indicated in older standard publications, where the reproduced plans mostly refer to a later, and more developed urbanistic situation.<sup>9</sup>

The scope of this short survey is to focus on some of the evidence for town-planning during the early history of the Greek colonies in Western Greece. Archaic Greek urbanization and town-planning as evidenced in the colonies of Sicily and Magna Graecia has, for several years, been the subject of profound study.<sup>10</sup> For the 5th century period of town-planning in Sicily and the school of Hippodamas, outside the scope of this study, we refer only to the recent study by Oscar Belvedere which contains a copious bibliography.<sup>11</sup>

Evidence of urbanization from the early period of colonization,

choosing the problems of town-planning as a starting point, is more limited than is, perhaps, often realized in fields of research bordering on classical archaeology. The basic view is that the development of town-planning in the Greek world was given a particular impetus by the foundation of colonies in Magna Graecia, Sicily and in the Black Sea area and the division of the colonised land here into equally sized lots (*isomoiria*), partly as landowning plots (*kleroi*) in the territory, and partly as housing and garden plots (*gepeda*, *oikopeda*) in the town, with more substantial plots laid out for the communal cult or the cult of the *oikistes*. The regular, measured plots divided into larger units created the basis for the later orthogonally planned, "Hippodamian", Greek city.<sup>12</sup>

However, let us turn to the evidence of urbanization from structural remains, looking first briefly at one of the two major areas of western Greek colonization, Magna Graecia.

## Magna Graecia

Apart from the 8th century B.C. metal-working centre at Pithekoussai, on the island of Ischia, with its apsis-hut, and the later 7th century rectangular buildings,<sup>13</sup> we have rather limited evidence of urbanization from civic centres in the Greek foundations of Magna Graecia.<sup>14</sup>

Vestiges of habitation from the early archaic period are rare. For instance, apart from archaic houses at Elea (founded c. 540 B.C.) with evidence of early urbanism,<sup>15</sup> and some remains of habitation and streets possibly going back to the late 7th century B.C. at Kroton and at Sybaris, with some indication of a planned orientation of the single houses, we have no evidence of the early urbanization, that is of the period of colonization, at Kyme (founded c. 725-700 B.C.), Poseidonia (625-600 B.C.), Kroton (709 B.C.), Sybaris (c. 720 B.C.), Hipponion (c. 650 B.C.), Rhegion (730-720 B.C.) or Taras (706 B.C.).

Although it is always taken for granted that the early colonizers must have constructed walls to secure and defend their newly founded settlements from hostile indigenous tribes, the evidence of fortifications from the early period of colonization is virtually non-existent. Apart from the primitive 8th century wall at Policoro (Siris?),<sup>16</sup> and 6th century vestiges at Kyme,<sup>17</sup> Kaulonia,<sup>18</sup> and Taras,<sup>19</sup> all other evidence of defensive walls is from the 5th century and, above all, from the 4th century B.C. Most of the early colonies were not fortified at the time of colonization and defensive works can therefore not be used as an indication of the degree of



urbanization of the colonies during their earliest history. Only Siris living at close quarters with the indigenous populations was compelled to fortify its settlement from the earliest period.

Above all there is a lack of evidence of the organization or planning of civic centres, such as the *agora* or buildings for political meetings and assemblies. In most cases we are even in ignorance of the location of the *agora*. The notable exceptions are Metapontion and Poseidonia. At Metapontion (traditional and improbable, 773 B.C.) the traces of wooden bleachers, *ikria*, possibly the remains of an *ekklesiasterion* from as early as the 7th century B.C., probably indicate also the existence of an *agora* of the same date.<sup>20</sup> There is some evidence of town-planning from Metapontion from the end of the 6th century B.C., though, as mentioned above, the history of an assembly place and the *agora* may go back to the 7th century. The overall picture, however, is that of scarce knowledge of town-planning at the period of foundation.

At Lokroi (679 B.C.) remains of habitation structures of 7th century date, partly in the coastal plain and partly in the hinterland, may suggest some overall main urban axis in function as early as the foundation of the colony, but the evidence is tenuous, and the remains of the orthogonally planned city are from the second half of the 6th century.<sup>21</sup>

Taras, from the time of foundation (end of 8th century B.C.) until the 5th century, occupied the restricted area of the promontory ("akropolis" – now Città Vecchia) with a perimeter of only about 2 km and an extension of about 16 ha. The urban lay-out is unknown, but, in analogy with Syracuse, the town plan of the medieval city, with its reminiscences of orthogonal planning, may reflect a Greek origin. It was certainly a very restricted area to encompass habitation and public space – with sanctuaries and perhaps also areas with a political function. The location of an *agora* is suggested where the promontory enlarges into the isthmus, near the location of the archaic necropolis. However all of this is uncertain.<sup>22</sup> There is evidence that the main axis of the 5th century town, increased in size and encompassing the neighbouring isthmus, respected and took over the axis joining the settlement with the necropolis, in use from the time of the foundation of Taras.<sup>23</sup> The existence of an early major axis in spite of the small size of the settlement is of interest for the problems under examination here, and a possible confirmation that great overall axes were laid out already at the time of the foundation of the colonies.

Kroton (fig. 1) does present important evidence of town-planning. The urban lay-out of the colony is characterised by a division of the territory into three nuclei, each with its own orientation. This does not ne-



cessarily reflect a division with origin in different small settlements, in the manner of *'kata komas'*, but it reflects rather an overall plan with the laying-out of different main areas of lots, possibly already at the time of foundation towards the end of the 8th century B.C., with the orientations retained in the later 7th century urban development and its use of *steno-poi* and *plateiai*. The nuclei were oriented perpendicularly to the coast and in accordance with the morphology of the narrow coastal plain, on both sides of the Esaro river and harbour.<sup>24</sup> Of primary interest is the suggestion that a public area was located at the point of convergence of the two western habitation nuclei and the route leading to the *chora*. At this point of convergence the archaeological evidence suggests other functions than that of habitation, partly a *kerameikos*, and possibly a public space such as an agora.<sup>25</sup> Direct evidence for defensive works from the time of the first urban history is lacking, though it is suggested that they could have been constructed in clay bricks, leaving no trace.<sup>26</sup>

## Sicily

The evidence from Sicily is more lucrative. Evidence of early city-planning comes above all from Megara Hyblaia (728 B.C.), but also from Syracuse (733 B.C.), Naxos (734 B.C.), Leontinoi (729 B.C.), Akrai (663 B.C.), Kasmenai (643 B.C.), Kamarina (598 B.C.), Himera (648 B.C.), and Selinus (650/628 B.C.) – all sites that from an early period of their settlement history offer evidence, albeit at times sporadic, of division into habitation areas, political centres, workshops, sanctuaries (urban, extra-urban and sub-urban), and cemeteries. As all of these sites have been the subject of several detailed studies. I have chosen to focus on Gela, a site which has played a smaller role in recent studies of western Greek town-planning.<sup>27</sup>

### Gela

Gela was the earliest colony on the south coast of Sicily, traditionally founded 689/8 B.C. by Creto-Rhodian colonists on an oblong plateau, extending east – west and situated west of the mouth of the river Gelas.<sup>28</sup> Unfortunately the site offers very little evidence of the urbanistic situation in the first period after the foundation of the settlement and in the archaic period as such. However, the *temenos* and the confining zones on the eastern part of the plateau give a few hints about the early city-plan. According to Thucydides (VI.4.3) Γέλαν δὲ Ἀντίφρημος ἐκ Ῥόδου

ου καὶ Ἔντιμος ἐκ Κρήτης ἐποίκους ἀγαγόντες κοινῇ ἔκτισαν ἕτει πέμπτῳ καὶ τεσσαρακοστῷ μετὰ Συρακουσῶν οὔκισιν. καὶ τῇ μὲν πόλει ἀπὸ τοῦ γέλα ποταμοῦ τὸ ὄνομα ἐγένετο, τὸ δὲ χωρίον οὐ νῦν ἢ πόλις ἐστὶ καὶ ὃ πρῶτον ἐτειχίσθη Λίνδιοι καλεῖται. The topographical description is normally translated something like: “the city [*polis*] took its name from the river Gelas, whereas the place [*chorion*] where the city stands [once more the term is *polis*], and which was the first part [of the city] to be fortified, was called *Lindioi*,”<sup>29</sup> thus reflecting the Rhodian origin of some of the settlers. The apposition of the two occurrences of the term *polis*, used partly of Gela, the city as such, and partly of a place named *Lindioi* with the earliest defences, explains the normal translation – akropolis – for the latter. From the point of view of the morphology of the site an akropolis at Gela could possibly be identified with a part of the eastern plateau above the estuary of the Gela river, where the sanctuary of Athena and a number of smaller sanctuaries have been identified.

However, if the first occurrence of *polis* is understood as state or community the text might give better sense: “The community got its name from the river Gela, but the place where the town now is, and the first to be walled, is called *Lindioi*.” The reason why Thucydides offers this piece of information would be that Gela, exceptionally, was a *polis* named after a river, and not, as usual, after a town, although there are possibly other examples of this, for instance Siris, Himera and Selinus. The implication of “where the town now is” is that the location of the town in Thucydides’ time was different from what it had once been, – that must at least be what Thucydides believed. Whether he is right is a different matter.<sup>30</sup>

Our main concern here is the topography of the eastern part of the plateau of Gela, the modern locality of Molino a Vento, during the early history of the colony (fig. 2). It is indisputable that the most significant, and probably earliest cult place of Gela was the Athenaion, situated here, as revealed by the excavations undertaken first by Paolo Orsi at the beginning of the century and in the 1950’s by P. Orlandini and D. Adamesteanu.<sup>31</sup> The importance of the cult of Athena at Gela reflects the position which the goddess had at Lindos in Rhodes and this is a good example of a principal cult taken over by the colony from the mother city.<sup>32</sup> However, there are basic differences between the topography of the Geloan sanctuary and the Lindian which need to be compared and discussed briefly.

There are few indications of the topography and architecture of the

Lindos sanctuary in its early phases. C. Blinkenberg believed that the sanctuary had a shrine in the late 8th or early 7th century B.C.,<sup>33</sup> a belief based solely upon the circumstantial evidence of a postulated (!) cult-image which he saw reflected in the votive terracottas of that period. Such a cult-image would require a cult-building. The Rhodian colonial enterprise in Sicily and the tradition of the early *anathemata* from Gela, mentioned in the Lindian Chronicle and possibly contemporary with the early history of the colony, have also been taken as evidence for a sanctuary with cult-buildings at Lindos.<sup>34</sup> The earliest structural remains at Lindos, suggesting a prostyle temple without pteron, and the first remains of monumental steps are dated to the period of Kleoboulos, around the middle of the 6th century B.C.<sup>35</sup> The first monumentalization of the sanctuary at Lindos is therefore contemporary with, or a little later than, the first peripteral temple “B” in the Athena sanctuary at Gela, but the degree of monumentalization is somewhat different, temple “B” at Gela being by far the more monumental. The two sanctuaries have, in fact, little in common.

Let us return to Gela. As the evidence of the early urbanization of Gela is rather complicated, and as the lack of correlation between the plans of the published excavation reports is a problem for the understanding of the relationship between the Athenaion and the adjacent zones, it may be useful to attempt to present an overall view.

The remains of an early shrine, “*sacellum A*”, the earliest substantial structural remains at Gela, were revealed inside the cella of the later peripteral temple “B” (fig. 3). The only extant vestiges of this early building consist of a wall running north-south, but at an oblique angle to the orientation of the later temple. The wall, about 12 m. long, was originally longer as parts of it was removed by the foundations of the later temple. The technique is a primitive polygonal-like rubble masonry, with the use of large boulders, or orthostates, the joins filled out with smaller stones,<sup>36</sup> and difficult to date by its technique alone. A similar building technique is, however, also used in early archaic private architecture at Megara Hyblaia and at Syracuse, in structures from the earliest period of those sites.<sup>37</sup> The cuttings of the upper surfaces suggest that the wall constituted the western-most foundation of shrine “A” so that the building was situated eastwards. The type of structure, a (small) shrine without peripteros, widely used in early Sicilian sanctuaries, was dated to the early 7th century by P. Orsi, contemporary with, or not much later than, the foundation of the colony, a date followed by L. Bernabò Brea and



other scholars.<sup>38</sup> It is noteworthy that the orientation of the later *stenopoi* and the early archaic shrines laid out in the part of the *temenos* situated north of shrine “A” are in accordance with the orientation of this first shrine and *not* with that of the later peripteral temple.

We have somewhat analogous situations at Naxos, and later at Himera, where the orientation of the monumental, and later, temples is different from that of the first cult buildings of the sites.<sup>39</sup>

The early shrine “A” at Gela was replaced by the Doric hexastyle peripteral temple “B” in the first half of the 6th century B.C., and possibly as early as the beginning of the century.<sup>40</sup> The architectural terracottas from the temple are a testimony to the impressive and elaborate revetment systems evolved at Gela, as reflected also in the Geloan treasury at Olympia. Several sets of revetments testify to successive repairs and replacements around the middle of the 6th century,<sup>41</sup> but Ch. Wikander seems to suggest that perhaps not all of the different revetment sets should be attributed to the same temple.<sup>42</sup>

If the architectural elements are not all from the same building, we have an indication of more than one large shrine in the sanctuary. In fact other evidence of a temple not identified in the structural remains is an early archaic Doric limestone capital, not attributable to temple “B” according to Bernabò Brea.<sup>43</sup>

The votive deposit excavated on the south slope of the Athenaion *temenos* contains 7th century and early 6th century votive material from the shrine “A” phase and the early phase of temple “B”.<sup>44</sup> The lack of finds in the deposit datable to the latter part of the 6th century must reflect the abandonment of temple “B”, replaced by the later Doric temple “C”, see *infra*.

The earliest *temenos* building known in any detail is therefore temple “B”, and without going into a detailed discussion of this, a few points should be discussed (apart from the evidence of the architectural terracottas, already mentioned):

- The foundations of the temple, laid out already in the early part of the 6th century and possibly as early as 600 B.C., are built in a sophisticated ashlar technique.
- There is little evidence for the cella of the temple,<sup>45</sup> which was perhaps structured in simple mud-brick. S. Stucchi has pointed out the apparent lack of cellas in some western Greek temples, a phenomenon perhaps explained by their simple structure leaving few vestiges,<sup>46</sup> and E. Østby has added more evidence of this from Lokroi.<sup>47</sup>

- Frieze and peristasis were planned independently of each other according to E. Østby, a suggestion made also for temple “D” at Selinus.<sup>48</sup> In short what we know of the architectural lay-out, technique and terracotta decoration all clearly indicate western Greek traditions, independent of Greece itself and also of what we know of Rhodian architecture in the time of Kleoboulos.

The abandonment of temple “B” is demonstrated by the absence of remains later than the end of the 6th century B.C.,<sup>49</sup> and it is suggested that the building was demolished and its function taken over, apparently with some hiatus, in the early part of the 5th century by the so-called Tempio dorico – temple “C”, situated c. 47 m further east.<sup>50</sup> The plan of the site with two major temples, rendered in *all publications*, is therefore inaccurate, as the *temenos* had two distinct phases, a 7th-6th century phase and a 5th century B.C. phase, with two different locations for the temple of Athena in the two periods.<sup>51</sup>

In addition to the Athena temple the *temenos* had a number of smaller buildings, such as *naïskoi* and *oikoi*; their function is not very clear.<sup>52</sup> The great number of small religious buildings at Gela is one of the characteristic features of the sanctuary and a valuable indication of its organization during the early history of the site. The structural remains are rather sporadic but are supplemented by important votive material and architectural terracottas. Although the sporadic remains indicate that there were some *naïskoi* and *thesauroi* on the main plateau, the main evidence is from the zones adjacent to the temple, above all the border on the northern slope.

