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Boeotian landscapes. A GIS-based study for the reconstruction and interpretation of the archaeological datasets of ancient Boeotia.

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II.3.10

Three small *chorai* to the Gulf of Corinth: Siphai, Thisbe, Chorseiai

TOPOGRAPHICAL SETTING

From a geographical and topographical point of view, we can talk about the whole area including the mountains behind and the small gulfs facing the Gulf of Corinth and belonging to ancient Boeotia. On the other hand, if we are interested in the area under the control of a particular *polis* in the Greco-Roman period, we should examine separately the individual territory belonging to a single community.

Philippson (1951: 455ff mainly) offers a good detailed topographical – geological description of the area as a whole. Conversely, Fossey (1988: 167-196) gives a description of each separate *chora*, since in the area we have in fact three small *poleis*, each with their own area. From E to W, they are Siphai, Thisbe, and Chorseiai.

As described by Philippson (1951: 455f), the promontory between the Zaltsa gulf and Sarandi bay creates an area

6km wide between the sea and Mt. Helicon. In antiquity the area belonged to the Phokian *polis* of Voulis, while the hinterland of Sarandi bay belonged to Boeotia (with the area of ancient Chorseiai and modern Chostia/Prodromos). In this area, on a mountain spine, was the fort of **Chorseiai** (today Kastro) 250m asl, below the monastery of Ag.Taxiarchoi. The passes through Helicon to Sarandi bay in the area are quite difficult, and they were probably not used for trade¹, while from the Eastern Domvraina basin a route is open through an incision² (at a height of 320m as opposed to the average elevation of the surroundings of 420m), at the Eastern end of which lies the modern village of Chostia/Prodromos.

The whole S slope of the Palaiovouna ridge (which marks the border of Boeotia with Phokis and constituted the S ridge of W Helicon – see appendix II) has water and forest coverage but also some cultivated terraces. This W part of the Helicon fringes to the E is bordered by a long

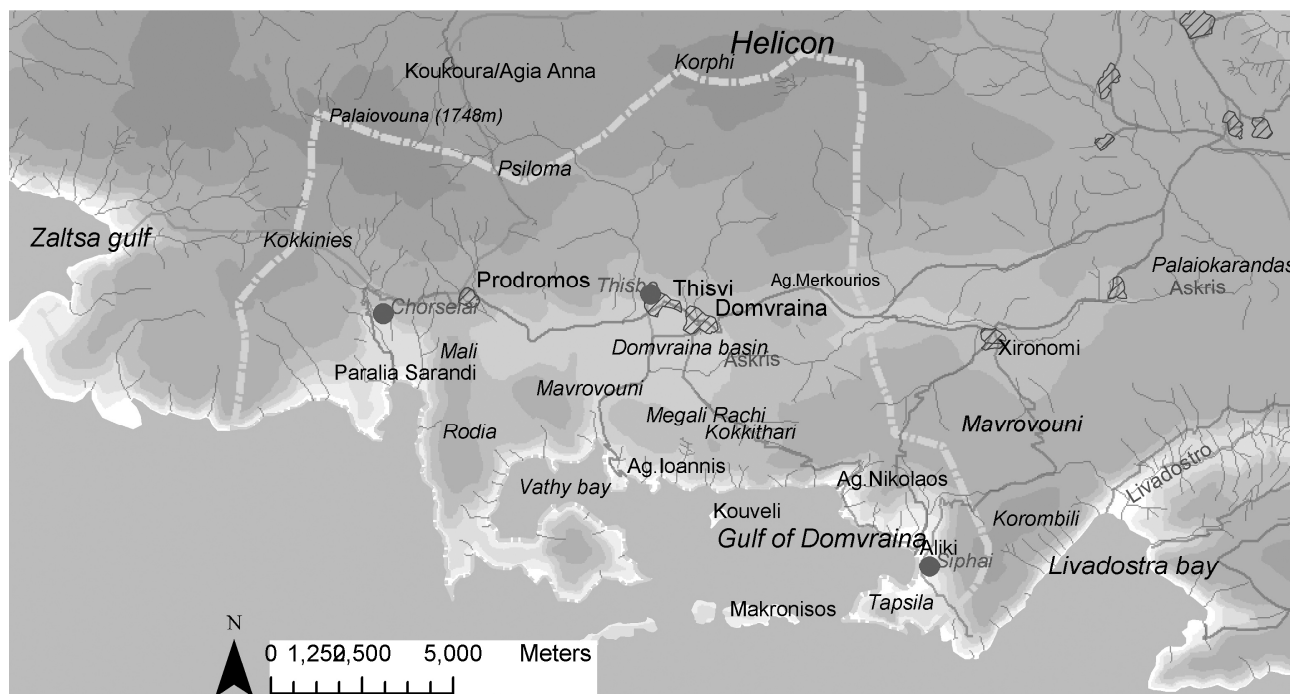


Fig.1. Topographical setting of the region.

¹ Though they were used by troops and armies. One of the paths (marked on route map – fig.2 and fig.1 in chapter II.1) comes from the upland plateau of Koukoura/Agia Anna (see Koroneia *chora* – chapter II.3.1).

² The incision through which the route runs is at a height of 320m as opposed to the average elevation of the surroundings of 420m (Philippson 1951: 455).

extended N-S hill, from 643 to 420m in elevation, with an incision to 320m. In this incision, at the foot of the mountain, lies the village of Chostia/Prodromos, which exploits the plain to its E.

To the E of the Chorseiai area, and separated from it by the L-shaped Rodia/Agiomachos promontory, is the mountainous coastal area forming the wide so-called gulf of Domvraina. In the middle of this wide gulf is the islet of Kouveli.

At the W end of the gulf is the Vathy bay that was never used as harbour due to the difficult access. The gulf, throughout which the depth of water is greater than 30m, is divided in smaller gulfs, among which the smallest is that of Agios Ioannis, the harbour of Domvraina, and the most Southern harbour of Boeotia – see Heurtley (1923/25). On this tiny gulf is a small hamlet with an Albanian population (fishermen with a few boats; in Philippson's time busy with the commerce of corn and cereals from the Copais to Corinth). The port is narrow and unsafe. A road connects the village with Domvraina and Thebes. In antiquity the bay was the port of the ancient *polis* of **Thisbe**, lying in an inner karstic basin (partially occupied by a marshy lake - see below) separated from the sea, the wide gulf of Domvraina, by a chain of coastal mountains crossed by the road from Agios Ioannis.

At the Eastern end of the wide gulf is the bay of Alikí, with a small plain where until a few decades ago were salt installations (seen by Philippson 1951: 456f), and in antiquity was the *polis* of **Siphai**. The small gulf, a potential sea-lake (from which the name of the modern village derives), is overlooked by the Korombili ridge, on whose slopes are areas with plantations producing olives and oil. Philippson (1951: 456f) notes that the harbour is more suitable for pirates and illegal commerce than for legitimate trading activities because the connection with the interior is difficult³.

