

# Inside the City in the Greek World

Studies of Urbanism from the Bronze Age  
to the Hellenistic Period

*Edited by*

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## 9 The Urban Plan of Thourioi: Literary Sources and Archaeological Evidence for a Hippodamian City

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### *Hippodamus of Miletus*

Archaeological literature on the history of Greek urbanism often uses the term ‘Hippodamian’ with reference to the founding of cities or the planning of new neighbourhoods from the Classical age onward. This usage ultimately goes back to the well-known passage in the *Politics* (1330b 21) where Aristotle speaks of a “new and Hippodamian way” of arranging houses which, he claims, contrasts with the previous (Archaic) one. In another famous passage in the *Politics* (1267b 22), Aristotle summarizes the *Peri Politeias* by Hippodamus, son of Euriphon. All that one gathers from this summary, however, is that Hippodamus planned Piraeus, and Aristotle appears mainly concerned with demolishing the thinker Hippodamus’ *Politeia* from the social and constitutional point of view. In my opinion, that is why contemporary scholars use the term ‘Hippodamian’ vaguely and improperly. We are unable to define Hippodamus’ urban planning theory precisely, unless we are satisfied with the often-repeated commonplace that the Milesian invented the orthogonal town-plan, but this was in fact used in Western Greek colonies over a century and a half before Hippodamus was born!

This issue has been connected with a chronological problem – whose commonly accepted explanation is actually a hard-dying modern fabrication – which has been present ever since German scholars attributed to Hippodamus (on no evidence whatsoever) the planning of the new Miletus, rebuilt around 470 BC by refugees returned after the city’s destruction by the Persians in 494 BC (Herodotus 6,18–20). If this were true, Hippodamus could not have been born later than 500 BC; but then we would have to dismiss as false Strabo’s (XIV,2,9) mention of his planning of Rhodes in 408 BC.

Thus, Hippodamus is alleged to have planned Miletus (although this is *not* mentioned in any source) but not Rhodes (although this *is* recorded in the literary sources). In my opinion, we should adhere to the evidence and conclude, instead, that the Milesian’s *akme* occurred in the second half of the fifth century BC and that Piraeus (as archaeological data also appear to bear out) was planned around the middle of the fifth century BC, in the time of Pericles. The latter was also the sponsor of the Panhellenic colony of Thourioi (444 BC), in whose foundation Hippodamus of Miletus was allegedly involved (although the sources on this are late and not completely reliable), along with Protagoras of Abdera, Herodotus of Halicarnassus, and others.

*Diodorus Siculus and the foundation of Thourioi*

As is well-known, the Sicilian historian Diodorus Siculus' account (XII,10,6–7) of the intricate story of the foundation of the Panhellenic colony of Thourioi, at the site of Sybaris, includes one of the most admirable descriptions of a city plan ever to come down to us. Very probably, Diodorus' source here is Ephorus of Cumae, who must also have given a physical description of the city – a very rare instance in foundation narratives – since Pericles had intended Thourioi to be paradigmatic from the urban as well as the social and political point of view. This would appear to provide indirect confirmation that Hippodamus himself planned the city, or 'divided' it, to use Aristotle's expression.

Diodorus narrates that the colonists recognised the *Thouria* spring as the spot indicated by their oracle for the foundation, where there was "water to drink in due measure, but bread to eat without measure". They surrounded the area with a wall and divided it lengthwise with four *plateiai* and breadthwise with three, then further subdivided the areas between these streets with *stenopoi*, so that the city appeared "well laid out". The new foundation was called "Thourioi" after the name of the spring (in my opinion a clear sign of a break with the former Sybarite inhabitants of the area).

There is one detail in Diodorus' account that is quite unprecedented in a foundation story: the historian, besides describing the layout of the seven *plateiai*, also reports their names. The four lengthwise *plateiai* were called *Herakleia*, *Aphrodisias*, *Olympias* and *Dionysias*, the three breadthwise ones, *Heroa*, *Thouria* and *Thurina*. We will return to re-examine this source further in the light of archaeological discoveries.