### *Description of the border area along the northern slope of the Athenaion*

*Naïskos* I, dated to the late 7th century, is a narrow building (9.5 m. x 4.7 m.) with a tripartite division, each room with an entrance facing south. The technique is primitive with walls constructed in *pietrame a secco*. Outside, on its south side, there are traces of burnt-offerings, *θυσίαι*, indicating that the building is indeed a small shrine, as is also suggested by the unusual internal division.<sup>53</sup>

*Naïskos* (?) II, late 7th century, is built in a technique more advanced than that of I, the lower part of the wall constructed in carefully laid limestone slabs. The preserved part of the structure consists of one square room (4 m. x 4 m.) oriented north-south with an entrance on the

east side, but the excavators believe that the structure originally consisted of two more rooms, comparing it to building I and related structures from Sicilian shrines of the Chthonian divinities. The remains do suggest another room on the north side, but the reconstruction of the building with three rooms is very uncertain.<sup>54</sup>

The 7th century buildings were rebuilt, or replaced by other *oikoi/naïskoi*, in the course of the 6th century B.C.<sup>55</sup> The monumentalisation of this part of the *temenos* must have been contemporaneous with the early history of temple “B”. Some of the structures were well-built, oblong, megaron-like structures, *naïskoi* or *oikoi*, nos. VI, VII and VIII, oriented east-west, with measurements vacillating around 16 m. x 8 m., VI and VIII with an inner *adyton*, and VIII with an internal row of three pillars.

The building technique used is that of roughly dressed, or irregular limestone blocks, though in one case isodomic ashlar and orthostates. Votive deposits with dates reaching back to the 7th century B.C., traces of offerings and architectural terracottas support the interpretation of *naïskoi* in one or two cases. The term *oikoi* (secondary, “amenity building”) is preferred by B. Bergquist.<sup>56</sup> The buildings respect the orientation of the *plateiai* and *stenopoi* (nos. 4 and 6), and do in some cases face these. However, I find it worth stressing that in no case do the buildings trespass upon those areas where other *stenopoi* were laid out, even though the date suggested for these is later.

According to G. Fiorentini the period of the first urbanistic planning took place with the laying out of two north-south oriented *stenopoi* (nos. 4 and 6) and an east-west *plateia* in the axis of the plateau, along the northern border of the Athenaion.<sup>57</sup> However, an earlier date for a first systematic urbanization of the site has been suggested by E. De Miro and G. Fiorentini in a later study of the same area,<sup>58</sup> and there may be evidence to support an early date for a rudimentary lay-out of a grid-plan, possibly going back to the early 7th century B.C.

Another group of *naïskoi* or *oikoi*, also dated to the 6th century phase of temple “B”, were studied by P. Orlandini in the western area of the north border of the Athenaion, of which only nos. 1-4 are discussed here.<sup>59</sup> The function of these buildings have, from their first publication, been related to the *temenos*, and they are said to have carried architectural terracottas, small friezes and antefixes, dated to c. 550-530.<sup>60</sup>

The technique used is apparently more primitive than that described for buildings VI, VII, VIII above, though the measurements correspond well with the buildings from the excavation of De Miro and Fiorentini.



The more simple structure could suggest that we have to do not with shrines, but with secondary buildings serving the sanctuary. Buildings 1, 2 and 3 directly face the *plateia*, and form a border on the north side of the Athenaion; building 4 lies awkwardly behind building 1, giving the impression rather of an agglomeration than of town-planning. The plan published by P. Orlandini shows that the south-east corner of building 1 faces the later *stenopos* 2, suggesting a thoroughfare here, in existence prior to the 6th century fortification wall, and in fact corresponding to the later system of *stenopoi* used in the fourth century Timoleonic habitation quarter. There is space between building 1 and 2 for such an early *stenopos*.

Building 3 is apparently also laid out in accordance with the later system of *stenopoi*, as the east wall of this building constitutes the west side of *stenopos* 3.<sup>61</sup> The continuation of *stenopos* 3 coincides with the west wall of the early 7th century temple "A", and the orientation of "A" is exactly the same as that of buildings 1-3, revealing that the basic urban grid-plan existed from the 7th century B.C., that it was respected during the 6th century, and that it formed the basis of the system of *stenopoi* used in the 5th century, and again in the 4th century Timoleonic phase.<sup>62</sup> Thoroughfares contemporary with the earliest temple have therefore decided the orientation of the later *stenopoi* on the north slope.

C. Parisi Presicce's interpretation of the topography of the sanctuaries at the Molino a Vento is unacceptable and not substantiated by any evidence. He believes that the small sanctuaries are placed along the original perimeter of the settlement, so that they surround an area inside which the city developed from the foundation in 688 B.C. until the time of the Carthaginian destruction of Gela in 405 B.C. The proposed comparison with Selinus is also, from this point of view, unwarranted.<sup>63</sup>

#### *Western part of the temenos. Molino di Pietro*

The *temenos* extended further westwards, the Molino di Pietro quarter of the modern city which comprises part of the *temenos* and the border-area of the habitation.<sup>64</sup> A narrowing of the plateau and a slight depression of the terrain probably indicate the border between the city proper and the *temenoi*, which was fortified by a north-south running wall, at least in the 4th century B.C.<sup>65</sup> We know very little about the border between the habitation area, the city proper, and the *temenos*; it is not clearly indicated in the excavation reports, as it cannot be determined in more than general terms.

While the architectural remains in the eastern part of the *temenos* were

accessible for excavation, the remains from the Greek period to the west of the *temenos*, the part of the plateau taken up by the Medieval and modern town, were accessible for examination only in very limited areas.

The finds from the 7th century B.C., in one case possibly the 8th century B.C., consist of Protocorinthian lekythoi, skyphoi, and local imitations of Protocorinthian. This material was not found with, or with an indication of architectural structures, and we cannot know with certainty whether they are the remains of votive deposits and therefore an indication of a sanctuary, or whether they belong to the habitation. The finds are not only from the upper part of the plateau, but also from the northern slope. The latter material cannot be taken as a residue of a downslide from the plateau, as the Greek material succeeds indigenous levels.<sup>66</sup> The finds indicate the extension of the Greek settlement already during its early history, whether the finds are civic or religious. However, it is tempting to interpret the evidence as religious, at least from the 7th century B.C. If the 7th century finds were from a habitation site it would imply a change in function of the area during the 6th century B.C., as the finds from this period undoubtedly are votive,<sup>67</sup> and as religious architecture is indicated by the architectural terracottas. The evidence from the the eastern part of the *temenos* is the same – no functional changes for the buildings on the northern slope of the Athenaion during the 7th and 6th centuries, though there is evidence of this in the 5th century, for which see *infra*. The archaic *temenos* at Gela would therefore have comprised also this area, making the archaic *temenos* about 200-250 m. long, and therefore about half of the size of the archaic city. It is normally taken for granted that the settlement area of Gela corresponded,  *grosso modo*, to the extension of the Medieval city of Gela – Terranova, in fact also suggested by the location of the archaic necropoleis (fig. 2).

In the short space available it is not possible to go into a detailed exposition of the finds with indications of exact find-spots. It is also rather difficult to correlate the results of the several years of the archaeological research undertaken in the area, as no overall site-plan has been published. A short survey of the main results should suffice here:

- Ashlar blocks from the foundation of a *naïskos* or *thesauros*, dated to the latter part of the 6th century by a fragment of an antefix, but probably with an earlier history going back to the earlier part of the century, as indicated by the important votive material found under the floor of the building.<sup>68</sup> The orientation is the same as that of the 7th and 6th century buildings situated in the eastern part of the *temenos*.

- Ashlar blocks from a (massive) foundation and architectural terracottas of early 6th century date (*kalypteres*, fragments of a lateral sima with parts of revetments and tubular water spouts) from a large temple, comparable to, or even larger than temple “B”,<sup>69</sup> the size of the sima, and its decoration – double guilloche and central rosette and lotus with five petals – show that the fragments cannot be referred to temple “B”.

That the Molino di Pietro was an integral and important part of the larger *temenos* comprising all of the eastern part of the Gela plateau, is indicated by these substantial remains of foundations and architectural terracottas found here.

- A deposit of yet another series of terracotta revetments, of a size to suggest a temple larger than temple B. This material is unpublished and not mentioned in the early reports by D. Adamesteanu and P. Orlandini.<sup>70</sup>
- In the same area there is evidence of a smaller building, perhaps a smaller shrine or *thesauros*. Its existence is proven by the famous silenoi antefixes of 5th century date (the earlier series from as early as 470-460), and *kalypteres* with a painted palmette decoration.<sup>71</sup> However, an even earlier phase of this 5th century building is evidenced by archaic ceramic material – vases and *pinakes*, but also architectural terracottas of small size. Only a general archaic date is given in the publication, but the building should surely be related to the phase of the archaic temple described above. The material reveals the existence in this part of the *temenos* of yet another large temple and small *naïskos* or *oikos*, the smaller building with a subsequent 5th century phase, not evidenced as far as the larger building is concerned, although this may, of course, have continued with its old architectural elements. The second phase of the *naïskos*, c. 470-460, may correspond to the construction of temple “C”, indicating a general re-organization of the *temenos* in the early period of the the 5th century B.C.
- Votive material going back to the 7th century B.C. and a fragment of an early archaic Doric capital re-used as fill in the foundation of a structure, habitation or shrine, of 4th century date.<sup>72</sup>
- Remains of an altar 8 m west of the find-place of the silenoi-antefixes, no structural details given.<sup>73</sup>
- Base of an honorary monument, dated with some uncertainty to the archaic period.<sup>74</sup>
- Architectural terracottas, among which are fragments for a pedimental embellishment and an early archaic Doric capital, re-used in a foundation of archaic date (?).<sup>75</sup>



- Remains of votives and 6th century B.C. architectural terracottas, found in a cistern. Although the location of the cistern is not clearly indicated, the material is taken here as further evidence of the religious character of the area under discussion.<sup>76</sup>
- Well with archaic architectural terracottas, among these a silenos-antefix.<sup>77</sup>
- Apart from the evidence listed above there is also material from at least two 4th century wells. This consists of 6th century architectural terracottas, a fragment of a 5th century Doric capital, and archaic pottery, although not certainly from the *temenos*, at least possibly so.<sup>78</sup> Among the material a 6th century graffito with the name of Hera, apparently from the Heraion lying further westwards on the slope near the heroon for Antiphemos, neither sanctuaries being discussed here.<sup>79</sup>
- Sporadic finds of architectural terracottas from a structure, which from the size of the material should rather be a temple than a *naïskos*.<sup>80</sup>
- Two Ionic column capitals and two drums found in a cistern west of the modern museum building, and a pilaster capital recovered from a clandestine excavation.<sup>81</sup> Reconstructed as a Ionic prostyle porch with a column height of c. 3.5 m and dated to the late 6th century. An early, if not the earliest, example of this type of building from the Greek West, and a testimony of a sophisticated architectural embellishment of the *temenos*.<sup>82</sup>
- Evidence from architectural terracottas of 6th century *naïskoi*, found during the construction of the new museum,<sup>83</sup> and fragments of winged sphinxes and equestrian sculptured groups in terracotta, *acroteria* of a very high artistic quality, spanning the early and middle 5th century B.C.<sup>84</sup> There is very little information available about any structural remains, though there is mention of a mass of downfallen tiles on the east side of an ashlar constructed foundation. No plan and orientation of the remains are given in the report.

Though some of the material listed above is of 5th century date I have taken it into account as it indicates the continuity of the area of Molino di Pietro as a *temenos* also in this period, but I have not included it in my plan with the attempted reconstruction of the lay-out of the area (fig. 3).

- Finally the small urban or sub-urban shrine at the “località Carrubazza”.<sup>85</sup> It is situated on the northern slope of the plateau, west of the area Molino di Pietro, and seems to me, topographically, so much part

of the whole *temenos* complex, that we should consider it part of this. Its position in relation to a hypothetical early circuit wall cannot be ascertained. There are remains of a structure 6.50 m x 8 m thus corresponding in size to the small shrines from the north side of the Athenaion. To this structure belongs the earliest silenos-antefix from the site, second half 6th century B.C. and the prototype for the later 5th century series. Also a gorgo-antefix, and other architectural terracottas of late 6th century date have been found here. A votive terracotta of Athena, showing her armed and echoing the type of Athena Parthenos, suggests that the shrine was dedicated to her. The sanctuaries of Gela could well include two different cults for the goddess. The shrine was in use from middle of the 6th century and again in the 4th century B.C.

There may be further evidence overlooked here, but I hope to have been able to outline some of the main indications for the size and complexity of the Molino di Pietro sanctuary or sanctuaries.

A part of the 7th and early 6th century B.C. *temenos* was destroyed by the late 6th century defensive wall, if the reconstruction of its course is correct.<sup>86</sup> However, an analogous situation is found on the north slope of the Athenaion, where the construction of the fortification also infringes violently on the already existing structures. The unrest mirrored in the construction of the wall is explained by Orlandini as a result of the introduction of the tyranny under Kleandros, son of Pantares, about 505 B.C.<sup>87</sup>

The conclusion must be that the western part of the *temenos* extending over a quite large area, had at least three large temples, and a number of smaller *naïskoi* or *thesouroi*. We have no certain evidence for the divinities, apart from Athena, though P. Orlandini has made one suggestion, that of the Rhodian Zeus Atabyrios, mentioned by Polybios in his description of Akragas and the cults of that city (9.27).<sup>88</sup>

We have attempted to interpret all this evidence in the form of a reconstructed plan of the whole *temenos* (fig. 3). Although the evidence shows that the area of Molino di Pietro is a sanctuary comparable to that of the Athenaion, and although this has been recognized since the 1950's, when this part of the plateau was examined by excavations, it is not indicated more than superficially on the published plans of ancient Gela. These always show only the part of the plateau with the 6th century and the 5th century Athenaion, and the buildings bordering on this

on its northern side. The reconstruction of the *temenos* is, of course, somewhat hypothetical as far as the location of the single buildings is concerned, but it should mirror some sort of reality, taking into account the evidence and conclusion above. Three temples, as large as temple “B”, and several *naiiskoi* and *thesauroi* or *oikoi* would require an enormous output from the pottery-workshops, substantiating the ideas about the importance of Gela in the development of western Greek architectural terracotta revetment systems and roof ornamentation.<sup>89</sup>

The relationship between the habitation area and the *temene* at Gela, above all to what extent these were part of the same urban planning and urban structure, is nearly unknown at Gela. However, that there are main elements of an overall plan, a division of the plateau into basic units, where the sanctuaries of the Molino a Vento and Molino di Pietro take up an impressive part, seems demonstrable. The evidence may also suggest that we have to do with two separate *temene*, and to compare the topography of the sanctuaries on the akropolis at Selinus.<sup>90</sup>

These sanctuaries therefore belong in the group of Sicilian urban sanctuaries, which are closely linked with the act of foundation and which are part of a preconceived urban structure.<sup>91</sup>

## Excursus

A digression treating the thorny problem of “Lindioi” and the suggestion of an early settlement on the “akropolis” at Gela could perhaps be excused here. The idea of a primary akropolis-settlement named *Lindioi*, that developed into a later, more extensive city (Gela) is found already in the first, detailed study of the topography of Gela by Schubring, though his suggestion for the location of such an akropolis at Capo Soprano was shown as untenable already by Orsi’s investigations in the early part of this century.<sup>92</sup>

P. Orsi and C. Blinkenberg avoided the interpretation of an akropolis, but understood *Lindioi* rather as a district, the name reflecting the dominant Rhodian element of the foundation.<sup>93</sup> An early, purely Rhodian foundation is not supported by the evidence (Hdt. 3.153 mentions only a Rhodian contingent) and cannot overrule the unambiguous evidence and source of Thucydides; also the archaeological evidence mirrors a Cretan participation, apparently not necessarily smaller than the Rhodian.<sup>94</sup> However, the idea of Orsi and Blinkenberg, that *Lindioi* may have been a part or quarter of the city of Gela is in fact supported by the passage in



Thucydides 5.4.4 where we learn that *Phokaia* was a part or a quarter of Leontinoi.<sup>95</sup>