Apart from a path around the coast, at the foot of Korombili (Roesch 1967: 292), there are only three ways to access Alikí from the hinterland (Tomlinson-Fossey 1970: 244): one, followed by a very recent graded road, leads through the high col between Korombili and the chief peak of Mavrovouni, and descends into the NE corner of the small coastal plain; another main route, possibly that used in antiquity, passes over the W shoulder of Mavrovouni and, beyond the Spartan military base (*component GC_17*), comes into the N side of the plain (marked on fig.2); a third route crosses over the very W part of the Mavrovouni ridge, descends to the coast and thence into the NW corner of the plain.

The forests of the high mountains, the cultivated plains, and the rocky limestone areas, along with the sea, with gulfs and small islets, though very close to each other, constitute several different landscapes whose proximity in a relatively small area is typical of the Greek landscape (Philippson 1951: 461).

³ For the harbours on the gulf of Corinth see Heurtley 1923/25.

The Korombili ridge, whose highest peak is 907m asl, lies between the Gulf of Domvraina and the Livadostra bay. The ridge, to the N, runs into a col which forms (see 1:200,000 *nomos* map) a flat surface (645 to 614m asl) lying between the Xironomi village basin and the Livadostra river valley (Philippson 1951: 461). These SE slopes of Korombili are mostly bare, with the exception of an area above the small gulf of Ag.Nikolaos with a small Aleppo pine forest.

The basin of Xironomi (360m long) forms the entrance to the small landscape of Domvraina, and it is, in fact, a sort of depression between Helicon and Korombili (constituting one of the systems of depressions along the gulf of Corinth).

The Domvraina valley

Due to the marked karstic character of the region, especially in the Western part of Boeotia we note the phenomenon of the formation of *poljes*. Some of them have been dried in recent times, but humans always had to fight against the emergence of water on the surface, or sometimes to make the best use of it. The Copais basin (examined in chapter III.1) is the major case in the region, and in the Balkan area, but we also have other cases of formation of small *poljes*, such as in the Domvraina valley.

The Domvraina valley is situated in the ancient *chora* of Thisbe, which extended between Mt.Helicon and the bay of Domvraina (see Pausanias IX 32.3⁴). It is a closed *polje*, surrounded by gentle slopes, with a basin of ca. 220 sq.km, crossed by the Askris river (ancient Permessos or Termessos) which flows into the deepest part of the valley, not far from ancient Thisbe. The valley is dominated by the Helicon massif, whose Mesozoic limestones are mainly covered by Pleistocene deposits. As Shiel and Steward (2007) state, “...in the lowest-lying areas, deposition of material eroded from the limestone massif and from the upstanding areas of Pleistocene deposits continue to the present; the existence of relatively unconsolidated sediments ensured that the landform is still evolving”. The unconsolidated superficial deposits of the alluvial plain are poorly provided with free water, and the fertile soils are scarcely developed.

The lowest part of the valley, marked by the 120m contour line and 6 sq.km in area (Knauss 1992), is occupied by marshes which still today, in the winter, become flooded and form a lake of variable depth and extension. Such a phenomenon is due to the karstic subterranean and superficial circulation of the valley, apparently without open *katavothrai*⁵. As Knauss (1992: 35) points out, the valley of Dhòmvrainai is the only *polje* of Greece with no visible, open *katavothra*. We cannot exclude the possibility, however, that some *katavothrai* might be buried under the Holocene sediments of the

⁴ πρῶτα μ ν ὄρος ἐστὶ πρὸς θαλάσση τοῦτο δ ὑπερβαλόντα πεδῖον σε ἐκδέξεται καὶ μετὰ τοῦτο ἄλλο ὄρος· ἐν δ ταῖς ὑπαρειαῖς ἐστὶν ἡ πόλις (Pausanias IX 32.3)

⁵ Natural subterranean channels, swallow-holes, typical of karstic basin landscapes.

valley, and that in some historical periods they might have been active. In antiquity, a system had been implemented in order to alternately free from excessive water the two halves (E and W) of the marshy *polje* (E and W) of the marsh, by means of a dam crossing the basin, as attested by Pausanias (IX 32.3). This would allow the inhabitants of Thisbe to cultivate the free half. In prehistory also, the water behaviour of the *polje* was controlled (see fig.2 and Knauss 1992 map in fig. 4.3).

The hydrological basin of the valley corresponds only partially to the hydrogeological basin, because a portion of the effective precipitation which penetrates underground as far as the water-bearing strata, reaches water sources situated outside the basin and feeding also, for instance, the contiguous Asopos basin. This kind of phenomenon is also quite common in karstic systems. The main stream of the valley, the Askris, originates in the Valley of the Muses, from which it has water most of the year. The river runs initially to the SE towards Thespieae and the steep-sided promontory of Palaiokarandas (chapter II.3.9, fig.1). In the Thespieae basin the river loses, most probably especially in periods of heavier rainfall, part of its water to the Asopos, from which it is separated by a low watershed (Knauss 1992; Sheil and Steward 2007). At this spot, the Askris turns to the W-SW, collects water from some of the seasonal creeks fed by the Helicon and ultimately drains into the lowest part of the valley, near ancient Thisbe. The typical Mediterranean rainfall, characterised by a strong annual variability and with short but heavy rainfall, alongside the absence of any superficial or subterranean effluent, is a basic factor in the erosion phenomena, and in the frequent floods that still today affect the lowest part of the valley, which is also the most fertile. This may explain the long-term/continuous human intervention in order to regulate the water, by means of drainage works, many of which are of considerable size. The valley has been a centre of inland drainage for centuries; since Prehistoric times⁶. Banks, channels, and basins for water collection, have been described by Pausanias during his visit to Thisbe, and remains of these works have been noted since the 19th century (Knauss 1992).

Pausanias (IX 32.3) mentions the flooding of alternate portions⁷, and the fact that inhabitants of Thisbe built up a bank, to deviate the watercourse 'in alternate years' to one side of the bank and cultivate the land which is on the other side⁸. Unfortunately, he does not give us either a date or a chronological reference, even reported by a saying, for this work, as is the case for many other drainage works in Greece mentioned by the sources (Fantasia 1999), from which we can almost never argue a

⁶ For the archaeological evidence, on drainage and related works, of the various periods, see Knauss 1992.

⁷ τὸ δὲ πεδίων τὸ μεταξὺ τῶν ὄρων ἐκόλυεν οὐδὲν ἂν λίμνην ὑπὸ πλῆθους ἐν τοῦ ὕδατος εἰ μὴ διὰ μέσου χώμα σφισιν ἐπεποιήτο ἰσχυρόν· καὶ οὕτω παρὰ ἔτος ἐς μὲν τὰ ἐπέκεινα τοῦ χώματος ἐκτρέπουσι τὸ ὕδωρ τὸ δὲ ἐπὶ τὰ ἕτερα αὐτοῦ γεωργούσι (Pausanias IX 32.3).