*Archaeological evidence: Sybaris, Thourioi and Copiae*

From 1969 to 1974 – long after U. Zanotti Bianco first identified the site of Sybaris in 1932, when he brought to light the remains of the theatre of Copiae, the Latin colony founded in 194 BC at Thourioi – the Archaeological Superintendency of Calabria conducted several extensive excavation campaigns which uncovered over five hectares of the ancient city. These campaigns provided elements for a first study of the urban topography of this huge palimpsest dating from the eighth century BC to the seventh or eighth century AD (Sibari II–V).

In the passage examined above, it is noteworthy that Diodorus says that Thourioi was founded "not far" from Sybaris. This puts in very vague terms the issue of the relationship between the old Achaean city, destroyed by the Crotoniates in 510 BC, and the new foundation of 444 BC which in fact partially overlies it. The evidence from the 1969–74 excavations, however, does allow some observations to be made, although the investigated portion of Sybaris is so small compared with the huge later extent of Thourioi, that these can be little more than impressions (Fig. 9.1).

The northernmost of the excavated neighbourhoods (Stombi) yielded evidence pertaining to seventh and sixth century houses, with no later structures above them, except for a farm of the Hellenistic period. The fact that a rural settlement belonging to Thourioi overlay

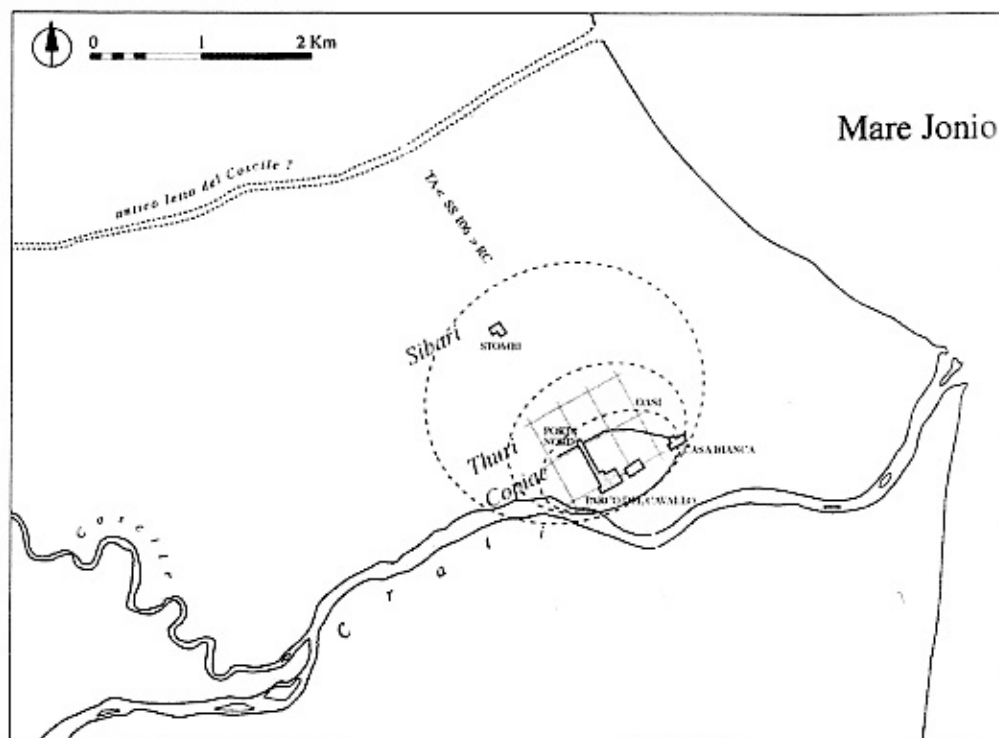


Figure 9.1 Plan of the site, with estimated areas of Sybaris, Thourioi and Copiae.