The idea of an akropolis was taken up by L. Pareti, but he understood this as the fortified city itself, on the central part of the plateau (where the Medieval city of Terranova was laid out as a re-foundation of the site), the eastern sanctuary lying outside the walls.<sup>96</sup> A somewhat similar suggestion is given by J. Bérard.<sup>97</sup> The large-scale investigations of the eastern plateau, undertaken in more recent times, have given the impetus to the widely accepted designation of this area as the akropolis of Gela, found in L. Bernabò Brea, P. Orlandini, and above all P. Orlandini & D. Adamesteanu who erroneously saddle Thucydides with the term ἀκρόπολις, and who misread the text by H. Wentker. Wentker does not interpret *Lindioi* as a Geloan akropolis, on the contrary.<sup>98</sup>

The historically orientated treatises, for example those of A.J. Graham, G.K. Jenkins and W. Leschhorn, interpret the text of Thucydides basically as it stands – *Lindioi* was a preliminary, walled phase of the city and the original name of Gela – and do not deal with the topography of Gela and the problem of its early development, or the location of a first settlement.<sup>99</sup> The solution proposed by H. Wentker is that Gela was colonized in *two phases*, a first “pre-colonization phase” (the *Lindioi*-phase), where the territory of the later city was occupied but not urbanized (the terms used by Thucydides are ἄποικοι and οἰκίζειν), apart from some fortification of the site mentioned by Thucydides; and a later colonization phase (ἔποικοι and κτίζειν, Wentker’s “Zusiedlung” – the Gela-phase ) with the construction of urban features, such as defensive walls, the establishment of sanctuaries and the setting up of political functions. This would be the foundation by the oikists Antiphemos and Entimos.<sup>100</sup> J. De Wever and R. Van Compernelle have studied the terminology of colonization used by Thucydides and find that the evidence does not support this interpretation, the terms ἄποικοι and οἰκίζειν, and ἔποικοι and κτίζειν are used synonymously,<sup>101</sup> and their use cannot therefore mirror different phases or internal developments in settlement patterns

Also M. Casevitz suggests that ἔποικοι in Thuc. 6.4.3 refers to colonists in a general sense, and not in the sense of additional, new or replacement colonists, because “. . . il a été établi que le site de Géla n’était pas occupé avant la fondation de la cité.”<sup>102</sup> But this is precisely what has not been established, if by “foundation of the city” Casevitz means the foundation traditionally dated to 688 B.C.! Gela does belong to the, still expanding, group of colonies which in recent years have shown ev-

idence of a pre-colonial phase,<sup>103</sup> and the discussions of terminology should take into account the possibility of more steps or phases in the establishment of colonies, avoiding too rigid a system of chronology, as shown by R. Martin in his discussion of the colonization of Thasos.<sup>104</sup>

Wentker could indeed be right in suggesting that by *polis*, as used of “*Lindioi*”, Thucydides intends a settlement, however sparsely scattered on a part of the whole plateau, though not necessarily fortified (see *infra*), although this later comprised a more fully urbanized *polis* of Gela. An argument in support of this view is, surely, that if a first settlement was situated exclusively on the eastern-most part of the plateau, it is hardly likely that this area was taken up solely by sanctuaries already from the 7th century B.C. Wentker’s interpretation has been widely accepted by the excavators of Gela, ignoring the rejection by philologists of his reading of Thucydides. The evidence of Greek material from the latter part of the 8th century has been taken as proof of Wentker’s pre-colonial, *Lindioi*, phase, and if we disregard the (according to me) erroneous topographical interpretation of an early *akropolis* settlement, but rather follow the original idea of Wentker who proposed a sporadic presence, the evidence could point in this direction, and is also interpreted in this manner by M.G. Canzanella.<sup>105</sup> The archaeological material does give support to the notion of a pre-688 B.C. Greek presence at Gela, although the material does not point specifically to Rhodes and does not reveal what type of presence;<sup>106</sup> and though the evidence is too tenuous to support the idea of two distinct, separate phases of settlement there is still the question whether such an early Greek settlement on the plateau of Gela in fact had defensive walls.<sup>107</sup> On the basis of the archaeological material this seems rather unlikely, though admittedly such early walls could have been constructed in a perishable material such as sun-dried bricks, leaving no traces.<sup>108</sup> There is very little evidence of defensive walls in the early period of colonization in the Greek West, as already pointed out, and at Gela no evidence before the late 6th century B.C.

## Other sites

### *Syracuse*

Founded 733 from Corinth, had its earliest settlement on the island of Orthigia, where recent excavations by P. Pelagatti<sup>109</sup> have revealed remains of houses from the earliest history of the colony (Pelagatti uses the term Proto-archaic). The technique and size of the single houses are

very similar to the early settlement remains at Megara Hyblaia, but the density of habitation is higher at Syracuse.<sup>110</sup> It has also been possible to reconstruct the main elements of an urban plan, partly on the basis of the Medieval road system and partly with the help of excavation (fig. 4). The urban plan, archaeologically dated to the middle of the 7th century B.C.,<sup>111</sup> was based upon east-west oriented narrow blocks, c. 23-24 m wide, and narrow streets, *stenopoi*, c. 2.50-3 m wide, which correspond to the measures of the habitation blocks and streets at Megara Hyblaia and Kasmenai.<sup>112</sup> The length of the blocks is unknown. A transversal *plateia*, that is a main north-south axis, has not been recognized with certainty, although we may have a trace of it in the Medieval city-plan, if it coincides with one of the streets which even today join the three Greek *temene*, the Athenaion, the Apollonion and the “Tempio Ionico”.<sup>113</sup> A public space, possibly an agora, in use from the earliest history of the site, is hypothetically located west of the temple of Athena and the “Tempio Ionico”, where archaeological investigations have indicated an area free from settlement.<sup>114</sup>

### *Akrai*

Founded 664 B.C. as a sub-colony of Syracuse, a result of the Syracusan policy of subjugation of a large part of south-eastern Sicily.<sup>115</sup> Our insight into the early history of Akrai is limited and the remains of the early city are also sparse, little else being preserved than the Aphrodision.<sup>116</sup> The most conspicuous remains are the theatre and the *bouleuterion* from the third century B.C. However, there are traces of early town-planning which may go back to the time of foundation. The evidence consists of a system of a *plateia* and several *stenopoi*, dated to the late Hellenistic and Roman periods, but according to the excavators based upon a scheme going back to the archaic period.<sup>117</sup> The *plateia* spans the whole city terminating in public spaces, to the west in the possible location of an agora, to the east in the area of the later theatre and *bouleuterion*. The lay-out of the plan looks rudimentary and supports the idea of its antiquity. The *stenopoi* not only intercept the *plateia* at an obtuse angle, not orthogonally, but the axis of the *stenopoi* north of the *plateia* is different from that of the southern *stenopoi*.

As it is demonstrable that Kasmenai and Kamarina were laid out in accordance with a well-ordered urban plan at the time of their foundation, respectively 643 and 598 B.C., we should be able to take it for granted that the urban lay-out at Akrai also goes back to the time of the foundation. The continuation of the original archaic town-plan in Helle-



nistic times was evidenced at Gela, and is also found at Kamerina. Here the city was greatly enlarged in this period, but the orientation and grid-system of the first period of the site were followed. Akrai is therefore a very valuable testimony of early town-planning in Sicily, probably the earliest evidence of an urban lay-out based upon a system of *plateiai* and narrower *stenopoi* (fig. 5).

### *Kasmenai*

The settlement of Kasmenai, founded 643 B.C. by Syracuse on the height of Monte Casale, was laid out according to a well defined plan in the second half of the 7th century B.C., and therefore contemporaneously with the urban lay-out of Syracuse and Akrai (fig. 6). The urban plan consists of at least 38 narrow streets running perpendicularly to the long axis of the plateau and delimiting the single, c. 25 m wide, narrow blocks. Neither traces nor evidence have been found for a larger, transversal street-net and the plan is rather primitive in its lay-out, mirroring the function of the place, a fort or garrison to defend the territory of Syracuse. The situation of the site, topographically as well as morphologically, is wholly unsuitable for a colony, and the nature of the votive material from the settlement's shrine also point to a military function as a *φρούριον*.<sup>118</sup>

The principle of an urban plan based upon narrow rectangular housing blocks, a number of parallel narrow streets – *stenopoi*, cut orthogonally by broader avenues – *plateiai*, a system called “*per strigas*” by F. Castagnoli, and seen by him as the basic element in the Hippodamian town-plan,<sup>119</sup> is normally explained on the basis of the fully developed late 6th and early 5th century town-plans of Naxos, Akragas, Himera, Selinus and other sites. However, on the evidence of Gela, Syracuse and Akrai it could be argued that the rudimentary stage is found here. As to Kasmenai, Di Vita has pointed to a very important aspect. Although the urban plan of this site is primitive, in its lack of a transversal *plateia*, it is more important to focus upon the fact that it is the result of a pre-conceived plan effected on the spot, and not a result of a gradual development – such as we know it from the older Sicilian colonies, such as Naxos, Megara Hyblaia and Syracuse, where the well-defined town-plans should, after all, be dated some generations after the foundation. It is noteworthy that Di Vita has argued for the existence of an embryonic stage of the *per strigas* system at Kasmenai at a time when the traces of the early settlement plans at Syracuse and at Akrai were as yet unknown to him.<sup>120</sup>

### *Naxos*

Chalkidian colony (734 B.C.) founded as the earliest colony in Sicily on a low peninsula on the coast (modern Capo Schisò) on the site of an indigenous settlement, revealed above all by the prehistoric necropolis found in the south-western *temenos* of Aphrodite.

The principal elements of the urban lay-out of the colony, and of its two main phases, have been clarified during the enormously fruitful excavations of P. Pelagatti in the 1970's and 80's, making it the only Chalkidian colony in which the urban development is known in any detail.<sup>121</sup> The first generation of colonization is evidenced by dispersed pottery, mainly from the coastal area of the peninsula, and by the structural remains of a house similar to the early habitation of Megara Hyblaia and Syracuse. Of paramount importance is the fact that the house is oriented in accordance not only with the short course of the adjoining 8th century road, but also with the neighbouring early shrine "C".

By the 7th century B.C. almost all of the peninsula is urbanised. The archaic city, with which we are mainly concerned here, goes back to the 7th century. It was destroyed by Hieron in 476 B.C. and it is the fifth century re-foundation by Hieron which forms the primary source for the urban history of Naxos. The fifth century city was laid out with three east-west oriented *plateiai* and a number of north-south orthogonally placed *stenopoi*, creating a Hippodamian grid-plan where the measurements of the streets and the proportions of the single blocks are comparable with other Sicilian cities of the same period.<sup>122</sup>

Traces of the archaic urban plan have been found under the classical city, in the form of courses of streets, habitation and sanctuaries, and though the traces are rather dispersed they are sufficient to reconstruct some of the principles of the early lay-out. (See fig. 7, letters Sa, Sb, Sd, and the "case" and "sacelli" marked by hatching).

The main points of interest are:

- The gates of the defensive walls, P2, P3, P4, were laid out in accordance with the grid-plan of the archaic city.
- The street "Sf" leading northwards to the coast, the harbour?, and to the archaic necropolis is wider than the other streets, a phenomenon repeated in the classical town-plan.
- There is a main axis, "Sd", joining the *kerameikos* in the north-west with the south-western *temenos*, the so-called Aphrodision, and another axis joining the settlement with the 7th century *temenos* lying outside the city on the other side of the Santa Venera river. The loca-

- tion of the sanctuary of Apollo Archegetes is unknown, and we cannot know how this shrine fitted into the urban plan.
- The orientation of the streets in the eastern part of the city “Se” and “Sg” is different to that of the streets in the western area, but similar to the short course of the 8th century road found in the same area “Sh”. The archaic city is therefore different from the classical in having had two main areas of habitation with different orientations.
  - The orientation of the 7th century shrine “A” in the *temenos* of Aphrodite is in accordance with that of the archaic city (its western part). When temple “B” replaces shrine “A” in the late 6th century, the new orientation of this temple anticipates that of the classical city of Hieron. However the isodomonic defense wall put up between the *temenos* and the city also in the last quarter of the 6th century follows the orientation of the 7th century shrine “A”, and not that of the temple “B” and the later city.
  - The defensive walls along the south-eastern part of the city and along the western side of the sanctuary are dated to the mid 6th century B.C., but they follow the orientation of the early 7th century sanctuary, and, as mentioned above, the gates were laid out in accordance with the 7th. century grid-plan.<sup>123</sup> The later 5th century urban plan is aligned in accordance with the 6th century gates.

This is not the place to go into a detailed description of fortification, but a few points should be brought up. The southern walls are built in a technique of two rows of finely dressed polygonal masonry in the local volcanic-basalt rock, with a fill of small stones and basalt rock, in all about 2 m. wide.

The north-western extension of the city wall is constructed in the same technique, but the rocks used are of massive size, roughly hewn and put in place without dressing, a local technique reflecting the local type of volcanic rock readily available. The greater strength of the wall here along the river Santa Venera, is perhaps explained by a lateral function as a dyke to protect against inundations from the river. It is also noteworthy that the defences are in large measure identified seawards, whereas the landward side, the hinterland-defences, have left no remains; at least they have not been identified so far. Local, possibly hostile, indigenous populations were not an impetus for the first fortifications, but the factor of neighbouring, and hostile, Greek cities was probably of primary importance.

Summing up these points, we note the pre-occupation with orienta-



tion, primarily revealed in the archaic and classical urban plans, but indicated already in the few structural remains from the 8th century B.C.

Noteworthy also is the double orientation of the archaic city with the probability that a public space, possibly an agora, was situated in the middle of the city, where the two, differently oriented areas of the city join up. Separate and differently oriented settlement areas could also reflect colonizers of different origin. There is evidence for this at Naxos where we have traditions of settlers of different origin, not only Chalkidians as found in Thucydides (6.3.1.) and Diod. Sic. (14.88), but also Aegean Naxians, according to Hellanikos ([*FGrHist* 4] fr. 82), and other Ionian and Dorian settlers according to Ephoros ([*FGrHist* 70] fr. 137).<sup>124</sup>

### *Himera*

Himera was founded as a secondary colony by Zanklaians and Syracusan exiles, the Myletidai (Thuc. 6.5.1), traditionally in 648 B.C. (240 years before the final destruction of the city by the Carthaginians in 408 [Diod. Sic. 13.62.4]), and therefore as a mixed Chalkidian-Dorian city, though the oikists were from Zankle and the Chalkidian institutions prevailed, according to Thucydides. It was the only Greek colony, apart from Mylai, on the north coast of Sicily.<sup>125</sup>

Bordering on the territory of the Phoenician city of Soloeis it had a strategic position echoing the nearly contemporary foundation of Selinus on the south coast.<sup>126</sup> The city occupied partly the oblong hill commanding the northern part of the Himera river and partly the coastal plain below, west of the river mouth, though whether this also comprised a harbour settlement near the estuary is as yet unsettled (fig. 9).<sup>127</sup>

Himera has until recently been taken as a site with an urban history rather similar to that of Naxos, with two urban phases, an archaic phase spanning a period from the late 7th century B.C., all of the 6th century and the beginning of the 5th century, and a classical phase originating with the refoundation of Himera by Theron in 476 B.C., after the destruction by the Carthaginians. The two phases had two clearly distinguishable orientations, the archaic phase north-west/south-east, an overall orientation followed by habitation and sanctuary, and the classical town, as was believed, with a new orientation laid out in clearly defined *insulae* oriented east-west. However recent investigations have shown that this view has to be modified: the east-west oriented town with its impressive size and regular lay-out has a history going back to 580-570 B.C. The new interpretation is based upon an examination of the south

*temenos* wall of the sanctuary. The east-west oriented peribolos wall has an early phase dated not later than 580-570 B.C., revealing that the overall new east-west oriented urban lay-out goes this far back.<sup>128</sup> A peribolos wall of the sanctuary oriented north-west/south-east and contemporary with the proto-archaic settlement is, however, as yet undocumented. The first phase of the urban history of the colony is now termed “proto-archaic”, in the terminology used by the excavators, and given a chronological span of only about 50 years, from about 625 B.C. to 580 B.C.