⁸ Kirsten 1951: 459, n.1. According to some scholars (see Fantasia 1999), Knauss 1992: 43ff is probably wrong in interpreting the phenomenon as a non-functioning polder to the W side of the dam, in the year of Pausanias' visit.

date of construction and creation of such measures. This may tell us something about the perception of the ancients in relation to this kind of human intervention on the water landscape. At least in Pausanias' time, what was important was probably that such works were there, functioning, and probably also that people made them at some point, no matter when.

PHYSICAL LAND UNITS

The three types of landscape are all represented in the wider area, and also within the three small individual *chorai*. The physiographical classes are also all represented (see table 1 and fig.2 in chapter II.1).

<i>Hilly landscape</i>	42.3%
<i>Mountainous landscape</i>	26.9%
<i>Plain</i>	30.8%

1	P1_P2	lacustrine basin, valley	9%
2	P3	gentle slope	1.9%
3	P4	foothill	19.9%
4	H1	plateau	9.5%
5	H2	gentle slope	1.4%
6	H3	moderate slope	8.4%
7	H4	severe slope	12.6%
8	H5	very severe slope	10.4%
9	M1	plateau	4.6%
10	M2	plateau/gentle slope	4.9%
11	M3	moderate slope	8.7%
12	M4	very severe slope	8.6%

Table 1. *Percentage of the different physiographical classes present in the Gulf of Corinth area (P=plain; H=hill; M=mountain)*

The plain landscape is represented by the inner basin and depressions (P1_P2 and P3 - namely, for instance, the larger Domvrainia basin, the area from ancient Chorseiai towards the Sarandi bay, and a few smaller areas behind and within the so-called limestone plateau following the shore-line⁹), and their sloping foothills (P4).

Quite steep slopes characterise the hilly part of the landscape (steep slope features -H4- mark the fringes of Helicon as well as the elongated ridge enclosing the Sarandi bay -S of ancient Chorseiai- to its W), combined with small plateaus (the only larger one is the end of the Permessos/Askris valley before it descends into the Domvrainia basin). The physiographical situation characterising the end of the Permessos/Askris valley and the Domvrainia basin into which the river flows is interesting; one can clearly see how the Domvrainia basin constitutes a lower depression (P1_P2 class) separated by a steep slope (P4) from the Permessos/Askris valley, which is in the hilly segment, forming a higher plateau (H1).

The mountainous segment (>600m asl) is represented almost exclusively by the Helicon massif, overlooking the whole area from the N and NW.

⁹ see appendix II - b4.

RESOURCES

Generally speaking, the area is mainly characterised by unfertile areas (U) for agricultural activities, with few exceptions (F class constituted mainly by the Domvraina basin, which, however, is occupied seasonally by marshes – see below, and the valley to the S of ancient Chorseiai, with a few other alluvial pockets). The low fertile (LF) area to the NE is part of a very steep slope landscape on the Helicon massif and therefore probably only used for grazing (see fig.6).

In the following paragraphs, we will look more carefully at the land characteristics and resources of each single community chamber.

The area of ancient **Siphai** comprises the small plain around the Aliki bay and the mountain slopes that enclose it: Korombili to the E, and to the N its large projection, the ridge of Mavrovouni; to the S the small ridge of Tapsila, another outcrop of Korombili, which forms the arm of land enclosing the bay to its S (Fossey 1988: 167). No permanent watercourses flow through the area, which is, however, crossed by many seasonal rivulets. Part of the plain supports cereal crops, but it is mainly cultivated with olive trees (Fossey 1988: 167). In the past there was a large salt pan in the NE corner of the bay (seen by Philippson 1951: 456f). In the past, fishing activities would be also form a part of the economy of the area¹⁰, as well as grazing on the coastal plain and surrounding slopes¹¹.

The area of ancient **Thisbe** comprises the area between Mt.Helicon to the N¹² and the bay of Domvraina to the S (Fossey 1988: 178), and therefore includes the large karstic basin of Domvraina (a *polje*), the centre of inland drainage, whose landscape was very much different in antiquity, marked by fluctuating marshes (see above)¹³. To the E, the border of the area is denoted by the southward projections from the Helicon massif which divide the *polje* from the plain of Thespieae, with the pass of Ag.Merkourios as the real only break (Roesch 1965:

¹⁰ A particular type of fish was caught there: Aristoteles *HA* II 13 (from Fossey 1988: 167).

¹¹ Especially in the past, but still today, flocks are taken from the Zagora/Evangelistria village on Helicon to these lowland pasturages during the winter.

¹² Peaks of Korphi 1265m asl and Psiloma 1105m asl. The upland plateau of Koukoura to the N of this line was disputed between Koroneia and Thisbe, as documented by IG VII 1870 (in this study, the area has been included in the Koroneia *chora*).

¹³ S and SW of the modern village of Kakosi/Thisbi is a karstic basin whose lower part (100m) is a winter lake which collects the water from the snows of Helicon (larger in March). The basin also collects water from the river Askris, which ends here (Philippson 1951: 458). The Permessos/Askris river probably had a swampy bed in this area in ancient times (Gregory 1992: 29). For a description of the physical characteristics and nature of the Thisbe karstic basin (*polje*) see above in text and Knauss 1992.

52 and plan XIV.1 quoted by Fossey 1988: 177); to the W by the southward projection of Helicon known as Malia Senga¹⁴ (with the peak of Mali), which separates the area of ancient Thisbe from that of ancient Chorseiai. To the S, separating the inner basin (*polje*) from the gulf of Domvraina is a lower ridge of mountains (namely, from E to W, Kokkithari – Chimadio/Kivadio/Megali Rachi – Mavrovouni) – Gregory 1992: 19. From the inner area, there are a few routes to the sea: one at Kreusis, the ancient port of Thespieae (Pausanias IX 32.1; Pieske 1922), in the Thespieae *chora* (see chapter II.3.9); another in the area of Thisbe, at the SW corner of the Domvraina basin, towards Vathy/Ag.Ioannis, the ancient port of Thisbe. The latter runs through a low pass between the Chimadio/Kivadio/Megali Rachi and Mavrovouni ridges¹⁵. Only the narrow valley of the Permessos/Askris river easily connected Thisbe to the rest of Boeotia.

The W part of the *polje* is farmed today by the inhabitants of the village of Chostia/Prodromos (which, however, mainly exploits the area of ancient Chorseiai, to the W). The main farmland available to ancient Thisbe was the basin of Domvraina (according to the condition of the *polje*) and its surrounding slopes, as well as the small littoral of the gulf of Domvraina (Fossey 1988: 184).