what had been an urban neighbourhood of Sybaris indicates that there was a considerable difference in the extents of the two cities, but at present we cannot say much more than that. The archaeological record tells a different story in the southernmost excavated areas, Porta Nord, Parco del Cavallo, and Prolungamento Strada, where it was possible to ascertain the stratigraphic superimposition of Sybaris, Thourioi and Copiae (Figs 9.2 and 9.3). Here, several in-depth soundings revealed a layer of yellowish alluvial silts, about 40–50cm deep, containing abundant late Archaic pottery. This has been rightly interpreted as the stratum accumulated from 510 to 444 BC, a period when the site was apparently uninhabited (Greco, Luppino *et al.* 1999).

Further significant, although still partial, evidence was provided by the very recent excavation of the Porta Nord, the northern gate of the walls of the Roman city – which was much smaller than the Greek one. Stratigraphic soundings revealed a sequence of beaten earth streets datable from the second half of the fifth century to Roman imperial times. Further down, under the silts sealing the strata of the Archaic period, is a *plateia* flanked by houses with at least two floor levels, datable within the second half of the sixth century BC. This *plateia* has the same orientation as the later street of the Classical period. Thus, at least in this area, we made the surprising discovery that Hippodamus' plan incorporated

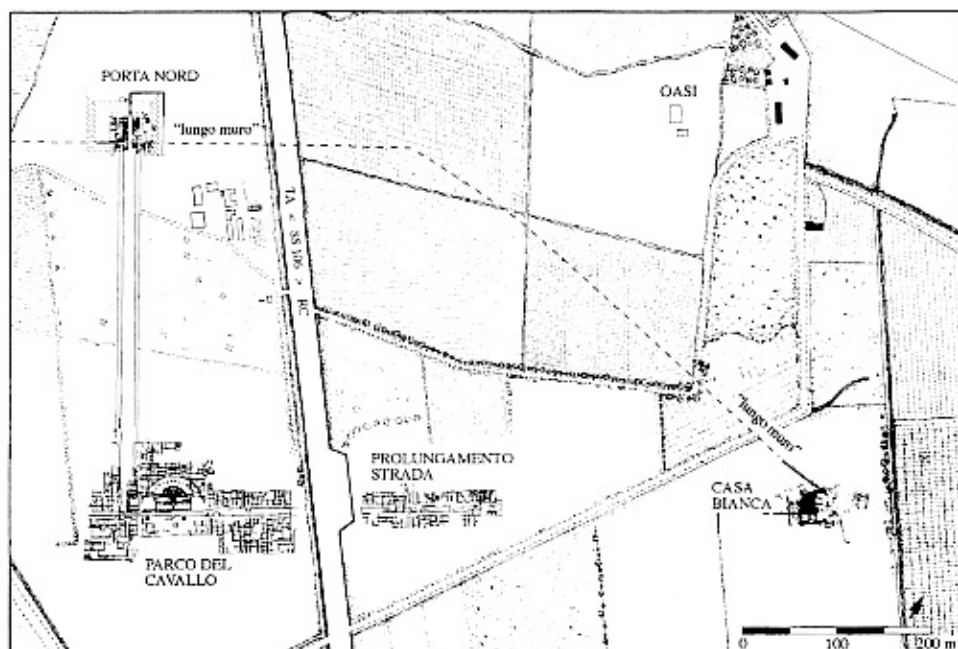


Figure 9.2 Plan of excavations at Porta Nord, Parco del Cavallo and Prolungamento Strada.