Although the proto-archaic remains on the plateau of Himera are numerous, they are too inconsistent to form the basis for a reconstruction of an urban plan with equally sized lots and regular streets. The houses are of unequal size, with some indication of a scattered location, but the same overall orientation is followed by the quite extensive vestiges of proto-archaic remains, and there are indications that the earliest settlement was after all laid out in accordance with some division of lots including houses and a certain amount of surrounding space, as at Megara Hyblaia. The Early Corinthian ceramic material found in all areas of excavation on many parts of the upper plateau, shows that this was occupied over large tracts from the time of the foundation of the colony.<sup>129</sup> The open tracts of land between the single housing lots may have varied in size, but the remains on the northern part of the plateau seem to suggest that the habitation was relatively close-knit, with remains of the archaic habitation found right on the edge of the plateau. The morphology and the orientation of the northern edge of the plateau may have decided the overall orientation of the archaic structures, habitation and sanctuary. In fact the edge of the plateau also decided the orientation of the northernmost structures of the later archaic phase on this part of the plateau.<sup>130</sup> Structural remains have been laid bare partly under the structures of the later phases, and partly in areas laid out as roads in the later town-plan, indicating that the later re-organisation took no account of the earlier urban lay-out. It is apparent even from these sparse remains that the structures are concentrated in specific areas. The north-eastern part of the plateau was occupied by the sanctuary, which with its earliest shrine, “Temple A” from the last quarter of the 7th century, respects the orientation of the proto-archaic settlement, pointing to an overall urban plan for the two areas already from this period, an orientation maintained during the later urban phases.<sup>131</sup> There is, however, no indication of a specific structural relationship between the sanctuary and the habitation area, although N. Bonacasa has suggested that the area to the west of the sanctuary, where there is no evidence of habitation structures, was

the location of an open public space, perhaps an agora joining the settlement area with the sanctuary.<sup>132</sup> There can be little doubt that the first urban phase at Himera was from the beginning conceived as a whole, with a habitation area and a sanctuary, and with a public space conjoining the two main urban units of the colony.

Some of the proto-archaic remains in the settlement are substantial and with a longer span of life, such as the small shrine, *oikos*, possibly for Demeter, which continued in use in the classical period, revealing not only continuity of cult, but also that the early orientation continued unaltered in the later archaic city.<sup>133</sup>

There is less evidence from the central part of the plateau where the remains are less easy to interpret. One structure dated to the proto-archaic period is, however, not oriented as the other early structures, but in accordance with the later archaic city, that is north-south; the size of the structure is also more suggestive of the later than the earlier.<sup>134</sup> Apart from this there are proto-archaic evidence – walls oriented as normal for this period, circular walls delimiting proto-archaic deposits of uncertain function, and evidence of later archaic structures laid in strata of proto-archaic date though no structural remains are extant.<sup>135</sup>

The eastern plateau of Himera, “Quartiere Est”, situated east of the sanctuary, has a history also going to the 7th century B.C.,<sup>136</sup> and so revealing the extent of the early colony, encompassing the confining zones of the plateau. The small urban sanctuary here had a proto-archaic phase, revealed by the material from a votive deposit and there is also evidence of a terracing going back to this early phase.<sup>137</sup>

The reasons behind the refoundation of Himera with its radical change in lay-out are not known, but we must envisage a violent destruction of the city leading to a new foundation. A system of *insulae* oriented east-west, 32 m wide and divided by 6 m wide *stenopoi* was laid out on large parts of the plateau, comprising also the northern part of the “Piano Lungo” plateau to the east of the main plateau of Himera (fig 9).<sup>138</sup> Although the archaic town-plan is impressive in its size and regularity the remains suggest that even in this second period the habitation was concentrated mainly in certain areas: the northern part (near the sanctuary) and the southern area (near the main route to the *chora*), the central *insula* “12” has revealed few or no remains of the archaic period. The most recent investigations have given indications of a 6.20 m wide north-south oriented *plateia* uniting the main parts of the plateau.<sup>139</sup>

Further remains of the 7th century, proto-archaic phase have been found in the lower city below the north-western corner of the plateau,



where the few structures so far laid bare reveal two orientations, one corresponding to that of the first urban phase of the upper city, the other to the second.<sup>140</sup> Traces of settlement of mid 6th century date west of the temple of Victoria, belonging to the new urban lay-out of the lower city is dated by the excavators to the mid 6th century.<sup>141</sup> This phase is represented by *insulae* laid out in accordance with *stenopoi* oriented north/north west – south/south east (not east – west as on the plateau) and with a width of the single *insulae* as high as 40 m, a quite unusual size of *insulae*, contrary to the 32 m width of the *insulae* on the plateau, and not otherwise attested in the urban centres in Sicily and Magna Graecia. These basic differences in the urban lay-out of lower and upper should perhaps be explained by the relationship of the lower town to the sea, river and harbour, or perhaps rather by socio-economic factors which could differentiate the population of the upper city from that of the lower.<sup>142</sup> In any case it does not exclude the possibility of an overall urban planning of lower and upper city.

The remains of a circuit wall from the arely phase of the colony on the southern edge of the plateau corroborates the estimate of the size of the colony, encompassing the whole plateau. The type of fortification used is that of a stone and earth rampart, an *agger*, a primitive type of fortification, otherwise not known from the Greek colonies, but widely used by the non-Greek settlements.<sup>143</sup> The *agger* at Himera is preserved for a stretch of about 80 m on the southern edge of the plateau, with a north-western/south-eastern orientation and with a small stretch running northwards from the south-east corner. To what extent the whole site was fortified, and the possible location of a gate on the south side, leading to the territory of Akragas, must remain uncertain.<sup>144</sup>

### *Kamarina*

Kamarina was founded by Syracusan settlers on the south coast of Sicily at the estuary of the river Hyparis, as a result of Syracusan territorial expansion in south eastern Sicily.<sup>145</sup> The oikists were Daskon and Menekolos, the one Syracusan, the other Corinthian?,<sup>146</sup> and the foundation took place in 599/8, 135 years after the foundation of Syracuse (Thuc. 6.5.3). The inhabitants, or some of them (possibly only the ruling classes), were expelled from Kamarina about 552 B.C. by Syracuse after an uprising and alliances with the Siculans (Thuc., 46 years after the foundation – Schol. Pind. *Ol.* 5.16; Ps.-Scymn. 295-296).<sup>147</sup> The site was apparently not depopulated, there is the record of a Parmenides from Kamarina, victor in the third year of the 63rd Olympiad (526/5 B.C.)

(Diod. 1.68.6) and there is no archaeological evidence of a break in habitation. The recent excavation of a late archaic well has brought to light material from about 550 to 490/480 B.C. with no chronological breaks.<sup>148</sup> The city was refounded and recolonized by Hippokrates of Gela in 492 B.C.<sup>149</sup> The term used by Thucydides is *κατοικίζειν*, that is to “refound”, and Hippokrates himself is designated *oikistes*. However, there is archaeologically no apparent hiatus between 552 and 491, and Herodotus speaks only of the territory, “until then Syracusan”, being given up to Hippokrates. M. Casevitz has shown that the term is used by Thucydides mainly to designate the settling of inhabitants, but that it is also used for a colonization of a site already inhabited (Thuc. 3.34.4).<sup>150</sup>

The city was destroyed and the population transplanted to Syracuse a few years later in 484 B.C. as a result of Gelon’s vast program of synoikism; the direct occasion was the revolt of Kamarina against Glaukos of Karystos, the governor put in by Gelon.<sup>151</sup>

Kamarina was refounded and recolonized for the third time by the Geloans in 462/1 B.C.<sup>152</sup> The decrease of archaeological evidence for the years c. 484-461 B.C. suggests that the site was uninhabited, or at least only sparsely inhabited until this resettlement of the site.<sup>153</sup> The numismatic evidence supports this reconstruction.<sup>154</sup>

Kamarina was founded on the coast, on a promontory and a plateau extending inland, and during the later history of the site comprised a fortified area of not less than c. 150 hectares. The remains of the earliest history of the site have primarily been laid bare in the western part of the later city, nearest the coast on the promontory proper, near the estuary of the river Hyparis and the harbour. The archaic remains present already from the time of foundation an organic lay-out with an overall alignment of the single structures and the designation of a specific cult area (the Athena Polias sanctuary on the highest part of the plateau). However, the limited extent of excavations make the concept of the overall urban system uncertain. The excavators believe that the foundation consisted of single houses and housing plots with open areas. However, the orientation was followed by the later city plan, probably laid out during the Deinomenid refoundation of 461-460 B.C.<sup>155</sup> That the size and plan of the single *insulae* and *stenopoi* of the early classical city may not have had an archaic origin is suggested by the position of the archaic wall which delimits the west side of the *temenos* of Athena Polias. This wall, although following the orientation of the urban lay-out, does not join up with or delimit its neighbouring *stenopoi*. The substantial foundation

walls of the Athena temple are dated to the first half of the 5th century B.C., but the archaic *temenos* wall shows clearly that the Athena sanctuary had an archaic predecessor to the early classical temple.<sup>156</sup>

The archaic remains were largely obliterated during the 4th century Timoleontic refoundation, but there are some indications of the extent of the early city. There is testimony of the extension of the archaic city as far as 600 m east of the *temenos*,<sup>157</sup> and in *insula* 34, where an archaic well was revealed during the excavation of the so-called “Casa dell’ iscrizione”, though no archaic walls were laid bare.<sup>158</sup> The evidence is sporadic and unhomogeneous, but so substantial as to reveal an orientation different to that of the habitation known from the western part of the settlement.<sup>159</sup> This could be explained by the morphology of the plateau, characterized by marked differences of level, but it is perhaps noteworthy that according to some traditions there were two founders, of Syracusan and Corinthian origin, to whom we might possibly assign respective areas of habitation, though with the common sanctuary of Athena Polias and public space, agora, and necropolis.

The circuit wall raised about the middle of the 6th century B.C. enclosed an area much vaster than the ascertained area of early habitation. There is so far no evidence of a circuit wall contemporary with the foundation, yet another instance of the lack of evidence of defensive walls contemporary with the foundation dates of the colonies.

There are remains of sanctuaries from the earliest history of the colony, not only the archaic western *temenos* wall of the Athena sanctuary of early 6th century date, but also a few structural remains north of the *temenos*, to which are attributed finds of architectural terracottas. However, we have no detailed information about size and orientation of the structures.<sup>160</sup>

The excavation of the two stoas, dated to the 5th and 4th centuries B.C., confirms the existence of a public space in the south-western part of the promontory, and suggests a similar function for this area already from the earliest urban history, because this space has revealed no remains of habitation.<sup>161</sup> Paola Pelagatti believes that this vast area was divided into two main public spaces, a mercantile agora to the west with direct access to the river mouth and harbour, and a civic-political agora to the east, later delimited on its west and north sides by stoas.

Recent investigations at the mouth of the Hipparis river have revealed the remains of an impressive harbour structure situated perpendicularly to the coast, about 300 m. long and joining up with the Kamarina plateau. The mole or breakwater, protecting the harbour at the river mouth



from silting, carried various buildings and magazines. Parts of this structure go back to the archaic period.<sup>162</sup>

Although the urban remains at Kamarina datable to the earliest history of the site are somewhat sporadic and elusive the overall impression is that the colony from its foundation consisted of habitation and sanctuary areas laid out in accordance with an overall orientation, with a public space, likely already from this period divided into two agoras, a mercantile and a political, borne out by the strong mercantile function of Kamarina,<sup>163</sup> and by the harbour installation with its history going back to the archaic period.

### *Megara Hyblaia*

Megara Hyblaia is a site so well-published and documented in all publications treating western Greece, that it is hardly necessary to discuss it here.<sup>164</sup> However, the main aspects should be pointed out in this context. Already in the 8th century B.C., from the earliest history of the site, the urban space is laid out with open spaces and main lines of communication, respected by the later 7th century urban phase (fig. 8). In this period the town-plan may not be strictly orthogonal, but it is systematic and organised according to major and minor transversal axes. The two main arteries oriented north-south are not parallel but converge northwards, and the secondary east-west arteries, converging slightly eastwards, all create a trapezoidal shape for the central public space, the agora, and overall five differently oriented quarters. The five main parts of the settlement, going back to its earliest phase, could mirror different contingents among the early settlers, explained by the tradition of the five villages or districts of the mother city Megara Nisaia (Strabo 8.6.22).<sup>165</sup>

The recent investigation of the southern plateau, still within the confines of the archaic circuit wall, reveals the impressive extent of the early colony.<sup>166</sup> Also the southern site has a well defined urban lay-out from the earliest 8th century history of the colony, with oriented streets and housing, at this location closely aligned with the sea and the neighbouring necropolis.

### *Selinus*

Selinus was founded on two north-south oriented plateaus between the Modione river valley to the west and the Gorgo Cotone river valley to the east. The plateaus of Kamarina and Himera, though smaller, have much in common with the basic morphology of the Selinuntian site. The

southern part of the plateau lying above the sea coast, and always regarded as the akropolis of the city, owes its akropolis-like appearance to an artificial accentuation of the site in a late phase in the history of the site. The northern Manuzza plateau has an oblique orientation in relation to the southern akropolis plateau (fig. 10). The morphology of the saddle joining the two plateaus was accentuated by the construction of the northern gate and fortification in the late 5th century B.C., and the fortification of the sides of the akropolis hill at this time also enhances this impression.<sup>167</sup>

According to Thucydides (6.4.2) Selinus was founded 100 years after the foundation of the mother-colony Megara Hyblaia, that is about 628-627 B.C. The *oikistes* was Pammilos, possibly from the original mother-city, Megara Nisaia, though the text is ambiguous, and a Megara Hyblaian origin cannot be excluded. Diodorus (13.59.4) supports the Eusebian date for the foundation of Selinus, 242 years before its destruction in 409-408, that is c. 651-650 B.C.<sup>168</sup> The Diodorean date is now largely favoured, supported as it is by the chronology of the recently excavated Buffa and Manuzza necropoleis.<sup>169</sup> Thucydides' use of the term *συγκατοικίσειν* may imply a lacuna in the text, perhaps indicating that Pammilos had a co-founder (name lost) from Megara Nisaia, or from Megara Hyblaia if Pammilos represented Megara Nisaia.<sup>170</sup>

The earliest structural remains of the settlement on the akropolis, laid bare by the French investigations in *insula* FF north of the *temenos*,<sup>171</sup> cannot be taken as evidence of town-planning, but it is noteworthy that the technique employed in the wall structures is similar to that used in the earliest habitation on the northern part of the Manuzza plain, suggesting an overall coherence in the urbanization of the two areas.<sup>172</sup>

The early settlement history of Selinus has, above all, been illuminated by the investigations on the north-westernmost area of the Manuzza plateau,<sup>173</sup> revealing Greek dwellings, datable by Corinthian transitional and Early Corinthian material to the latter part of the 7th century B.C. They are laid out in accordance with that of the north-western/south-eastern orientation of the plateau and its main dorsal artery, probably of pre-Greek origin, and followed also by the later archaic *plateiai*. Although there is no evidence of orthogonal planning from this early phase, there is evidence of some overall orientation with narrow *steno-poi* between the single buildings, not broad enough to serve as passage-ways but probably defining ownership, with paving along the external walls. The façades of the structures are drawn back from the streets and

the techniques used in one larger building shows structural traits similar to those known from Megara Hyblaia. The initial phase of the necropolis situated centrally on the Manuzza is contemporaneous with the foundation of the colony.<sup>174</sup>

A. Di Vita believes that there must have been a Greek settlement also on the southernmost part of the akropolis, from the earliest history of the site. There is, however, no certain evidence as to the function of the southern-most part of the akropolis plateau, whereas there is no doubt that the central part of the plateau very early in the history of the site was laid out as a *temenos*. If the idea of Di Vita is accepted the extent of habitation during the late 7th century history of the site is indeed impressive, extending for nearly 700 m from the northernmost point of Manuzza to the southern part of the akropolis.