The W part of the N edge of the basin is formed by the hillsides of the Palaiovouna ridge (Helicon), sloping abruptly, while the E is a much more gentle karstic landscape with limestone depressions (dolines) among red soils, along with fields and their boundaries. In Philippson's time, there were olives and vineyards at the S edge of the basin, while cereals and corn were cultivated in the fertile areas (Philippson 1951: 458). The other three sides of the basin (E-S-W) are bordered by the limestone plateau (constituting the littoral string of mountains – see appendix II).

As Gregory (1992: 21) points out, the territory controlled by Thisbe was naturally limited in extent and quality. In the inscription, IG VII 2225, reporting a *Senatus Consultum* of the Imperial period, the nature of Thisbe's terrain is threefold: land, harbour, and mountains (Il.18-19). The production of crops is mentioned in l.53 (though the agricultural capability of the Thisbe basin was certainly limited to the rich and deep alluvial soil of the basin¹⁶, yet always threatened by flooding, contrasting with the poverty and bareness of the surrounding hills and mountains – Gregory 1992: 21). Wine production is not mentioned, despite the land producing good wine today (Fossey 1988: 184). Grazing was also an exploited resource but, certainly, a large part of the city economy was based on the port of Vathy and the exploitation of long-distance trade¹⁷.

The control of the area of Koukoura/Agia Anna was therefore crucial to ancient Thisbe both due to the need

¹⁴ Stamalios (to the N = Mali) and Rodia (to the S) on the 1:50,000 GYS map.

¹⁵ For ports and communication routes in the area see Heurtley (BSA 1923/5).

¹⁶ Deposits of the Permessos/Askris river.

¹⁷ Since Mycenaean times, when a considerable N-S trade through Boeotia has been argued (Heurtley 1923/25, vs Gomme 1911/12 who disagreed).

II.3.10 GULF OF CORINTH

for more cultivable land to support its population, and for control of the upland routes connecting the N of Greece and W Boeotia to the harbour on the Gulf of Corinth. Both these reasons would explain the dispute with Koroneia over control of the upland plateau (see above, footnote 12).

The area of ancient **Chorseiai** is comprised of a small valley in the S flank of Helicon, ending at the Corinthian gulf in the coastal plain of Sarandi. It is crossed by seasonal rivulets (Fossey 1988: 187). The settlement chamber of the small ancient *polis* is geographically well defined by mountains belonging to the Helicon massif to the E-N-W, and by the sea of the Gulf of Corinth to the S (Fossey 1988: 196).

Even today access to the area is limited to the route over the pass of Malia Senga¹⁸ from the modern village of Chostia/Prodromos, and to another much more difficult pass over the higher ridge to the W of the valley (Rachi Mada - Kokkinies on the 1:50,000 GYS map) leading to the Zaltsa bay and the ancient town of Voulis in Phokis, which the territory of ancient Chorseiai bordered (Roesch 1965: 56-8, remarking on the isolated nature of the area; Dasios 1995¹⁹).

Only a very small part of the territory is strictly cultivable, with olive groves and vineyards²⁰. Pasturage land and fishing are also available resources (Fossey 1988: 196).

THE ARCHAEOLOGICAL RECORD

Siphai chora

1	Aliki (ancient SIPHAI)	<i>Components GC_1 to GC_8</i>
2	Aliki SW	<i>Components GC_9 and GC_10</i>
3	Aliki S	<i>Component GC_11</i>
4	Alonnisi Alikis	<i>Component GC_12</i>
5	Mavrovouni Kastron	<i>Components GC_13 to GC_18 and GC_79</i>

Thisbe chora

6	Kakosi-Thisvi (ancient THISBE)	<i>Components GC_19 to GC_25, GC_77 and GC_78</i>
7/8/9	Kakosi-Thisvi	<i>Components GC_26 (7), GC_27 (8) and GC_28 (9)</i>
10	Kakosi-Thisvi area	<i>Component GC_29</i>
11	Ormos Ag. Ioannis	<i>Component GC_30</i>
12	Vathy (gulf of Domvraina)	<i>Components GC_31 to GC_36</i>

¹⁸ Stamalios (to the N = Mali) and Rodia (to the S) on the 1:50,000 GYS map.

¹⁹ In the past, as today, an upland road very twining led from Voulis to Helicon, through a pass (between Palaiovounas - 1748m asl- to the E and Tsiveri -1560m asl- to the W.) The same pass probably also followed the Phokis – Boeotia border (Dasios 1995, who refers to Pritchett 1985: 144, n.9).

²⁰ As reported in Fossey 1988: 196, Thisbe helped Chorseiai during a shortage of grain (probably in the late 2nd C BC) IG VII 2383.

13	Kivadio	<i>Component GC_37</i>
THISBE BASIN survey sites	Thisbe basin D-3	<i>Component GC_38</i>
	Thisbe basin C-1	<i>Components GC_39 to GC_41</i>
	Thisbe basin C-3, D-1, D-2, E-2, E-1	<i>Components GC_42 and GC_43, GC_45 to GC_54</i>
	Thisbe basin C-4	<i>Component GC_44</i>
KOUVELI island survey sites	Kouveli island K-1	<i>Component GC_55</i>
	Kouveli island K-3	<i>Component GC_56</i>
	Kouveli island K-4	<i>Component GC_86</i>
MAKRONISOS survey sites	Makronisos M-1 (Diporto)	<i>Components GC_87 and GC_90</i>
	Makronisos M-2	<i>Component GC_89</i>
	Makronisos M-3	<i>Component GC_88</i>

Chorseiai chora

14	Prodromos Kastron (ancient CHORSEIAI)	<i>Components GC_57 to GC_66</i>
15	Prodromos Kastron S	<i>Component GC_67 and GC_68</i>
16	Prodromos Kastron N	<i>Component GC_69</i>
17	Prodromos Kastron NW	<i>Component GC_70</i>
18	Mali	<i>Components GC_71 to GC_74</i>
CHORSEIAI COUNTRYSIDE survey sites	Chostia WR-1	<i>Component GC_80</i>
	Chostia WR-2	<i>Components GC_81, GC_82 and GC_83</i>
	Chostia WR-3	<i>Component GC_84</i>
	Chostia M-2	<i>Component GC_85</i>
	Chostia WP-1 (Sarandi Peninsula)	<i>Component GC_75</i>
	Chostia ER (Eastern Ridge)	<i>Component GC_76</i>

Table 2. List of archaeological components and activity loci mapped in fig.2.