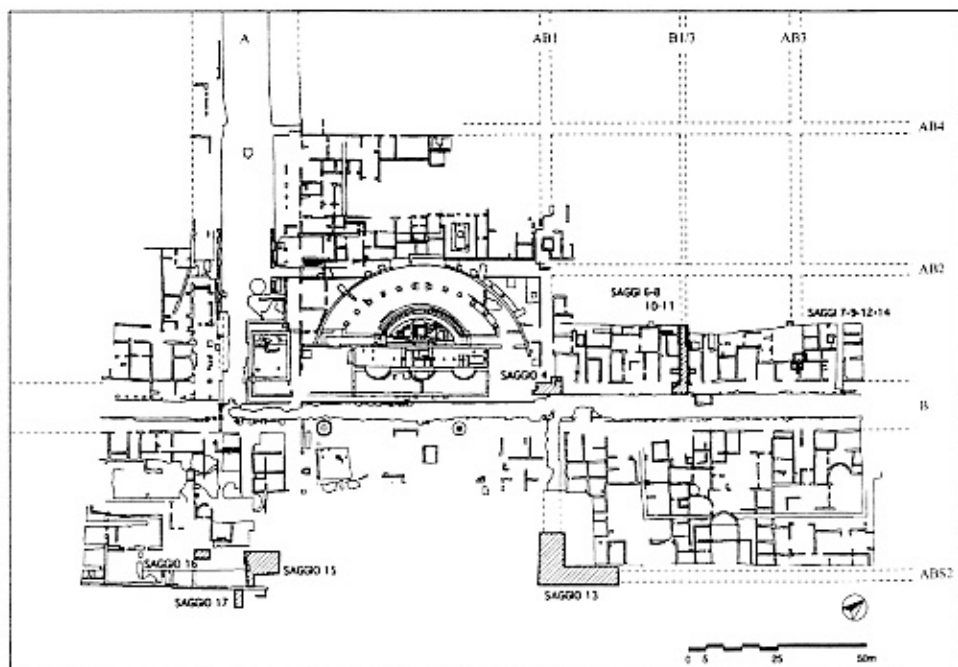


Figure 9.3 Excavations at Parco del Cavallo.

one of the main axes of the earlier city – although the *plateia* of the Classical period is much wider. This datum must so far be regarded as preliminary; the issue will be explored further in future excavation campaigns (Greco *et al.* 1999).

Equally, as early as 1971 and 1973, F. Castagnoli (1971; 1973) used the first results of the excavation to argue that the Roman city of Copiae, to which the great majority of buildings brought to light so far belongs, maintained the urban plan of Thourioi, aside from a few major alterations. In other words, Copiae, the Latin colony, is simply the Thourioi of the Roman period (indeed, the name of Thourioi must have been preferred, even in late antiquity, to the official name of the Latin colony, Copiae).

Aside from some alterations of the original plan carried out after its foundation, we can assume that the layout of the Latin colony essentially coincided with that of Thourioi, on the evidence of numerous soundings carried out over the last few years, which show that the paved streets of the Roman period overlie the beaten-earth *plateiai* and *plateai stenopoi* of the Classical period.

### *Observations on the urban layout*

A large north-south *plateia* (A), 29.50m (100 Roman feet) wide, runs through the Parco del Cavallo and Porta Nord areas (Fig. 9.4). This street intersects an east-west *plateia* (B) (Parco del Cavallo and Prolungamento Strada areas), 14.60m (50 Roman feet) wide, 296m (1000 Roman feet) east of this intersection, in the Prolungamento Strada area, *plateia* B intersects a third north-south *plateia* (C), 12.50m (40 Roman feet) wide. North of here, a few years ago I discovered *plateia* D under the wall of the Roman city. This street runs from east to west, and is hence parallel to B. It was not possible to ascertain its length. This excavation was conducted in the framework of a research program of the Superintendency of Calabria coordinated by the Director of the Sybaris Excavations, Dr. S. Luppino. As part of the same research program, we recently (1998–2000) located a new north-south *plateia* (E, parallel to A and C), 296m east of *plateia* C. Although we were not able to explore it completely, we found and excavated its crossing with *plateia* D, which is certainly over 20m wide. We brought to light a 22m stretch of the street, but were not able to complete its exploration, due to the well-known difficulties of digging at Sybaris, where the presence of underground water requires the use of costly well-points (Greco *et al.* 1999).