Selinus thus encompassed, though obviously not in the sense of urbanization as such, but in the sense of urban coherence, the whole area later occupied by the developed, 6th century city. There is already in this early phase an overall coherence between the two central plateaus, the eastern (Marinella) plateau, with an early 7th century shrine (predecessor of the early archaic temple “E1”),<sup>175</sup> and the Malophoros sanctuary on the western Gaggera plateau, with the predecessor of the archaic megaron from the late 7th century B.C.<sup>176</sup> The earliest major temple on the akropolis is not earlier than 580-560 B.C.<sup>177</sup> but there are earlier shrines in the *temenos* going back to the 7th century.<sup>178</sup> There is an overall orientation followed by these early urban features, from the early shrines, predecessors of the temple “E1” and the Malophoros megaron, possibly also oriented in accordance with a major transversal east-west route across the saddle dividing the Manuzza and akropolis plains.<sup>179</sup> In this pattern we have the rudimentary stage of overall orientation of the settlement areas, and the lay-out of the *temenos* on the south part of the akropolis, with a main east-west axis south of the *temenos*, joining up the two valleys and the river mouth harbours – the eastern harbour possibly military, as is suggested by the name of river (Cotone, reflecting the Phoenician *kothon*, i.e. a naval harbour installation), the western harbour possibly commercial, as suggested by the nearby Demeter sanctuary. Such an overall, primordial unity is very different from the idea of Gabrici, who saw a gradual, “diffusionistic”, formation of Selinus, with a diffusion of settlement from the area of the Malophoros sanctuary with a (hypothetical) early harbour settlement at the mouth of the Modione river, to the akropolis, and finally encompassing the habitation area on the Manuzza plain.<sup>180</sup>



The second urban phase of the colony, datable to c. 580-560 B.C., reveals clear evidence of overall urban planning, the laying out of *insulae* in a *per strigas* system, encompassing also the eastern and western valleys, not respecting the geomorphological borders of the akropolis (fig. 10).

The French excavations have shown that this town-plan, until recently known from the northern part of the akropolis, comprised also an area north of this, north of the later 5th and 4th century gate. These *insulae* are also of archaic date, and were only at a later date "cut off" from the southern plateau by the construction of the 5th century B.C. fortification at this point, later enlarged by the so-called Hermocratean wall and gate system, which created an artificial saddle between the akropolis and the Manuzza plateau. The orientation of the *insulae* north of the later gate follows that of the *insulae* on the akropolis and extended further northwards, as far north as to comprise a 6th *insula* and about one third of the Manuzza plain. A continuation of the roads and *insulae* to the west of the akropolis, between this and the Modione river, is also demonstrable.<sup>181</sup> The most northern east-west oriented *plateia* joined the Manuzza plateau with the Gaggera sanctuaries, and further westwards, about 13 km north-west of Selinus, with the quarry Cave di Cusa.<sup>182</sup>

The roads and *insulae* probably extended over a wide area, from the western river valley to the eastern. There is evidence of this for the western Modione valley<sup>183</sup> and in the eastern Gorgo Cotone valley. The recently examined circuit wall may give us an indication of the eastern limit of the city.<sup>184</sup>

Somewhere further northwards the orientation of the streets and *insulae* changed to north-western/south-eastern orientation, this change probably took place on the northern side of the (hypothetical) location of a public area, an agora.

The system of *insulae*, *plateiai* and *stenopoi* dated to this phase, revealed by the investigations on the Manuzza, maintains the orientation of the earlier phase. It is an indication of the internal coherence that the measurements employed in the laying out of *insulae* and *plateiai* correspond to those used on the akropolis.<sup>185</sup>

It is noteworthy that the orientation followed by structures laid bare on the south-eastern part of the plateau is different to those used on the akropolis and those of the northern Manuzza plateau.<sup>186</sup> There is therefore some indication of yet a third habitation area in the southern part of the Manuzza plain, perhaps, to judge from the type of material, identifiable as a craftsmen's or artisans' quarter. A. Rallo has suggested that the

differentiation of orientation of these different “quarters” could reflect different ethnic groups,<sup>187</sup> and it is tempting to imagine a public area, such as an agora, at the junction of these separate areas, not least with the rather similar location of the agora at Megara Hyblaia in mind.<sup>188</sup>

According to the interpretations of the French scholars,<sup>189</sup> the southern part of the akropolis was not laid out to habitation before the Hellenistic period, and they do not accept the idea of an east-west transversal route across the akropolis south of the archaic *temenos* area. Contrary to this A. Di Vita stresses the importance of this artery of communication from the period of the first major urbanistic planning of the site, linking up, across the akropolis, the southern and western river valleys near the river harbours.<sup>190</sup> This does seem rather convincing, enhancing the importance of the archaic *temenos* and emphasizing the coherence of this sanctuary with the early 6th century temple “E1” on the Marinella plateau,<sup>191</sup> and the three 6th century sanctuaries on the Gaggera plateau – the Malophoros Megaron, the so-called “Temple M” (possibly a monumental fountain) and the recently excavated temple south of the Malophoros sanctuary.<sup>192</sup>

So far none of the defensive walls of the “akropolis” can be dated back to the archaic period or to the classical, earlier than the Hermocratean structures of after 409 B.C.<sup>193</sup> Remains of circuit walls, with a history going back to the earlier history of the site, in use during the Carthaginian siege in 409 (Diod. 13.54-59), could be the wall structures in the Gorgo Cotone valley and in the Modione valley.<sup>194</sup> If there were archaic circuit walls these would have delimited Selinus along its outer (in respect to the main plateaus) more extensive habitation areas. However, the remains in the Cotone valley, recently examined by German scholars are dated to the first quarter of the 5th century B.C.,<sup>195</sup> and so far the picture of the lack of evidence of early defensive walls is apparently valid also for the site of Selinus.

## Recapitulation

– Urbanization as such is not necessarily a basic element of *polis*-formation.<sup>196</sup> Nor, probably, are fortifications.<sup>197</sup> The evidence from the Greek West, as outlined above, has shown that there is a notable lack of defensive walls and circuit walls unequivocally datable to the early period of colonization. This certainly supports the views of A.M. Snodgrass and P. Ducrey for the Greek mainland.

Contrary to this the development of early Greek town-planning must be an essential element in *polis*-formation. The contribution of the western Greek colonies to Greek town-planning is covered by these main points:

- The overall and communal *division of land* in lots – in the city as well as in the *chora*.
- The preoccupation, if not obsession, with *orientations* reflected in the different orientations of the habitation units at Kroton, Megara Hyblaia, Naxos, Akrai and Selinus, in fact at most of the sites discussed above.

The phenomenon of the differently oriented quarters of the towns may be explained simply by the morphological condition of the terrains,<sup>198</sup> but it seems that there is also convincing evidence that the phenomenon could be explained by the presence of different ethnic groups. D. Asheri has pointed to yet another phenomenon, that the successive phases of settlement can entail alterations of orientations, – to distinguish new properties from previous, a practice well known from Roman surveying.<sup>199</sup>

The point under discussion here is also documented by the overall common orientation of civic and religious units, visible at several sites. At Naxos we have the preoccupation with orientation in the different resolves of what to respect and what not to respect, observable in the Aphrodision *temenos* and the contingent areas of the colony. Other examples of this have been given above.

Selinus offers an example of axial planing on an enormous scale, probably originating in the first phase of settlement. The overall orientations encompassing the outlying sanctuaries could suggest that these are not really to be understood as sub-urban sanctuaries, but as urban, as they belong in an overall, urban unity.

The role of the oikist here may have been of paramount importance, as suggested by G. P. R. Métraux and I. Malkin.<sup>200</sup> And this whole subject seems more suggestive of a “communal activity, in the service of the polity as a whole”.<sup>201</sup>

- Town-planning found in an embryonic phase, for example at Naxos, and in a developed form in the secondary colonies. That urban planning based upon the *per strigas* prevails in the secondary colonies presupposes that such phenomena had already developed in the mother colonies.



With this indication of autonomous development of Greek urbanplanning in the West, I cannot avoid the conclusion that western Greece was more centre than periphery.

- The early development of the *per strigas* system of townplanning, which created one of the basic prerequisites for the later development of orthogonal town-planning.
- The importance of the *temene*, conceived as an integral part of the settlement and the urban-plan from the earliest period, and at some sites taking up an impressive part of the overall settlement area. This is also the case at Gela, and as I have documented we have here the additional evidence of the conspicuous differences and development of size and lay-out of a sanctuary, of the iconography of the major divinity, – in regard to the sanctuary of the mother city.
- The modest evidence for public and civic centres such as an agora. There are primarily the examples of Megara Hyblaia and Metapontion, but there are also the interesting, though indirect, indications for such public areas at Naxos, Syracuse, Akrai, Selinus and Himera.
- Although the evidence from the Greek West may in some respects appear rather limited, it is of primary importance when discussing the problems of *polis*-formation. One of the most important aspects of these new sites is the degree of planning or other *centralised activity* that they display.

The model of settlement sometimes changed from one of sporadic centrifugal growth to one of regular lay-out, clearly planned by some kind of central authority that was concerned with the community as a whole. Present evidence suggests that that moment arrived in the eighth century B.C. at the latest, after which the process was strongly re-enforced by the colonising movement.<sup>202</sup>

## Abbreviations

*BTCGI* = G. Nenci & G. Vallet (eds.), *Bibliografia topografica della colonizzazione greca in Italia e nelle Isole Tirreniche I*- (Pisa-Roma 1977-).

*Fortification du monde grec* = P. Leriche & H. Tréziny (eds.), *La fortification dans l'histoire du monde grec* (Actes du colloque international. La fortification et sa place

- dans l'histoire politique, culturelle et sociale du monde grec. Valbonne, Décembre 1982) (Paris 1986).
- GCNP* = J.-P. Descœudres (ed.), *Greek Colonists and Native Populations*. (Proceedings of the First Australian Congress of Classical Archaeology held in honour of Emeritus Professor A.D. Trendall. Sydney 1985) (Canberra-Oxford 1990).
- Gela. Ritrovamenti vari* = P. Orlandini & D. Adamesteanu, "Gela. Ritrovamenti vari," *NSc* (1956) 203-401.
- Gela. Nuovi scavi* = P. Orlandini & D. Adamesteanu, "Gela. Nuovi scavi," *NSc* (1960) 67-246.
- Gela. L'acropoli* = P. Orlandini & D. Adamesteanu, "Gela. L'acropoli di Gela," *NSc* (1962) 340-408.
- Himera I* = A. Adriani et al., *Himera I. Campagne di scavo 1963 1965* (Roma 1970).
- Himera II* = N. Allegro et al., *Himera II. Campagne di scavo 1966-1973* (Roma 1976).
- Insedimenti* = *Insedimenti coloniali greci in Sicilia nell' VIII e VII secolo a. C.* (Atti della 2a riunione scientifica dell' Università di Catania). *CronCatania* 17 (1978 [1980]).
- Lexicon of Greek and Roman Cities* = A.M. Hakkert (ed.), *Lexicon of the Greek and Roman Cities and Place Names in Antiquity* (Amsterdam 1994-)
- Magna Grecia* = G. Pugliese Carratelli (ed.), *Magna Grecia. Il Mediterraneo, le metropoli e la fondazione delle colonie* (Milano 1985).
- Sicilia antica* = E. Gabba & G. Vallet (eds.), *La Sicilia antica I-II* (Napoli 1980).
- Tempio = Il tempio greco in Sicilia. Architettura e culti.* (Atti della la riunione scientifica dell' Università di Catania). *CronCatania* 16 (1977 [1985]).

## Notes

- 1 I am greatly indebted to Mogens Herman Hansen and Thomas Heine Nielsen, and to the participants in the Seminar in Copenhagen for their comments on an early version of this paper. Above all I am grateful to Erik Østby for his constructive criticism, not least in regard to the problems of Geloan topography.
- 2 E. Greco, "La città," *AttiTaranto* 28 (1988) 307.
- 3 J. Boardman, *Excavations in Chios 1952-55. BSA Suppl.* 6 (1967); A. Cambitoglou et al. *Zagora 1* (Sydney 1971); A. Cambitoglou et al. *Zagora 2* (Athens 1988); H. Drerup, *Griechische Baukunst in geometrischer Zeit (Arch. Hom. II.O)* (Göttingen 1969); H. Drerup, "Bürgergemeinschaft und Stadtentwicklung in Griechenland," in *Wohnungsbau im Altertum. Diskussionen zur Archäologischen Bauforschung* 3 (Berlin 1978) 87-101; *Acts of the Convegno internazionale - Grecia, Italia e Sicilia nell'VIII e VII secolo a. C.* (Athens 15-20 October 1979) in *ASatene* 59-61 (1981-1983); A. Mazarakis-Ainian, "Geometric Eretria," *AntK* 20 (1987) 3-24.
- 4 See e.g. D. Asheri, "Osservazioni sulle origini dell'urbanistica ippodamea," *RivStorIt* 87 (1975) 6-7.
- 5 Vroulia: Drerup (*supra* n. 1 [1969]) 51-52. Torben Melander has pointed out difficulties in the normal interpretation of the early town-plan, probably rather governed by the morphology of the site and the lay-out of the defensive wall: "Vroulia: Town Plan and

Gate," in S. Dietz & I. Papachristodoulou (eds.), *Archaeology in the Dodecanese* (Copenhagen 1988) 83-87.

6 G. Gullini, "Tre note di urbanistica antica," *AttiCSDir* 5 (1973-1974) 183-189. Also Aleksandra Coucouzeli has argued recently at a seminar in Copenhagen that the geometric settlement at Zagora shows a unique and complex grid-plan, well up to colonial standards and predating these, *ActaHyp* 7 (1996) forthcoming.

7 G.M.A. Hanfmann, "Sardis, Old Smyrna, Pyrgoi. New light on an old problem," *Anatolia* 22 (1981-1983 [1989]) 243-244.

8 Cf. also E. Greco & M. Torelli, *Storia dell'urbanistica. Il mondo greco* (1983) 127; F. Kolb, *Die Stadt im Altertum* (München 1984) 98-99.

9 As in R. Martin, *L'urbanisme dans la Grèce ancienne* <sup>2</sup> (Paris 1974). However for the earliest urban history in the western Greek world see now Greco & Torelli (*supra* n. 8) 149-170; A. Giuliano, "Urbanistica delle città greche," *Xenia* 7 (1984) 13-22.

10 The bibliography is vast; see *BTCGI* for the single sites A. Di Vita, "L'Urbanistica più antica delle colonie di Magna Grecia e di Sicilia: problemi e riflessioni," *ASAtene* 59 (1981) 63-77; A. Di Vita, "Town-planning in the Greek Colonies of Sicily from the Time of their Foundations to the Punic Wars," in *GCNP* 343-363; *Sicilia Antica*, I,2, 240-260; G. Vallet, "L'apporto dell'urbanistica. Le fait urbain en Grèce et en Sicile à l'époque archaïque," *Kokalos* 30-31 (1984-1985) 133-155; A. Wasowicz, "École d'urbanisme de la Sicile et de la Grande Grèce à l'époque archaïque," *RivTopAnt* 2 (1992) 9-22.

11 O. Belvedere, "Himera, Naxos e Camarina, tre casi di urbanistica coloniale," *Xenia* 13 (1987) 5-20; J. Szidat, "Hippodamos von Milet. Seine Rolle in Theorie und Praxis der griechischen Stadtplanung," *BJb* 180 (1980) 31-44; H.-J. Gehrke, "Bemerkungen zu Hippodamos von Milet," in W. Schuller et al. (ed.), *Demokratie und Architektur. Wohnen in der Klassischen Polis* II (München 1989) 58-63.

12 G. Vallet, "La cité et son territoire dans les colonies grecques d'occident," *AttiTaran-to* 7 (1968) 69-80; R. Martin, "Rapports entre les structures urbaines et les modes de division et d'exploitation du territoire," in M. I. Finley (ed.), *Problèmes de la terre en Grèce ancienne* (Paris-La Haye 1973) 97-112.; Asheri (*supra* n. 4) 10-11; G. P. R. Métraux, *Land-use and City-planning in the Archaic Period* (New York-London 1978) 1-3, 81. See also G. De Sensi Sestito, *La Calabria in età arcaica e classica* (Roma 1984) 10-11, 124-125, with an extensive bibliography covering this question.