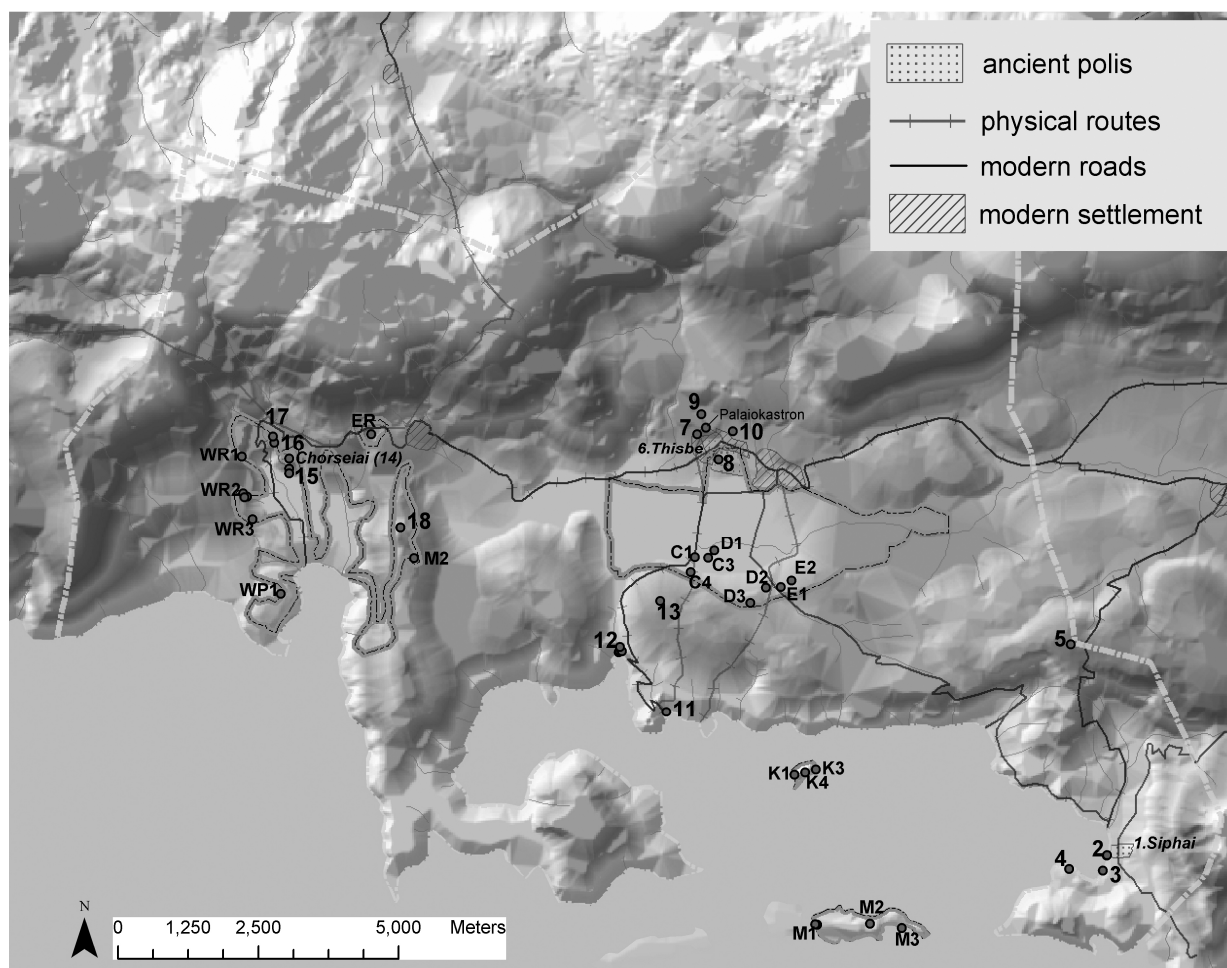


Fig.2. Archaeological map of Gulf of Corinth area

The wider area consisting of the three ancient *polis* chambers is archaeologically known by means of extensive and topographical surveys; in particular the topographical work of Tomlinson and Fossey (BSA 1970: 243-263).

More systematic research (but always marked by a topographical imprint) was carried out by Fossey and his team in the area of ancient Chorseiai. Their results are presented in several articles and conference papers, as well as in the monograph *Khostia I* (1986). Systematic research was focused on the site of ancient Chorseiai, at Mali in 1980, and in 1983 on the so-called Western ridge (Kokkinies on the 1:50,000 GYS map) and on the so-called Western peninsula (Gauvin *Khostia I*: 51)²¹, and concentrated on structural visible remains (see below – RURAL SEGMENT).

Intensive and systematic survey has been carried out by T.E.Gregory in the area of ancient Thisbe²² (in 1979 and following years – results presented in Gregory 1992) and

on the small offshore islands of Kouveli and Makronisos in the gulf of Domvraina (1981, 1982 and 1984)²³ – see above, Thisbe basin – Kouveli - Makronisos.

Problems-oriented research has also been carried out in the area, e.g. by Heurtley, working on Boeotian harbours (Heurtley 1923/25), and focusing especially on Bronze Age evidence.

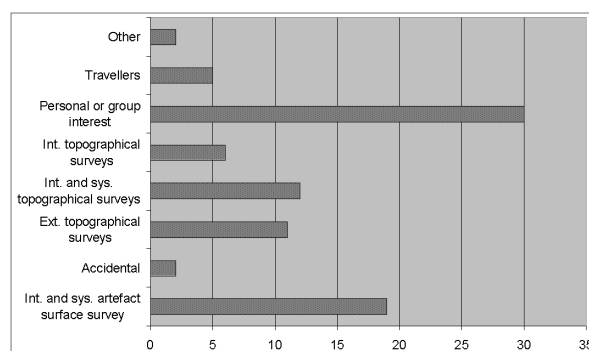


Fig.3. Graph illustrating the proportion of components discovered within different research frameworks.

²¹ The surveyed areas are marked in Fossey - Gauvin 1983.

²² The surveyed areas are marked on Gregory 1992: 24, fig.3.4. This was an intensive and systematic field-by-field artefact surface survey with fieldwalkers 10m apart. The aim was the investigation of the relationship between the urban area of Thisbe and its rural hinterland, and the collection of evidence of settlement patterns in the Thisbe basin over time (Gregory 1992: 22).

²³ Intensive and systematic surface survey, mainly architectural, with fieldwalkers 5m apart.

In fig.4 we can see the relationship between known archaeological sites and the distance from the modern road network. Correspondence seems quite strict, but this is probably due to the modern road circuit corresponding to the old one as topographically conditioned, rather than to a bias in research strongly influencing the resulting pattern.

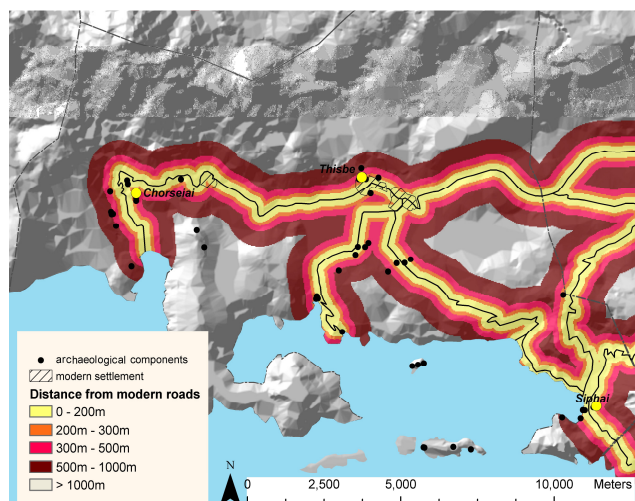


Fig.4. Relationship between components and modern road network.