In conclusion, so far we have evidence for five of the seven *plateiai* mentioned by Diodorus: in addition we can reconstruct the plan of at least one of the six large squares formed by their intersection (four in one direction, three in the other). The distance between *plateiai* A and C, as we mentioned above, is of 1000 feet, that between B and D of 1300 feet; this was, hence, the size of at least one of the squares. As early as the 1970's, the excavation along *plateia* A revealed *stenopoi* about 3m wide (10 Roman feet), placed at an average distance of 37m apart (though this distance varies slightly), and all perpendicular (east-west) to *plateia* A (north-south) (Greco *et al.* 1999). Our recent soundings (Greco *et al.* 1999) also brought to light north-south *stenopoi* along *plateia* B, which runs from east to west. These lie about 74m from one another. This would seem to indicate that the grid of *stenopoi* divided the



town plan into 74 by 37m rectangles, just as Diodorus says. However, it should be observed that, at least in one case, the long side (74m) of this rectangle is divided into two equal parts (37m) by an *ambitus* with a sewer just slightly over 1.50m wide. Hence, we must envisage the possibility – for the present, only as a working hypothesis requiring further verification – that the 396 by 296m (1300 by 1000 Roman feet) grid was actually divided into 37 by 37m squares. Such a square could accommodate four 18 by 8m houses separated by a 1m thick wall, an arrangement attested in many coeval sites such as Olynthus and Himera, but not so far at Thourioi itself. Further investigations of the layers under the Roman and late ancient houses will be needed to verify this hypothesis.

### Street names

Let us return to the seven large *plateiai* mentioned by Diodorus Siculus, and attempt to identify them with those brought to light so far (Fig. 9.4). I would like to begin with this preliminary observation: I think that, to interpret his text, we need a guide-fossil. As we have seen, the east-west *plateiai* are 1300 Roman feet apart, the north-south ones 1000 Roman feet. Diodorus says that four ran lengthwise and three breadthwise. If we assume that there were four east-west *plateiai* and three north-south ones, we obtain an unlikely long and narrow plan. It seems obvious to me that the higher number (four) refers to the *plateiai* running closer to one another (1000 Roman feet), and the lower number (three) to those placed further apart (1300 Roman feet). The result is a nearly square shape, with four *plateiai* running from north to south, and three from east to west.

This hypothesis finds further support in the street names mentioned by Diodorus. If, following his order, we begin with the *Herakleia*, the first street he mentions, this must necessarily be the easternmost of the north-south streets, because, as is well-known, the *Herakleia* is always a coastal street. For example, the *hodòs Herakleia* mentioned in the *Herakleia* table (which carries a *syntheka* of the land of *Athena Polias*) was the street running parallel to the sea between the city of *Herakleia* and the sea itself. Thus, the *Herakleia* (*hodòs*) of *Thurii* was nothing but the urban stretch of a very ancient road which ran along the Ionian coasts of present-day Lucania and Calabria.

Having identified the *Herakleia* with the easternmost of the north-south *plateiai* (corresponding to our *plateia* E), C must be the *Aphrodis* and A, the widest of all (100 Roman feet), the *Olympias*. As to the *Dionysias*, since east of *plateia* E there was the sea, it can only lie west of A, towards the *chora*, a position well suited to a street called *Dionysias*. Thus, the street nomenclature of *Thurii* placed *Herakles* on the east side, near the sea, and *Dionysos* on the west side, towards the countryside. *Zeus* ruled in the middle, in the large 100-foot-wide street, with *Aphrodite* beside him (between the *Olympias* and the *Herakleia*). In earlier publications, I suggested that these streets could have been named after sanctuaries that they ran by (as the stele in the port of *Thasos* suggests) (Greco 1999). This working hypothesis still needs to be verified through excavations, first and foremost that of a large building with a monumental *propylon* lying east of the *Herakleia*, for which I proposed an identification as a sanctuary of *Herakles*.