13 D. Ridgway, *The First Western Greeks* (Cambridge 1992) 91-96, fig. 25.

14 Surveys in F. Cordano, "La fondazione delle colonie greche," in: *Magna Grecia* (1985) 265-336; E. Greco, "Topografia archeologica della Magna Grecia," in *Magna Grecia* (1985) 337-367; P. G. Guzzo, *Le città scomparse della Magna Grecia* (Roma 1982).

15 C. Bencivenga Trillmich, "Resti di casa greca di età arcaica sull'acropoli di Elea," *MEFRA* 95 (1983) 417-448; *idem*, "Elea: Problems of the Relationship between City and Territory, and of Urban Organization in the Archaic Period," in *GCNP*, 365-371; for the 6th century B.C. wall-circuit see F. Krinzing, "Die Stadtmauern von Velia," in *Fortification du monde grec*, 121-124.

16 B. Hänsel, "Policoro. Scavi eseguiti nell'area dell'acropoli di Eraclea negli anni 1965-67," *NSc* (1973) 438 dates the wall to the 7th century; D. Adamesteanu, "Siris – il problema topografico," *AttiTaran-to* 20 (1984) 82-83. The evidence suggests that the Policoro plateau, or at least the eastern, akropolis-like, part was fortified already in the 8th century B.C., possibly with the areas of habitation dispersed in several nuclei, though these have not as yet been identified, and Adamesteanu dates the wall as contemporaneous



with the foundation; see also *idem*, "Quadro storico delle fortificazioni greche della Sicilia e della Magna Grecia," in *Fortification du monde grec*, 106-107.

17 M. Papagano, "Ricerche sulla cinta muraria di Cuma," *MEFRA* 105 (1993) 860-863.

18 H. Tréziny, *Kaulonia I. Sondages sur la fortification nord (1982-1985). Cahiers du Centre Jean Bérard* (Napoli 1989). The earliest phase of the circuit wall of Kaulonia may go back to the second half of the 6th century B.C., with the possible use of clay bricks for the upper part of the walls though there is no direct evidence.

19 F.G. Lo Porto, "Topografia antica di Taranto," *AttiTaranto* 10 (1971) 358-359; E. Greco, "Dal territorio alla città: lo sviluppo di Taranto," *AnnAstorAnt* 3 (1981) 153-154.

20 D. Mertens, "Metapont. Ein neuer Plan des Stadtzentrums," *AA* (1985) 664-668; J. Coleman Carter, "Sanctuaries in the chora of Metaponto," in S.E. Alcock & R. Osborne (eds.), *Placing the Gods. Sanctuaries and Sacred Space in Ancient Greece* (Oxford 1994) 165-168.

21 M. Barra Bagnasco, "Problemi di urbanistica locrese," *AttiTaranto* 16 (1977) 375-408; *idem*, *Locri Epizefiri. Organizzazione dello spazio urbano e del territorio nel quadro della cultura della Grecia di Occidente* (Chiaravalla 1984), 21-31. Barra Bagnasco points out that a circuit wall should not be expected in the foundation phase of the city, the earlier part of the 7th century B.C., which in fact can be seen as a normal phenomenon in the western Greek colonies. The earliest phase of the circuit wall at Lokroi is dated to the 6th century B.C.

22 Lo Porto (*supra* n. 19) 361-2, pl. 59; F. Porsia & M. Scionti, *Taranto (Le città nella storia d'Italia)* (Roma-Bari 1989) 7-8 fig. 10; Greco (*supra* n. 19) 139-57.

23 Greco (*supra* n. 19) 150.

24 R. Spadea, "Crotone. La topografia," *AttiTaranto* 23 (1983) 119-166, esp. 124-138; *idem*, "replica," *loc. cit.* 412.

25 Spadea (*supra* n. 24) 132.

26 Spadea (*supra* n. 24) 134. This is a suggestion put forward not only here but at other sites, also in Sicily, and it is obviously a possibility to be taken into consideration. The problem is that we have so little structural evidence. The best known example of mud brick walls are those of Old Smyrna: R.V. Nicholls, "Old Smyrna: The Iron Age Fortifications," *BSA* 53-54 (1958-1959) esp. 100-105, 117-119 for discussion of the structural details. However, as demonstrated here also mud brick walls presupposes at least some stone substructures and probably some use of outer stone-facing, at least for the lower part of the wall.

27 For the mainly 6th century date of the circuit walls in Sicily see C. Parisi Presicce, "La funzione delle aree sacre nell'organizzazione urbanistica primitiva delle colonie greche alla luce della scoperta di un nuovo santuario periferico di Selinunte," *ArchCl* 36 (1984) 101-103. The impressive defensive walls of S. Mauro at Leontinoi, tentatively dated to the 8th-7th century would be an important testimony of early urbanization, but the evidence for such an early date is unhappily rather uncertain: see G. Rizza, "Leontini nell'VIII e nel VII secolo a.C.," in *Insedimenti*, 26-37. In fact, H. Tréziny suggests that the first phase of the fortification belong in the second half of the 6th century, with a fourth century date for the second phase: "Les techniques grecques de fortification et leur diffusion à la périphérie du monde grec d'Occident," in *Fortification du monde grec*, 186-187; *idem* "L'étude archéologique des fortifications grecques," *Dossiers d'Archeologie* 172 (1992) 62. The circuit wall at Kasmenai, often dated as contemporaneous with the foundation of 643 B.C., probably dates from the 6th century: D. Moreschini, "Monte Casale," *BTCGI* 10 (1992) 290. The late 6th century archaic circuit walls of Megara Hyblaia – G.

Vallet, F. Villard & P. Auberson, *Megara Hyblaia 3. Guida agli scavi* (Roma 1983) 97-101 – have now been shown to have had a 7th century phase - H. Tréziny, *loc. cit.* 188.

28 W. Leschhorn, "Gründer der Stadt". *Studien zu einem politisch-religiösen Phänomen der Griechischen Geschichte* (Stuttgart 1984) 43-48 gives a useful survey of the traditions.

29 Steph. Byz., 417.21 καὶ Σικελίας πόλις Λίνδος, probably with Thucydides as source, giving a proper name rather than an *ethnikon*.

30 I am grateful to Mogens Herman Hansen for these readings of the difficult passage in Thucydides. For a more detailed discussion see the excursus *infra* pp. 332-334.

31 P. Orlandini, "Gela – Topografia dei Santuari e documentazione archeologica dei culti," *RIA* 15 (1968) 20-30, with the epigraphic and votive evidence.

32 The existence of an Athena cult at Gela and the designation *Lindioi* in Thucydides does not *per se* prove that the cult was that of Athana Lindia, as pointed out already by J. Bérard, *La Colonisation Grecque de l'Italie Méridionale et de la Sicilie dans l'Antiquité* (Paris 1957) 237 n.1; see also U. Bianchi, "La dea di Lindos," *Epigraphica* 19 (1957) 15-16. G. Zuntz has shown (*Persephone. Three Essays on Religion and Thought in Magna Graecia* [Oxford 1971] 117, 399) that the terracotta statuettes of an enthroned goddess known from Gela and Akragas, for which the terminology Athana Lindia has been used since the study by C. Blinkenberg (*L'Image d'Athana Lindia* [Copenhagen 1917]), are not known from Rhodes and more likely represent Demeter. See also *CAH* (1988), plates to vol. IV, 190 *ad* no. 254 (R.J.A. Wilson), and E. Lippolis, "Il santuario di Athana a Lindo," *ASAtene* 66-67 (1988-1989) 112 "la tipologia votiva delle statue di divinità in trono è talmente generica da rendere inattendibile un rapporto con il culto dell'Athana di Lindo".

Apart from the deity involved, the Lindian and Geloan cult places have very little in common, not only topographically and architecturally, cf. *infra*, but also as far as the iconography of the deity is concerned; and it not possible to use the evidence of the Geloan statuettes' iconography to date the re-organisation of the sanctuary at Lindos by Kleoboulos as suggested by P. Orlandini, (*supra* n. 31) 28.

33 C. Blinkenberg, *Lindos I. Fouilles de l'acropole. Les petits objets* (Copenhagen 1931) 12-13, 15; see also Lippolis, (*supra* n. 32) 103-111.

34 S.C. Humphreys rejects the evidence of the *anathemata* listed in the Lindian Chronicle as untrustworthy ("Colonia e madre patria nella Grecia antica," *RivStItal* 78 (1966) 914-915). However, it is probably possible to separate the obvious forgeries from the more trustworthy evidence, see for instance L. H. Jeffery, *Archaic Greece. The City-States c. 700-500 B.C* (London 1976) 197-198; U. Brackertz, *Zum Problem der Schutzgottheiten griechischer Städte* (Berlin 1976) 106-108.

35 E. Dyggve, *Lindos III.1. Le Sanctuaire d'Athana Lindia et l' Architecture Lindienne*. (Copenhagen 1960) 114, 126. H. Berve, *Die Tyrannis bei den Griechen* (München 1967) 119, 588 follows the excavators of Lindos for the date of Kleoboulos and the re-organisation of the sanctuary (mid-6th century); L.H. Jeffery (*supra* n. 34) 198, places the tyrant in the first half of the century, on the basis of numismatic evidence (?).

36 L. Bernabò Brea, "L'Athanaion di Gela e le sue terracotte architettoniche," *ASAtene* 27-29 (1949-51) 11, fig. 2.

37 F. Villard & G. Vallet, "Megara Hyblaea II," *MEFR* 64 (1952) 11, fig. 4, 22, fig. 14; P. Pelagatti, "Siracusa. Elementi dell'abitato di Ortigia nell'VIII e nel VII sec. a.C.," in *Insediamenti*, 127-128, fig. 7c, with further refs. A similar structural technique is found in the Cyclades, for instance at Emporion in "House A", from the same period, late 8th/early 7th century - (J. Boardman [*supra* n. 2] 42, pl. 9c), and also in 8th/7th century religious architecture in Greece, for instance the early Apollo temple at Eretria dated to about 670-



650 (P. Auberson, *Temple d'Apollon Daphnéphors (Eretria I)* (Bern 1968) 13-15, pl. II, figs. 3-4).

38 Bernabò Brea (*supra* n. 36) 11-12, fig. 2; I. Romeo, "Sacelli arcaici senza peristasi nella Sicilia greca," *Xenia* 17 (1989) 16.19, pl. 5.

39 See *infra*. This is possibly also the case at Akrai, where a change in the orientation of the preparatory cutting of the rock in the substructure of the temple of Aphrodite, from the 2nd half of the 6th century B.C., could perhaps reflect the orientation of a first, 7th century ?, shrine from the period of the foundation, see L. Bernabò Brea, *Il tempio di Afrodite di Akrai (Cahiers Centre Jean Bérard X)* (Napoli 1986) 15, fig. 18.

40 Bernabò Brea (*supra* n. 36) 9-10. C. Wikander dates the formation of the Geloan re-treatment sima to shortly after 600 B.C. (*Sicilian Architectural Terracottas. A Reappraisal (ActaInstRomRegSue* ser. 8, XV) (Stockholm 1986) 11).

41 Bernabò Brea (*supra* n. 36); Wikander (*supra* n. 40) 32-35.

42 (*Supra* n. 40) 34, n. 117.

43 Bernabò Brea (*supra* n. 36) 15. In the limited space available we cannot discuss the remains of a few flimsy walls *a secco* revealed inside temple "B" (medieval according to P. Orsi ("Gela, Scavi del 1900-1907," *MonAnt* 17 [1907] 38), "pre-sacellum A" according to Bernabò Brea, 11; nor the structure to the east of temple "B" (an altar according to P. Orsi, though not oriented in accordance with either of these), the remains of another shrine contemporary to phase "A" according to Bernabò Brea 13, 17-19, and interpreted as a shrine postdating temple "B" according to P. Orlandini (*supra* n. 31) 61 n. 34.

44 *Gela. Ritrovamenti vari*, 205-214.

45 The only evidence seems to be the openings in the wall of shrine "A", mirroring the space necessary for cella walls of the later temple "B".

46 S. Stucchi, "Alla ricerca della cella del tempio di Segesta," *QuadIstStArch* 6-8 (1961) 13-20, for the Geloan example pp. 16-17. Although we now know that the temple of Segesta does not belong in this group this could still be a valid observation.

47 E. Østby, "The temple of Casa Marafioti at Locri and some related buildings," *ActaAArtHist* 8 (1978) 41.

48 Østby (*supra* n. 47) 43-44.

49 Orsi (*supra* n. 43) 40. D. Adamesteanu suggests a date as early as the mid 6th century in the publication of the votive deposit from the south side of the *temenos* (*Gela. Ritrovamenti vari*, 214).

50 Bernabò Brea (*supra* n. 36) 91. Temple "C", not discussed here, is attributed to the Deinomids by D. Mertens, *Der Tempel von Segesta* (Mainz a. R. 1984) 149, and T. Van Compernelle, "Architecture et tyrannie," *AntCl* 58 (1989) 68-69.

51 B. Pace, *Arte e civiltà della Sicilia antica*, III (Milano 1946) 586 suggests that the temple "C" was dedicated to Demeter and Persephone, as there "ought to be" such a temple on the heights at Gela, but the evidence shows that "C" replaces "B", and therefore should be understood as an Athena temple.

52 The terminology – *sacelli*, *naïskoi*, *oikoi* and *thesouroi* is used rather indiscriminately. We use *naïskos*, when remains suggest cult in, or by, the building; *oikoi* is used only as a very general term, to suggest a building with some sort of service function within the *temenos*. The structures are only described in general terms as precise analyses are found in I. Romeo (*supra* n. 38).

53 G. Fiorentini, "Sacelli sull'Acropoli di Gela e a Monte Adranone nella valle del Belice," in *Tempio*, 105. Early 7th century B.C. is proposed by Fiorentini in G. Fiorentini & E. De Miro, "Gela proto-arcaica," *ASAtene* 59 (1983) 92 on the basis of Protocorinthian



and local geometric wares, but this is related to fragile evidence of an earlier structure, dated as contemporaneous with the foundation of the colony by E. De Miro & G. Fiorentini, "Gela – Scavi dell'acropoli 1973-1975," *Kokalos* 22-23 (1976-1977) 431. The tripartite division is not commonly found in shrines in a Greek context, but it has recently been suggested for an early Metroon on the agora at Athens by S. Miller, in M.H. Hansen and K. Raaflaub (eds.), *Studies in the Ancient Greek Polis*. Papers from the Copenhagen Polis Centre 2. *Historia Einzelschriften* 95 (Stuttgart 1995) 133-56.

54 Fiorentini (*supra* n. 53) 105-106 with refs. to Sicilian comparanda. E. De Miro, "Influenze egeo-cretese nei santuari ctoni dell'area geloo-agrigenina," in *Studi in Onore di Doro Levi*, II (*CronCatania* 13 [1974]) (Catania 1978) 202-207.

55 Fiorentini (*supra* n. 53) 106-110.

56 B. Bergquist, "The Archaic Temenos in Western Greece. A Survey and two Inquiries," in *Le Sanctuaire Grec. EntreHardt* 37 (1992) 138-139. However, the interpretation of building VIII as a *naïskos* is supported by the similar, though larger and earlier, temple ("edificio h") in Megara Hyblaia: G. Vallet, F. Villard & P. Auberson, *Megara Hyblaea*. 3. *Guida agli scavi. Introduzione alla storia di una città coloniale d'occidente* (Rome 1983) 69-70, fig. 50.

57 Fiorentini (*supra* n. 53) 106-107.

58 De Miro & Fiorentini (*supra* n. 53) 92.

59 Orlandini in *Gela. L'acropoli*; Orlandini (*supra* n. 31) 22-23. These finds are not easy to relate to the excavation plans of the area further eastwards given in G. Fiorentini and in De Miro & Fiorentini (*supra* n. 53), and discussed above.