The ratio of known Prehistoric to Greco-Roman components is 13 to 67 (1:5.1), while among the historical periods, 49.3% are dated Archaic to Hellenistic, 39.1% Roman-Late Roman, and 11.6% are attributed to the general Greco-Roman period.

The quite unusual abundance of Roman-Late Roman (mainly Late Roman) sites is probably due to the success of intensive and systematic surveys in filling in the rural segment of the landscape, as well as to the flourishing of the area in that period (see below).

ANALYSIS OF THE CHORA LANDSCAPE

PREHISTORIC PERIOD

Prehistoric occupation in the area (from EH through to LH, it seems²⁴) is known at the three historical *polis* sites, identified mainly because of careful investigation at the Greco-Roman sites, but also due to their outstanding location within the relatively small settlement chambers (see *passim* in the chapter).

An important EH settlement has been identified at Alonnisi Alikis, in a suitable location for a habitation site

²⁴ Less sure is the EH presence at Kakosi/Thisbi Palaiokastro site (*component GC_19*) and Prodomos Kastron (*component GC_58*).

of that period, in a fairly elevated location overlooking a sea-lake²⁵ (see fig.7 in chapter II.3.1).

MH activity foci are known from the three *polis* sites of the Greco-Roman period (see fig.8 in chapter II.3.1).

LH activity foci are located at the historical city sites of both Siphai and Chorseiai (*components GC_3 and GC_60*), while LH burials are known from the outskirts of the important LH site identified at Palaiokastro hill (historical Thisbe - *components GC_26 and GC_28*). An activity focus in the LH period (which could represent a refuge place – Fossey 1988: 196) has been identified also at Mali (ridge to the E of historical Chosteiai city site) – *component GC_71* (see fig.9 in chapter II.3.1).

Apparently the area was strategic for N-S long-distance commerce from the Mycenaean period, as suggested by Heurtley 1923/25 (though Gomme 1911/12 disagrees). In fact, traces of ancient roads, for which a probable use in Mycenaean times has also been suggested, leading to the natural harbours (certainly in use in historical times) of Alikis and Vathy, have been noted, as well as the possibly fortified LH settlement on the hilltop by the sea at Alikis (*component GC_3*). Furthermore, it is self evident that Thisbe (carrying a name of pre-Hellenic origin), must have played an important part in the economy of Mycenaean Greece with its harbour town of Vathy, constituting the natural haven on the N shore of the gulf of Domvraina for routes between Mycenae and Kenchreae, and a Boeotian route via Thespieae to Thebes (Evans *JHS* 1925: 1-42, with reference to the so-called ‘Treasury of Thisbe’²⁶).

Interestingly, no Prehistoric activity focus has been noted by either the intensive topographical or the field-by-field artefact surface survey work carried out in the area, with the exception of some scattered obsidian flints mentioned briefly by Fossey and Gauvin when discussing the ‘unfortunate condition’, with regards to visibility of archaeological remains, of the alluvial plain below ancient Chorseiai (Fossey and Gauvin 1983: 237; see below footnote 28).

GRECO-ROMAN ANTIQUITY²⁷

Town level

The town level is represented by the three *polis* sites which constitute the main settlements of the territories they controlled, at least from the Archaic to the Late Roman period (see above for description and borders of those geographically quite well marked settlement chambers; see appendix I.10 for detailed chronology). Chorseiai, and especially Siphai, can be considered as belonging to the category elsewhere called *proto-poleis*, which appeared in early periods, and developed into towns but never into proper *poleis*, while Thisbe, far larger in extension, is a good example of a second-rank

²⁵ The location is comparable to that of the majority of EH sites around the Copais basin.

²⁶ See appendix I.10, *component GC_28*.

²⁷ Period maps are included in chapter II.4, figs.17-19-21-23-25-27.

real historical *polis*, as pointed out also by Gregory (1922: 19ff).

Village level

Secondary level (satellite) settlements are less easily recognisable. In the small *chora* of Siphai there was probably no place for a second settlement site (apart from a settlement grown up in the Roman and Late Roman periods around the harbour installations in Aliki bay); nor in the Chorseiai area, where the hilltop settlement recognised at Mali seems to have been linked to specific historical periods and defensive urges (see above, Mali site). Even the *chora* of ancient Thisbe, larger in extension and today supporting two villages (separated by historical accident, but for the most part one large village), did not allow for the presence of a second rank settlement site (see above – resources), if one excludes the settlement that grew up in the Roman and Late Roman periods around the harbour of Vathy. *Thisbe basin C-1 (components GC_39 to GC_41)* was probably a large rural site (hamlet-like) rather than a proper village.

Rural segment

The rural landscape of the *chora* is represented mainly by the results of the two intensive surveys carried out in the Domvraina basin (Gregory 1992, primarily) and in the area of ancient Chorseiai (Gauvin Khostia I: 51-81, mainly).

For the area of ancient Chorseiai, the picture of the rural landscape given by the survey work is that of a quite heavily populated countryside in the Late Classical – Early Hellenistic period, as attested by other survey projects in the wider region (mainly the Boeotia survey project). On the other hand, while the wider Boeotia survey project is dealing especially with potsherd concentrations and scatters on the surface (forming various assemblages), archaeological evidence available here is mainly comprised of architectural and structural features (single buildings or complexes with or without courts or other adjacent structures, sometimes with tower buildings). This is partially due to the personal research interest of the scholars involved in the survey²⁸, but certainly also to post-depositional and taphonomic

²⁸ The scholars involved in the survey are much more interested in standing structures or building remains, in their plan, and employed walling techniques, rather than to pottery assemblages (which they use to date the structures). Moreover, they concentrated on the ridge slopes and would not look in the lower alluvial valley since “*il serait presque miraculeux de pouvoir retrouver aujourd’hui trace*” (meaning ‘structural trace’) of any of the rural buildings (which one might suppose must have exploited the valley for cereal cultivation, olive as well as wine and fruit trees), because of the heavy alluviation which would have filled the Sarandi plain with recent soils. They note that a careful examination of the area has given occasional scatters of black glaze or Late Roman sherds – as well as some obsidian flints – in freshly ploughed fields (Gauvin Khostia I: 80 and Fossey and Gauvin 1983: 237). Gregory’s work in the nearby Thisbe plain (not to mention other areas of Boeotia or elsewhere in Greece) would prove the opposite, giving meaning to those artefact scatters mostly not associated with visible structural remains (see above in text – Gregory 1992).

factors, mainly erosion, which would allow structures to be visible on the surface, while soil with associated material would mostly have been washed away. This offers a favourable situation for the study of architectural remains, not always easily available elsewhere²⁹. The rural sites found are relatively small, and some of them are probably to be interpreted as ‘*fermes d’élevage*’ (Gauvin Khostia I: 80), linked to pastoral activities and to the keeping of the flocks within the enclosure (see for instance site WP-1 *component GC_80*)³⁰.