It is not as easy, however, to assign the names of each of the three east-west *plateiai* (*Heroa*, *Thuria* and *Thurina*). However, whether we read Diodorus' text from north to south, or from south to north, the *Thuria* is the one that lies in the middle of the system. The name is indubitably derived from the fountain after which the city itself was named, which was presumably transformed into a cult place. *Heroa* could be the street skirting the *agora*, where heroic monuments were usually erected. If this were true, the most likely candidate for it would be *plateia* B, which runs between the theatre and the *thermae*. Our soundings indicate that this was the area of the *forum* of Copiae and, very probably, of at least one *agora* of Thourioi. The *Thurina* (possibly named, as often happens, after the area that the street leads to) could be the *plateia* presumably running north of D, which we have not found yet. It must have led out to the *chora*, the *ager thurinus*.

### Conclusions

At this point, I would like to propose a more general reflection on two issues. First of all, the foregoing considerations bear witness to the new perspectives one can open (far be it from me to claim that my results are definitive) by combining literary, epigraphic and archaeological data – albeit with caution and avoiding circular reasoning. Such an approach can, if nothing else, considerably broaden the perspective of researchers confronted with the problem of how to investigate an ancient town – a huge task, considering the modesty of our strength and means, and our too short life span. As Roland Martin (whom I had the fortune of having as my teacher) often said to me, archaeologists exploring ancient cities should strive to achieve great results through a few well-aimed excavations. Today, undertakings such as the excavation of Olynthus, for example, or the extensive excavations of Selinus, Naxos, Megara Hyblaea, Metapontum or Paestum, or even Sybaris itself, are no longer possible, because of their very high costs and the difficulties involved in the management of the archives of excavations conducted using modern methods. But one thing is certain: if today we can answer certain questions with just a few well-aimed soundings, we owe this to the much criticised extensive excavations of the past. For the future, however, I think we should reconsider our investigation strategies. Today, geophysical prospecting and aerial photography allow us to dispense with having to carry out extensive excavations before we can proceed to specific soundings to explore the stratigraphic history of ancient cities.

Finally, I would like to conclude with a few brief considerations on Hippodamus of Miletus, with whom I started. Again, I am sceptical of the possibility of understanding the essence of Hippodamus' theory on the basis of Aristotle's summary. Furthermore, scientific rigour demands that we use only those towns which tradition attributes to Hippodamus – *i.e.* Piraeus and Thourioi, certainly, and Rhodes, possibly (in my opinion, very probably) – as testimonies of his urban planning principles. To speak of Hippodamian town planning, influences, imitations, loans, and derivations in other contexts is, in my opinion, highly imprudent. Thourioi is especially important in this respect, considering the scarcity of evidence from Piraeus and Rhodes, which lie under the respective modern towns. The site was abandoned from late antiquity (seventh-eighth century AD) to the second half of the

twentieth century. At the end of the 1960's, the Italian state managed to thwart plans to turn it into an industrial area, assuming ownership of about 130 hectares and imposing a ban on construction over about 500 hectares. Thus, the Sybaris plain holds the promise of becoming an ideal field of research on urban history for future generations. The site is also the only town planned by Hippodamus whose investigation does not require the (impossible) demolition of modern buildings.

As to what the excavation has revealed so far, some considerations, although preliminary, are due on the city's urban plan – which incorporates new and unprecedented principles of regularity and symmetry, applied, as far as we can see, with maniacal precision – and the appearance of the grid plan, possibly for the first time in the history of Greek towns. One should keep distinct, however, Hippodamus the theorist from Hippodamus the builder of Thourioi. The city's plan cannot have been the creation of a single architect; rather, it resulted from his interaction with the community which commissioned the job to him.