60 D. Adamesteanu, "Nuove antefisse dipinte da Gela," *ArchCl* 10 (1958) 9-13.

61 B. Bergquist (*supra* n. 56) 138 suggests that Orlandini's buildings 2 and 3 should be combined into one long, stoa-like building, but this does not affect the argument put forward here.

62 For this see P. Orlandini, "Storia e topografia di Gela dal 405 al 282 a.C. alla luce delle nuove scoperte archeologiche," *Kokalos* 2 (1956) 158-176.

63 C. Parisi Presicce (*supra* n. 27) 78-81.

64 *Gela. Ritrovamenti vari*, 229; *Gela. Nuovi scavi*, 87; Orlandini (*supra* n. 31) 59; G. Canzanella, "Gela," *BTCGI* VIII (1990) 14, 17.

65 Orlandini & Adamesteanu, in *Gela. Nuovi scavi*, 89-91 (Largo Calvario), suggesting that there was a fortification here also in the archaic period. But a division of "polis" from "akropolis", as it is argued here, is not very convincing.

66 *Gela. L'acropoli*, 359, fig. 20, 379-380, fig. 54, 397-398, figs. 71-72, 405-406, figs. 88-89, pl. II with indication of the Timoleontic structures used as a reference guide to the find-locations of the archaic material.

67 *loc. cit.*, 370-372, figs. 40-45.

68 *loc. cit.*, 369-373, fig. 46.

69 *Gela. Ritrovamenti vari*, 223-229, figs. 5-7.

70 Canzanella (*supra* n. 64) 17.

71 P. Orlandini, "Le nuove antefisse sileniche di Gela e il loro contributo alla coroplastica siceliota," *ArchCl* 6 (1954) 251-266; *Gela. Ritrovamenti vari*, 228-236.

72 *loc. cit.*, 229, pianta n. 5; *Gela. Nuovi scavi*, 87, ad 3, 92, fig. 2.

73 *Gela. Ritrovamenti vari*, 229.

74 *Gela. Nuovi scavi*, 103-107.

75 *loc. cit.*, 97-103.

76 *Gela. Ritrovamenti vari*, 236, plan I.n.?

- 77 *Gela. Nuovi scavi*, 112.
- 78 *Gela. Ritrovamenti vari*, 264-272; *Gela. Nuovi scavi*, 116.
- 79 Orlandini (*supra* n. 31) 31-33, 44-46.
- 80 *Gela. Ritrovamenti vari*, 272, fig. 11a.b.
- 81 *Gela. Nuovi scavi*, 79-82, figs. 3-5; 86, fig. 10.
- 82 B.A. Barletta, "An Ionic Porch at Gela," *RM* 92 (1985) 9-17.
- 83 P. Orlandini, "Nuovi acroteri fittili a forma di cavallo e cavaliere dall'acropoli di Gela," in *Scritti in onore di Guido Libertini* (Firenze 1958) fig. 79; *Gela. L'acropoli*, 400-403 figs. 47-48.
- 84 Orlandini (*supra* n. 83); *Gela. L'acropoli*, 400-403. For a comparison with the related acroterial group from Lokroi see P.E. Arias, "L'Arte locrese nelle sue principali manifestazioni artigianali," *AttiTaranto* 16 (1977) 502.
- 85 *Gela. Ritrovamenti vari*, 242-252; Orlandini (*supra* n. 31) 33-34.
- 86 *Gela. L'acropoli*, 384.
- 87 P. Orlandini, "La terza campagna di scavo sull'acropoli di Gela," *Kokalos* 7 (1961) 141-144, figs. 8-12.
- 88 Orlandini (*supra* n. 31) 31. The evidence of Akragas (J.A. De Waele, *Akragas Graeca. Die Historische Topographie des Griechischen Akragas auf Sizilien* [s-Gravenhagen 1971]) presents a whole range of possibilities which cannot be discussed here.
- 89 Add the sanctuary of Hera, and the extra-urban sanctuary of Demeter (?) at Madonna dell'Alemanna which contained a temple comparable in size to temple "B" and a number of smaller shrines, with architectural terracottas dated to the 7th century B.C.: *Gela. Ritrovamenti vari*, 382-392; Orlandini (*supra* n. 31) 42-43.
- 90 I owe this suggestion to Erik Østby. Also R. Martin has suggested that there are topographical similarities between the sanctuaries of the two sites: "L'espace dans les cités grecques," in *Architecture et société de l'archaïsme grec à la fin de la république romaine. Coll'ÉcolFrRome* 66 (Paris-Rome 1983) 15.
- 91 As outlined in O. Belvedere, "I santuari urbani sicelioti: preliminari per un'analisi strutturale," *ArchCl* 33 (1981) 124-125, 133.
- 92 J. Schubring, "Historisch-geographische Studien über Altsicilien. Gela. Phintias. Die südlichen Sikeler," *RhM* 28 (1873) 93; followed by E.A. Freeman, *The History of Sicily from the Earliest Times* (Oxford 1891) I, 404. K. Ziegler, "Gela," *RE* 7 (1912) 955 though dismissing Capo Soprano has no alternative suggestion for the location of *Lindioi*.
- 93 Orsi (*supra* n. 43) 14; C. Blinkenberg, *La Chronique du Temple Lindien* (Copenhagen 1912) 58-60.
- 94 *Gela. L'acropoli*, 209, fig. 5; E. De Miro & G. Fiorentini, "Gela nell'VIII e VII secolo a.C.," in *Insedimenti*, 91-94 with further refs; above all Fiorentini & De Miro (*supra* n. 53) 100-102, figs. 109, 111. Also the tradition of the cult picture by Daidalos, taken by Antiphemos during his warring against the Sicanians at Omphake (Paus. 8.46.2), can be taken as an echo of Cretan involvement in the foundation of Gela. Further evidence and fuller discussion in D. Asheri, "Note on the resettlement of Gela under Timoleon." *Historia* 19 1970, 622.
- 95 I would also like to call attention to the fact that Gelon, in 485, moved more than half the population of Gela to Syracuse (Hdt. 7.156.2). In about 415 B.C. Gela might not yet have recovered from the loss of over half the population and the habitation area of the late 5th century would be considerably smaller than it had been before 485. The existing town (νῦν ἡ πόλις ἐστὶ) would now be reduced to the old part of it, called *Lindioi*, which happened to be the first walled part of the city, though whether these are the walls currently

dated to the 6th century we cannot know. Again I am indebted to Mogens Herman Hansen for these references.

- 96 L. Pareti, "Per la storia e la topografia di Gela," *RM* 25 (1910) 13-14.
- 97 Bérard (*supra* n. 32) 232.
- 98 Bernabò Brea (*supra* n. 36); Orlandini (*supra* n. 31) 22, 23; *Gela. L'acropoli*, 406-408, esp. 407 n. 2. See also De Miro & Fiorentini, in *Insedimenti*, 90.
- 99 A.J. Graham, *Colony and Mother City in Ancient Greece* (Manchester-New York 1964) 19; Leschhorn (*supra* n. 28) 43.
- 100 H. Wentker, "Die Ktisis von Gela bei Thukydides," *RM* 63 (1956) 129-139.
- 101 J. De Wever & R. van Compernelle, "La valeur des termes de 'colonisation' chez Thucydide," *AntCl* 36 (1967) 477-81, 491; see also K.J. Dover, apud A.W. Gomme et al., *A Historical Commentary on Thucydides IV* (Oxford 1970) *ad loc.*
- 102 M. Casevitz, *Le vocabulaire de la colonisation en grec ancien* (Paris 1985) 157-158.
- 103 For the evidence in a larger context see D. Ridgway, "La 'precolonizzazione'," *AttiTaranto* 28 (1990), 111-125; *idem*, "The First Western Greeks and their Neighbours, 1935-1985," in *GCNP*, 61-72.
- 104 R. Martin, "Thasos colonie de Paros," *ASAtene* 61 (1983) 171-177.
- 105 Canzanella (*supra* n. 64) 16.
- 106 Protocorinthian material found mainly in tomb contexts but also represented in the *temenos* on the eastern plateau shows Greek presence at Gela in the second half of the 8th century B.C.: P. Orlandini, "La più antica ceramica greca de Gela e il problema di Lindioi," *CronCatania* 2 (1963) 50-56; Orlandini & Adamesteanu (*supra* n. 65) 225-226, fig. 16.4; *Gela. L'acropoli*, 406-407; De Miro & Fiorentini, in *Insedimenti*, 94-95; and above all G. Fiorentini & E. De Miro (*supra* n. 53).
- 107 The passage in Thucydides – καὶ πρῶτον ἐτεχνίσθη – concerns the first walled part of the city and does not necessarily imply an early dating of these walls, see *supra* n. 95.
- 108 The walls at Policoro were built in this technique, see *supra* n. 16, as were the impressive remains at Capro Soprano at Gela at a later period.
- 109 P. Pelagatti, "Siracusa. Elementi dell'abitato di Ortigia nell'VIII e nel VII sec. a.C." in *Insedimenti*, 119-133; *idem*, "Siracusa: Le ultime ricerche in Ortigia," *ASAtene* 60 (1984) 117-162.
- 110 *loc. cit.*, 127-128.
- 111 *loc. cit.*, 122.
- 112 Also Lars Karsson, "Europas äldste gata . . .," *Medusa. Svensk Tidsskrift för Antikken*, 13 (1992) 9-12 has presented evidence of the ancient urban measures based upon those of the medieval town.
- 113 Pelagatti, *Insedimenti*, 125.
- 114 Pelagatti (*supra* n. 109 [1982]) 137.
- 115 A. Di Vita, "La penetrazione siracusana nella Sicilia sud-orientale alla luce delle più recenti scoperte archeologiche," *Kokalos* 2 (1956) 177-205.
- 116 *loc. cit.*
- 117 G. Voza, "Akrai," in *Sicilia antica* I,3 497-507; G. Voza & M.T. Lanza, "Acre," *EAA* suppl. I (1994) 38-39; P. Danner, "Akrai. 1," in *Lexicon of Greek and Roman Cities*, 3, 426-430.
- 118 A. Di Vita, "Un contributo all'urbanistica greca di Sicilia: Casmene," *Atti 7 CongrIntArchClass* (1958) (Roma 1961) 2, 69-77; Moeschini (*supra* n. 27). For a settlement which was both a *polis* and a *phrourion* see Thucydides' mention of Sestos at 8.62.3.
- 119 F. Castagnoli, *Ippodamo di Mileto e l'urbanistica a pianta ortogonale* (Roma 1956).



- 120** Di Vita, (*supra* n. 118) 75-77. A. Wasowicz has in a recent article most usefully sketched out what she sees as the main stages of the development of the western Greek cities. She places the concept of *per strigas* in her third phase, that is the phase of the developed 6th century urban-plans (Wasowicz [*supra* n. 10] 18). But I follow Di Vita in stressing the early occurrence of this "Hippodamian" concept.
- 121** P. Pelagatti, "Bilancio degli scavi di Naxos per l'VIII e il VII sec. a.C.," *ASAtene* 59 (1981) 291-311.
- 122** Belvedere (*supra* n. 11).
- 123** For a possible 7th century date of the first phase peribolos wall, constructed as a wall of protection against the river and the sea, see P. Pelagatti, "Naxos. Relazione preliminare delle campagne di scavo 1961-1964," *BdA* 49 (1964) 154-155.
- 124** For the sources, F. Cordano in P. Pelagatti et al., "NAXOS. Gli scavi extraurbani oltre il Santa Venera (1973-75)," *NSc* (1984-85) 305-316. See also Pelagatti (*supra* n. 121) 302, for an exposition of the evidence.
- 125** Strabo, who has Himera founded by Zankleans from Mylai (6.2.6) may have got Mylai mixed up with the Mylitidai. See T.J. Dunbabin, *The Western Greeks* (Oxford, 1948) 56 n. 5; G. Vallet, *Rhégion et Zancle. Histoire, commerce et civilisation des cités chalcidiennes du détroit de Messine* (Paris 1958) 81-86; O. Belvedere, *BTCGI* 8 (1990) 248-249.
- 126** O. Belvedere, "Nuovi aspetti del problema di Himera arcaica," in *Insedimenti*, 75-89 – see here also for the problems inherent in the discrepancy between the traditional foundation date and the archaeological evidence which seems to suggest a foundation date of ca. 625 B.C.; N. Bonacasa, "Il problema archeologico di Himera," *ASAtene* 59 (1981) 319-340.
- 127** Bonacasa, in *Himera* II, 5-14 for a general description of the site.
- 128** N. Allegro, "Himera 1984-1988. Ricerche dell' Istituto de Archeologia nell' area della città," *Kokalos*, 34-35 (1988-1989) 651-653, 656; N. Allegro & S. Vasallo, "Himera – Nuove ricerche nella città bassa (1989-92)," *Kokalos* 38 (1992) 79-80, 137-43.
- 129** Belvedere, in *Himera* II, 257-258, 578-580; *idem*, in *Insedimenti*, 85-87.
- 130** Carra, in *Himera* II, 32, pl. V.2, rooms 47-48.
- 131** Bonacasa, in *Himera* I, 71; E. Joly, in *Himera* I, 258-259, 270.
- 132** Bonacasa, in *Himera* II, 10, 19; Allegro & Vassallo (*supra* n. 128) 141, however, situates the agora in the lower city.
- 133** R.N. Bonacasa Carra & E. Joly, in *Himera* II, 91, 103, 22-126.
- 134** A. Tullio, in *Himera* II, 376, 380, 391.
- 135** A. Tullio (*supra* n. 134) 379-380, 382-385, 398, 402. The investigation of *insula* XII was undertaken more recently. The preliminary reports mention few remains of archaic structures, but no plan is given and the evidence is more sporadic than that of the other *insulae*: N. Bonacasa, "Himera," *Kokalos* 16-17 (1980-1981) 855.
- 136** Allegro, in *Himera* II, 474, 501-502.
- 137** Allegro (*supra* n. 136) 477, 488-490. The divinities: possible evidence of Athena and Demeter.
- 138** Allegro & Vassallo (*supra* n. 128) 140, 145 n. 66. The inclusion of this plateau and the lower city in the habitation area of the archaic city, previously thought to comprise just the plateau of Himera, radically alters the basis for the calculation of the size of the population of the colony, see Allegro *op. cit.* 147-8.
- 139** Allegro (*supra* n. 128) 656-7.
- 140** R. Camerata-Scovazzo et al., "Himera. Scavo nella città bassa," *Kokalos* 30-31

(1984-1985) 629-639; *idem*, "Himera: Città bassa, scavi 1984-1987," *Kokalos* 34-35 (1988-1989) 697-709, pl. 121.

**141** Allegro, (*supra* n. 128) 643. Though this phase of the lower city is dated here, and by Camarata-Scovazzo, et al. (*supra* n. 140) 631, to mid 6th century, an even earlier date is not excluded by Allegro *loc. cit.* 657-658.

**142** Allegro & Vassallo (*supra* n. 128) 141-2.

**143** Cf. D. Adamesteanu, "Le fortificazioni ad aggere nella Sicilia centro-meridionale," *RendLinc* Ser. 8 11 (1956) 358-372; R.M. Bonacasa Carra, "Le fortificazioni ad aggere della Sicilia," *Kokalos* 20 (1974) 92-118.

**144** R.M. Bonacasa Carra (*supra* n. 143) 110-111 with ref.; N. Bonacasa, "Himera," *Kokalos* 26-27 (1980-1981) 855, pl. 117, fig. 2.

**145** Di Vita (*supra* n. 115) 196-201; A. J. Graham, (*supra* n. 99) 92-94; A. Di Vita, "Tucidide VI 5 e l'epicrazia siracusana. Acre, Casmene, Camarina," *Kokalos* 33 (1987) 121-127.

**146** The possibility of a Corinthian contingent is supported by the onomastica – Menekolos is a Corinthian name; also the oikists of secondary colonies were at times chosen from the original mother-city. There is also the evidence of Diopos, the coroplast's name on a tile from the site, probably a Corinthian. For full discussion see F. Cordano, "Camarina VII. Alcuni documenti iscritti importanti per la storia della città," *BdA* 69 (1984) 32-34; *idem*, "Contributo onomastico alla storia di Camarina arcaica," *Kokalos* 33 (1987) 121-127.