As for the Domvraina basin, rural occupation of the landscape seems to have been concentrated in a broad band around the N, S and E of the plain at the edge of the large marshy *polje* area partially controlled in antiquity (Knauss 1992)³¹, at elevations between 100 and 140m above sea level, and the population appears to have followed the course of the water-control device S of Thisbe (see above). Apart from the urban settlement of Thisbe and the Vathy port, the rural segment is represented by a large rural agglomeration (*components GC_39 to 41*: Classical, Hellenistic and Late Roman) and a network of small isolated farmsteads (Gregory 1992: 33), mainly occupied in Late Classical-early Hellenistic and Late Roman times (and giving therefore the usual picture of the Boeotian countryside).

Burial areas

Burial areas are apparently not known. This might be due to a bias in research, mostly concentrated on ridges and outstanding locations, rather than to the plain and by the lowland routes, where necropoleis were probably placed. Even at the outskirts of the detailed-survey city sites (Chorseiai and Thisbe), few signs of burials seem to have been noted, with the exception of some Roman burials noted at various points near the ancient roadway descending from the S gate of ancient Chorseiai (*component GC_68*), and some accidental finds probably belonging to Roman burials reported from around the modern village of Kakosi/Thisbi (*component GC_29*).

Cult places/Religious areas

Few cult places are known, and some are only mentioned by ancient sources or epigraphical evidence. Archaeologically known are *component GC_69* (remains of a temple to the W of ancient Chosteiai), *component GC_11* (a Roman extramural cult place at the very Southern end of Aliki beach), and, on the W slopes of Mavrovouni, *component GC_13* (a small sanctuary from Geometric to Hellenistic times).

²⁹ The same phenomenon happens in Attica. See the Athene survey, carried out by Lohmann in Attica (Lohmann 1985 and 1992), and also the earlier work of Young on South Attica farms (1956: 122-126).

³⁰ Husbandry, probably in combination with bee-keeping and oil production (Gauvin Khostia I: 80).

³¹ In Pausanias’ time the two halves (E and W) of the basin were alternately drained and exploited (Pausanias IX 32.3; for details see Knauss 1992, map in fig.4.3).

Forts and fortifications

In general, the known fortifications are linked to the *polis* settlement sites, which were fortified in most periods of history. Other forts (namely watchtowers) are related to the control of passes, mainly connecting the inner areas with the coastal plains and ports, through the coastal ridges (see above, land and resources) – *component GC_37* (Kivadio) and *component GC_79* (Mavrovouni), as well as the forts above Vathy harbour (*component GC_35*) and at the N end of the Vathy bay (*component GC_36*).

LONG TERM SETTLEMENT TRENDS IN THE CHORA LANDSCAPE

Several modern villages (Prodromos, Thisvi, Domvraina) in the territory of the ancient towns occupy the inland fertile plains and extend their territory to the coast to the S, where their small harbour sites are located, and to the N, to include part of the upland mountainous country of the southern ridges of Helicon (Paliouvouna, Motsara). The villages go back to the Ottoman period, and in some cases show continuity from antiquity through the medieval period. The small harbour sites also appear active in the medieval and Ottoman period, creating a pattern comparable with the *polis*/harbour pattern of the ancient settlement system.

The modern village of Prodromos (formerly Chostia), recorded in the Ottoman archives from 1466 to 1570 and then 1642 to 1688, forms an example of a possible surviving Greek community from the small ancient city of Chorseiai to its W, certainly active in Late Roman times (Fossey Khostia I – see appendix I.10), hence the survival of the name (Bintliff-Kiel in preparation). Sarandi (modern Paralia), the harbour of Chostia, appears in medieval portulans, indicating the existence of an ‘inland village / harbour (*skala*)’ pattern in the medieval and post-medieval period (see the results of a cost-distance analysis³² performed for the ancient settlement network - fig.5).

Thisvi (formerly Kakosi) is the next modern village to the E, occupying the territory of the ancient *polis* of Thisbe. This small Greek village is recorded in the Ottoman defters (1466-1688) and also shows evidence of important Frankish and Byzantine remains, indicating descent from ancient Thisbe. The settlement chamber of the ancient *polis* with its wide fertile plain is also exploited today by another village next to modern Thisbe, Domvraina (modern Korini). While Thisvi is the remnant of the Byzantine village, the people of Domvraina, recorded in the Ottoman register (1466-1570) as an Albanian village, probably settled here to enlarge the reduced Greek population (Bintliff-Kiel in preparation)³³. Small harbours to the S (Ag. Ioannis and Ag. Nikolaos)

respectively serve the two villages³⁴, which in antiquity belonged to a single settlement chamber (see fig.5).

Another settlement chamber exists today to the E along the inland alluvial valley of the Askris river, occupied by the modern village of Xironomi in the interior and its harbour site, Aliko, on the coast. In the Ottoman period the Albanian village Tatiza (registered in 1466-1646, with also possible remains of a Frankish tower) occupied the settlement chamber just N of Xironomi, a small alluvial plain on the route from Thespie to Thisbe. Aliko, the harbour site of modern Xironomi, is linked to this village through the 1871 toponym Tatiza Aliko (Bintliff-Kiel in preparation). Although this settlement chamber seems comparable to those of Chorsia and Thisbe to the W, the settlement history in antiquity seems to have been different. The harbour site of Aliko was cut off from its hinterland and forms a separate small *polis*, Siphai (fig.5). The inland interior and the fertile alluvial valleys seem to be connected to Thespie, which appears to have controlled this area of natural passes³⁵. We should note, though, that this separation may also have a topographical reason, since the Mavrovouni ridge (higher and wider than the limestone coastal plateau separating the Thisbe basin from the sea) cuts the plain of Xironomi from the small coastal plain of Aliko (Siphai). The latter is larger than the other small harbour sites to the W, and is therefore able to support a small city or *kome*.

Therefore, in the Boeotian area facing the Gulf of Corinth, the medieval/post-medieval and traditional settlement pattern is comparable with the ancient settlement system (fig.5). In antiquity, the area was divided among three *chorai* with similar characteristics: the main centre in an inner position (except Siphai), an occupation of the countryside which differs amongst the different periods of the Greco-Roman, and a harbour site (or more) on the coast, more or less easily reachable from the main settlement. Communication routes were land-routes connecting the settlements, but certainly also sea-routes connecting the harbours³⁶. The known sites are concentrated around the small fertile inland basins and coastal plains (fig.6), while they are absent in the peripheral border zones which are dominated by limestone ridges (with the exception of forts³⁷ and the early settlement of Mali, *components GC_72* to *GC_74*). The topography therefore creates clear borders between the three community areas.