It seems clear to me that Hippodamus' *Politeia* must have included a chapter on his town-planning theory; indeed, he was possibly the first architect to propose such theories. This gave rise to the adjective 'Hippodamian', which is, however, more popular with modern than with ancient writers. However, even if we had the complete version of the text, this would not authorise us to see the plans of actual towns as mere applications of his theories: in laying out a city, architects must inevitably take account of the needs and demands of the future inhabitants. Methods for the rational allocation of space and the meeting of hygienic and aesthetic requirements must have developed and spread over time, eventually giving rise to the typically Greek town plan (by its plan alone, Strabo (III,4,2) could characterise a town as Greek rather than Phoenician). But this is a far cry from attempting to posit a connection between urban plans and political regimes, although some enterprising modern theorists see the grid-plan as a 'reflection of democratic egalitarianism'. As the regretted David Asheri (1975) said (*contra* Hoepfner and Schwandner 1994), 'Hippodamian' systems work with all political regimes. An example will help to justify this rather peremptory statement.

Modern scholars have always refused to attribute the planning of Rhodes to Hippodamus on the grounds that the 'democratic' Hippodamus, who worked for democratic Athens at Piraeus and Thourioi, could not possibly have stooped to collaborating with the Spartans at Rhodes. Incredible as it may seem, this view ultimately goes back to a typically American school of thought of the 1930's which (*ex gr.* Mumford) identified the Athenians with the USA and the Spartans with the Nazis. To shed light on this matter, we should readmit as evidence the fragments by a Hippodamus in Stobaeus' *Anthology*, which German philology has dismissed as apocryphal (they are not included in Diels and Kranz's classical collection of the fragments of the Presocratic philosophers (Diels and Kranz 1951–52)). Their author, who can hardly be pigeonholed as an exponent of 'democratic' thinking, at a first reading does not seem so far removed from our Hippodamus.

There are five of these fragments, all in Stobaeus' fourth book. Four are from the *Peri Politeias* by Hippodamus Pythagoricus (Stob. 4.1.93–5, pp. 28–36 Hense; 4.34.71, p. 846 Hense), another from the *Peri Eudaimonias* by Hippodamus of Thourioi (4.39.26, p. 908

Hense). Obviously, I do not intend to argue that they are Hippodamian 'originals'. It has been demonstrated that these texts were collected in the Hellenistic period by Western Pythagorean circles and rewritten in the Doric dialect to cloak them in an aura of archaism (Thesleff 1972). But, although caution must be used, it is remarkable that these fragments refer to the community and city of a Pythagorean or Thurian Hippodamus. It is unlikely that the name of Hippodamus, who was not especially renowned in antiquity, was used as a pseudonym to lend authority to the texts; hence, these must be excerpts compiled in Hellenistic times by Neopythagoreans who seem to have, so to speak, incorporated Hippodamus into a Pythagorean tradition.

The fragments state that: a) society is exactly like a lyre, and hence the order and harmony it needs are of a musical nature; b) the Sophists (Protagoras?) are corrupters of souls who deny the existence of God; c) the education of young men must be promoted by organising *phratries* – associations at once military and political whose members take their meals together (the model is Sparta); d) the ideal state is the Tripoliticon (a combination of monarchy, oligarchy and democracy; this regime was already theorised in the fifth century, and in this case, too, the Spartan state is the model); and the author violently attacks the mass as troublesome and immoderate.

Finally, a possible explanation of the connection between Hippodamus and Rhodes can be sought in the story of an outstanding personage, the noble Dorieus of Rhodes, son of Diagoras, one of the greatest athletes in Greek history (Paus.VI,7). Sentenced to death by the Athenians, Dorieus fled to Thourioi, in the years when the city had undergone an oligarchic 'involution' and repudiated its mother town, Athens. Dorieus fought alongside the Spartans with 10 Thurian ships armed at his expense in 412–11 BC. Three years later (408 BC), the city of Rhodes was founded. It was planned, according to Strabo, by the same architect who planned Piraeus, whom we can call Hippodamus of Thourioi.

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