**147** For the sources: F. Cordano, "Camarina," *BTCGI* IV (1985) 286-289; and discussion: J. Bérard, (*supra* n. 32) 133-138.

**148** Political not physical destruction: B. Pace, *Camarina. Topografia. Storia. Archeologia* (Catania 1927) 36-37 – "I Siracusani forse annientarono la sua personalità politica di πόλις, senza ricorrere a una compiuta distruzione materiale." Parmenides: Moretti, "Olympionikai", *MemLinc* 8.8 (1957) no. 125. Well: M.C. Lentini, "Camarina VI. Un pozzo tardo-arcaico nel quartiere sud-orientale," *BdA* 68 (1983) 5-30, esp. 5-6. The archaic necropolis of Rifriscolaro shows continuity of use (P. Pelagatti, "Camarina," *StEtr* 46 (1978) 571-574), and the Corinthian contacts, as evidenced by the high percentage of Corinthian amphoras and Corinthian onomastica, confirms the continuity of settlement during the 6th century B.C., cf. P. Pelagatti, "Ricerche nel quartiere orientale di Naxos e nell'agora di Camarina," *Kokalos* 30-31 (1984-1985) 693-694.

**149** Thuc. 6.5.3.; Herod. 7.154; Philistos (*FrGrHist* 556) frag. 15 = Schol.Pind. *Ol.* 5.19c. See Cordano (*supra* n. 147) 287 for the sources; Pace (*supra* n. 148) 38; Dunbabin (*supra* n. 125) 402-404, 407-409, for discussion of the sources.

**150** M. Casevitz (*supra* n. 102) 168, 172-173.

**151** Thuc. *loc. cit.*; Herod. 7.156; Pace (*supra* n. 148) 39; Dunbabin (*supra* n. 125) 416; N.H. Demand, *Urban Relocation in Archaic and Classical Greece. Flight and Consolidation* (Bristol 1990) 47-48.

**152** Thuc. *loc. cit.*; Diod. 11.76.5; Timaios (*FrGrHist* 566) frag. 19a = Schol. Pind. *Ol.* 5.19a. Cordano (*supra* n. 147) 287 for the sources. Pace (*supra* n. 148) 41-42.

**153** For the archaeological evidence of "de-population" 485-462, and the "re-population" after 462, see F. Giudice, "La seconda e terza fondazione di Camarina alla luce dei prodotti del commercio coloniale," *QuadMessina* 3 (1988) 49-57, esp. 56-57, with references.

**154** U. Westermark & G.K. Jenkins, *The Coinage of Kamarina* (London 1980): period I c. 492-485 B.C., period II c. 461-440/435 B.C.

- 155** P. Pelagatti, "Le fasi edilizie dell'abitato greco," *BdA* 61 (1976) 122-125. For the early 6th century predecessor of *stenopos* 6 leading to the harbour: P. Pelagatti, "Ricerche nel quartiere orientale di Naxos e nell'agora di Camarina," *Kokalos* 30-31 (1984-1985) 693.
- 156** P. Pelagatti, "Camarina. Relazione preliminare della campagna di scavi 1961-62," *BdA* 46 (1962) 257-258; *idem*, "Camarina," *Kokalos* 26-27 (1980-1981) 715, pl. 102 "T"; G. Di Stefano, "Ricerche a Camarina. Tempio e temenos di Athene poliade," *Kokalos* 30-31 (1984-1985) 733-735.
- 157** P. Pelagatti, "Sul parco archeologico di Camarina. Le fasi edilizie dell'abitato," *BdA* 61 (1976) 124, "isolati B/C 29-30".
- 158** P. Pelagatti (*supra* n. 156 [1980-1981]) 717; M.C. Lentini, "Camarina VI. Un pozzo tardo-arcaico nel quartiere sud-orientale," *BdA* 68 (1983) 5-30.
- 159** P. Pelagatti (*supra* n. 155 [1976]) 124.
- 160** P. Pelagatti (*supra* n. 156 [1980-81]) 714-715.
- 161** P. Pelagatti (*supra* n. 156 [1980-81]) 713-714; *idem*, "Ricerche nel quartiere orientale di Naxos e nell'agora di Camarina," *Kokalos* 30-31 (1984-1985) 683-694, esp. 693.
- 162** P. Pelagatti, "Camarina," *BTCGI*; G. Di Stefano, "Camarina 1990. Nuove ricerche e recenti scoperte nella baia e nell'avamposto," *Atti V Rassegna di archeologia subacquea*, Giardini Naxos 19-21 ottobre 1990 (Messina 1992) 175-180.
- 163** See above all now A. Di Vita, G. Di Stefano & G. D'Andrea, *Camarina, Museo archeologico* (Palermo 1995).
- 164** G. Vallet, F. Villard & P. Auberson, *Mégara Hyblaia I. Le quartier de l'agora archaïque* (Rome-Paris 1976).
- 165** J. Svenbro, "À Megara Hyblaea: le corps géométrique," *AnnalesESC* 37 (1982) 953-964; G. Vallet, F. Villard & P. Auberson (*supra* n. 27) 145-146.
- 166** M. Gras, "Ricerche sul pianoro meridionale dell'abitato di Megara Hyblaea," *Kokalos* 30-31 (1984-1985) 801-804, calculates that the colony inside the archaic circuit wall covered an area of about 600,000 sq.m.
- 167** For a general description of the site: A. Di Vita "Selinunte fra il 650 ed il 409: un modello urbanistico coloniale," *ASAtene* 62 (1984) 7-10; for a survey of the recent urbanistic investigations, *idem*, "Contributo per una storia urbanistica di Selinunte," in *Miscelanea di studi classici in onore di Eugenio Manni* 3 (1980) 803-829.
- 168** Sources in Bérard (*supra* n. 32) 244-246.
- 169** See now V. Tusa, "Ricerche e scavi nelle necropoli selinuntine," *ASAtene* 60 (1982) 191-194, with a useful view of the contemporaneous Carthagian expansion in the western Mediterranean, supporting the mid 7th century date for the Greek expansion in western Sicily.
- 170** K.J. Dover (*supra* n. 101) 216-217; M. Casevitz (*supra* n. 102) 105, 109 n. 27.
- 171** R. Martin, "Histoire de Sélinonte d'après les fouilles récentes," *CRAI* (1977) 51, fig. 2.
- 172** M.H. Fourmont, "Sélinonte: fouille dans la region nord-ouest de la rue F," *SicArch* 46-47 (1981) 7-9; *idem*, "Sélinonte: 1980-1984," *Kokalos* 30-31 (1984-1985) 559. These recent investigations support a mid 7th century date for the earliest structural remains. Traces of a hearth indicate habitation.
- 173** A. Rallo, "Scavi e ricerche nella città antica di Selinunte. Relazione preliminare," *Kokalos* 22-23 (1976-1977) 720-733; *idem*, "Nuovi aspetti dell'urbanistica selinuntina," *ASAtene* 62 (1984) 81-91.
- 174** A. Rallo, "Selinunte: le ceramiche del VII sec. a. C. della necropoli meridionale di



Manuzza dopo gli scavi 1978," *ASAtene* 60 (1982) 203-218. The location of the earliest (?) necropolis between the two main areas of habitation (northwards on the Manuzza plain, southwards on the akropolis), and the public space limiting the necropolis on its west side, form an early, overall unity of the settlement.

**175** G. Gullini, "Il tempio E1 e l'architettura protoarcaica di Selinunte," in *Insediamenti*, 52-61, 72-74. Sceptical of the postulated early chronology of temple "E1": M. Torelli, in *op.cit.*, 69-70 and R.J.A. Wilson, "Archaeology in Sicily, 1982-87," *AR for 1987-88*, 146. See I. Romeo (*supra* n. 38) 43, no. 68, n. 110, for the revised chronology – a 6th century date for temple "E1" and a late 7th century date for its predecessor; now acknowledged by G. Gullini, "Vent'anni di ricerche sulla collina orientale di Selinunte," in *Studi sulla Sicilia occidentale in onore di V. Tusa* (Padova 1993) 73-84.

**176** Romeo (*supra* n. 38) 40 no. 64.

**177** E. Østby, "Chronological Problems of Archaic Selinus," *ActaHyp* 6 (1995) 87, fig. 2; also Romeo, (*supra* n. 38) 39, no. 62 "Megaron a sud del tempio C".

**178** Romeo (*supra* n. 38) 40, no. 63 "Tempietto con acroteri a spirale" from the end of the 7th century B.C.

**179** Di Vita (*supra* n. 167 [1984]) 11; Parisi Presece (*supra* n. 27) 114-117.

**180** Discussion in V. Tusa, "Ricerche e scavi nelle necropoli selinuntine," *ASAtene* 60 (1982) 194-196. A related theory is that of Di Vita who suggests an original early settlement on the southern part of the akropolis (*supra* n. 167 [1980]) 817, 823, 827.

**181** Martin, *CRAI* 1977, 51, 54-55; J. de La Genière & D. Theodorescu, "Ricerche topografiche nell'area di Selinunte," *RendLinc* 34 (1979) 385-395; J. de La Genière, "Nuove ricerche sulla topografia di Selinunte," *RendLinc* 36 (1981) 211-217; *idem*, "Selinonte (1975/1981)," *AnnPisa* 12 (1982) 469-479; J. de La Genière & J. Rougetet, "Recherches sur la topographie de Selinonte. Campagne 1985," *RendLinc* 40 (1985) 289-297; D. Mertens, "Die Mauern von Selinunt," *RM* 96 (1989) 104, fig. 4.

**182** A. Peschlow-Bindokat, *Die Steinbrücke von Selinunt. Die Cave di Cusa und die Cave di Barone* (Mainz a. R. 1990) 12. Peschlow-Bindokat suggests that the Cave di Cusa were in use already in the second quarter of the 6th century as the stones from here were used in the construction of the Temple C. The temple, however, may have to be dated to the second half of the century as shown by E. Østby (*supra* n. 177). There may be other evidence pointing to an early date, and the stone quarries fit into the overall early 6th century urban situation of Selinus. Cf. here also Di Vita, (*supra* n. 167 [1980]) 812-813: the overall urban development of Selinus in the period 580-570 may encompass partly the *temenos* of this period with its predecessor of temple C, and the strengthening of the road system of the akropolis (investigated by J. de La Genière, etc). An early use of Cave di Cusa fits into this period very well).

**183** The remains of the road system found in the Modione valley go back to the late 7th or early 6th century B.C. – de La Genière, (*supra* n. 181 [1982]) 476.

**184** D. Mertens, "Le fortificazioni di Selinunte. Rapporto preliminare (fino al 1988)," *Kokalos* 34-35 (1988-1989) 589-590, mentions traces of a road system and terracing of the eastern slopes of the Manuzza plateau. Himera presents another example of an urban coherence disregarding geomorphological restrictions.

**185** Rallo (*supra* n. 173 [1976-1977]) 725; *idem* (*supra* n. 173 [1984]) 90-91.

**186** Rallo (*supra* n. 173 [1976-1977]) 731-732; *idem* (*supra* n. 173 [1984]) 89, 91.

**187** Rallo (*supra* n. 173 [1976-1977]) 731, with reference to the only known Corinthian inscription from Selinus: M.T. Manni Piraino, *Iscrizioni greche lapidarie del museo di Palermo* (Palermo 1973) no. 74 (late 7th cent. B.C.), with discussion of Corinthian influence,

but taken by Rallo to suggest rather Corinthian presence. Cf. in this connection the Corinthian aspect of the Buffa necropolis, in contrast to the Manuzza necropolis with material primarily of Megara Hyblaia character: V. Tusa, "Ricerche e scavi nelle necropoli selinuntine," *ASAtene* 60 (1982) 189-202; Rallo (*supra* n. 174).

**188** Rallo (*supra* n. 173 [1984]) 91. See also Di Vita (*supra* n. 164 [1980]) 823-824; de La Genière & Rougetet (*supra* n. 181) 295-296, fig. 1. In fact also suggested by the plan by G. Schmiedt based upon aerial photography: Di Vita, *loc. cit.* fig. 3. It is interesting that already Julius Schubring in his general plan of the site from 1865 ("Die Topographie der Stadt Selinus," *NachKöniglGesellWissGöttingen* 15 [1865] 408-409) suggested an agora near this location.

**189** *Supra* n. 181.

**190** Di Vita (*supra* n. 167 [1980]) 810-818.

**191** Gullini (*supra* n. 175).

**192** Malophoros Megaron: Romeo, (*supra* n. 38) 40-42, no. 65; "Temple M": C. Maseria, "Ipotesi sul 'Tempio M' di Selinunte," *AnnPerugia* 16 (1978-1979) 61-88; "Edificio Triolo Nord": Romeo, *loc. cit.* 43, no. 67.

**193** A. Di Vita, "Le fortificazioni di Selinunte classica," *ASAtene* 62 (1984) 70-79. V. Tusa ("Selinunte: la cinta muraria dell'acropoli," in *Fortification du monde grec*, 113) suggests that the *temenos* of the akropolis, apart from its role as a sanctuary, functioned as a fortified stronghold (in the terminology of E. Gàbrici – ἀκρόπολις καὶ πύργος), possibly from as early as the 7th century B.C. However, the interpretation is rejected by Di Vita; the walls of the *temenos* are peribolos walls, not fortification walls. For the northern akropolis wall, the "Sperrmauer": D. Mertens (*supra* n. 181) 151.

**194** The Modione circuit wall is, so far, known only from early surveys and the map by C. and S. Cavallari, *apud* J. Schrubring, "Die neuen Entdeckungen von Selinunt," *Arch-Zeit* 30 (1873) 97-103, pl. 71 [reproduced by Di Vita, (*supra* n. 193) fig. 1; Parisi Presicce, (*supra* n. 27, fig. 24) no. 30 "Quaimauer" though more likely part of a circuit wall delimiting the city on its western side, see Di Vita, *loc. cit.* 72-74.

**195** D. Mertens, (*supra* n. 181) 132-133, 138-139; the remains of the circuit on the Manuzza plain are dated after the middle of the 5th century, *loc. cit.* 141.

**196** See for instance A.M. Snodgrass, *Archaic Greece. The Age of Experiment* (London 1980) 32-33.

**197** A.M. Snodgrass, "Archaeology and the study of the Greek city," in J. Rich & A. Wallace-Hadrill (eds.), *City and Country in the Ancient World* (London 1991) 7-10. The evidence is early and concerns mainly the nucleated settlements in the Cyclades. However, the evidence from Crete could be of some importance: see K. Nowicki, "Fortifications in Dark Age Krete," in Fossey, J.M. (ed.), *Fortificationes Antiquae* (Amsterdam 1993) 53-75. See also the conclusions by P. Ducrey, "La muraille est-elle un élément constitutif d'une cité?," in M.H. Hansen (ed.), *Sources for The Ancient Greek City-State*. Acts of the Copenhagen Polis Centre 2. Det Kongelige Danske Videnskabernes Selskab, Historisk-filosofiske meddelelser (Copenhagen 1995) 245-56.

**198** As suggested by Parisi Presicce (*supra* n. 27) 118.

**199** Asheri (*supra* n. 4) 11.

**200** G.P.R. Métraux, *Land-use and City-planning in the Archaic Period* (New York-London 1978) 1-3, *passim*; I. Malkin, *Religion and Colonization in Ancient Greece* (Leiden 1987) 138-141, mainly concerned with the establishment of *temene*.

**201** Snodgrass (*supra* n. 196, 197).

**202** A. Snodgrass, "The Rise of the *Polis*. The Archaeological Evidence," in M.H. Han-

sen (ed.), *The Ancient Greek City-State*. Acts of the Copenhagen Polis Centre 1 . Det Kongelige Danske Videnskabernes Selskab, Historisk-filosofiske Meddelelser 67 (Copenhagen 1993) 30-31.