³² For the application of this GIS analysis see chapter II.3.1 – LONG TERM SETTLEMENT TRENDS

³³ Yet the Slavic origin of the name suggests a deserted medieval site at this location (Bintliff-Kiel in preparation).

³⁴ Ag. Ioannis is possibly to be identified with the location of an Ottoman village.

³⁵ See chapter II.3.9 for a discussion of settlement in the area.

³⁶ As Dasios (1995: 245) notes, communication between ancient Voulis in Phokis (Chorseiai’s neighbour to the W) and other Phokian *poleis* were by sea. We might suppose it would be the same as for the Boeotian *poleis* to the Gulf of Corinth.

³⁷ For instance, Ano Siphai, *component GC_13*.

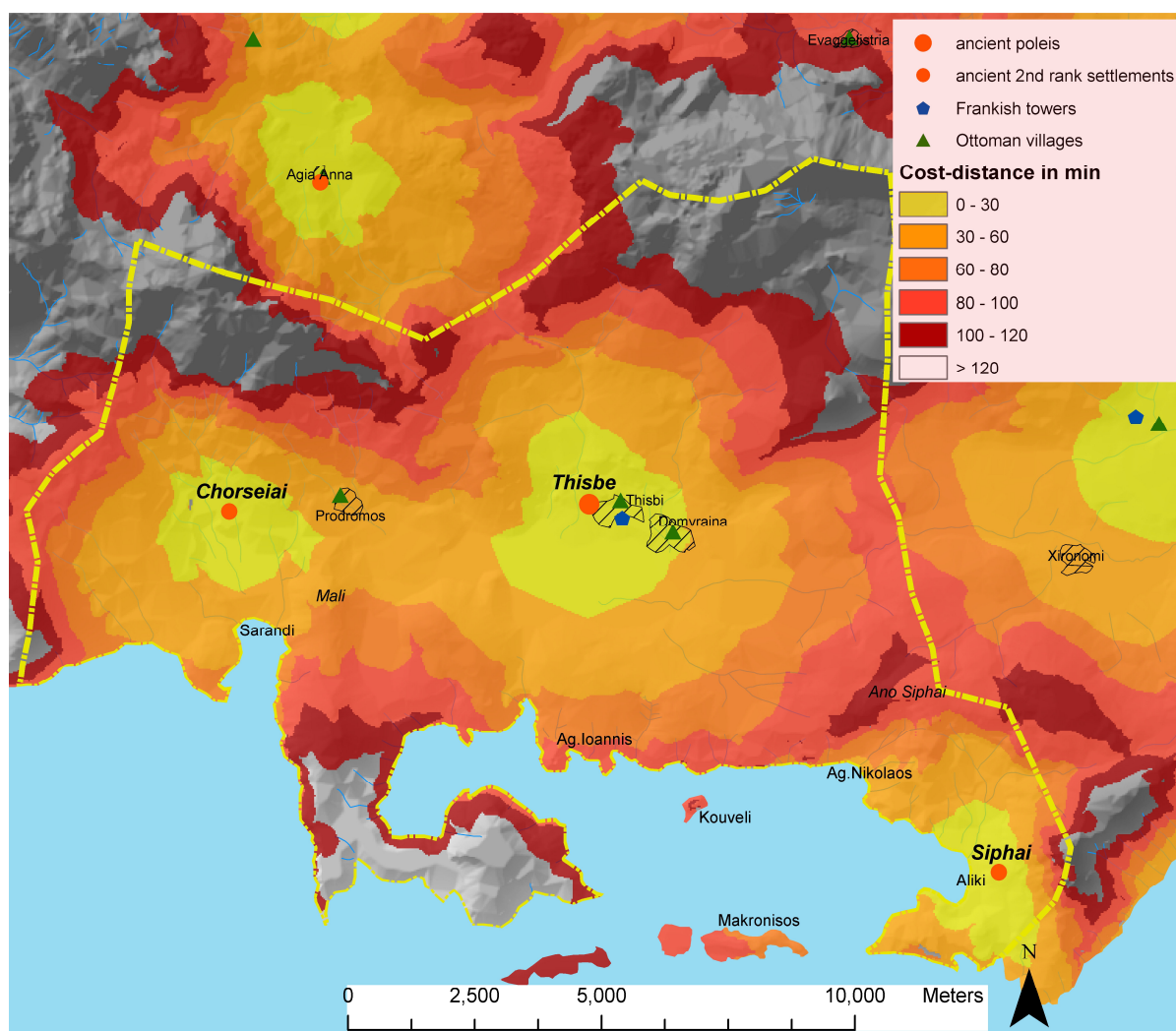


Fig.5. Classified surface representing the cost-weighted distance (1/2 h walking and further ranges) from recognised 1st and 2nd rank ancient settlements (represented by larger and smaller dots). Areas without dots indicate potential settlement chambers. Ottoman villages and Frankish towers have also been added to the map to show their spatial relationship with the Greco-Roman settlement network and to appreciate potential settlement chambers.

The Gulf of Corinth linked the cities to, rather than separated them from, the outer world. As stated by Gregory (1986: 21), both Kouveli and Makronisos islands³⁸ seem to have been part of a widespread long-distance commercial network, as attested by the harbour sites and the occupation on the islands³⁹ in the Late Roman period (see appendix I.10, Kouveli and Makronisos), contemporary to the harbour sites at Vathy and Aliko (see above *passim*), all part of a larger commercial settlement pattern in the Gulf of Domvraina and beyond. In fact, the area (mainland and gulf) was interested by long-distance trade routes, considering that the products from Copais (and from all central Greece) also used to be traded beyond Boeotia through the harbours on the gulf of Corinth, and from these ports

³⁸ Fossey (1988: 174) suggests that some of the islands in the bay of Domvraina may have belonged to ancient Siphai.

³⁹ The inner rural sites (see above, Kouveli and Makronisos sites) would probably be sparsely inhabited, and their primary function would have been to supply the larger commercial settlements, where the population would concentrate.

goods could be transported with relative ease across the coastal ridge and into the interior of Boeotia⁴⁰.

Chorseiai, and especially Siphai, can be considered as belonging to the category elsewhere called *proto-poleis*, which appeared in early periods, and developed into towns but never into proper *poleis*, while Thisbe, far larger in extension, is a good example of a second-rank real historical *polis*. Besides, a long-term settlement approach would give emphasis to the occupation of the area especially in the Late Classical – Early Hellenistic period, as elsewhere in Boeotia, for rural infill of the countryside, as well as in the Late Roman period, which saw the flourishing of the harbour sites and of the long-distance trade routes, giving a central role to an apparently only marginal landscape (and probably from the LH period).

⁴⁰ The road from inner Boeotia came through the Steveniko pass (Agia Anna/Koukoura basin is therefore a crucial area, as well as ancient Thisbe and the Domvraina basin) – Philippson 1951: 458.

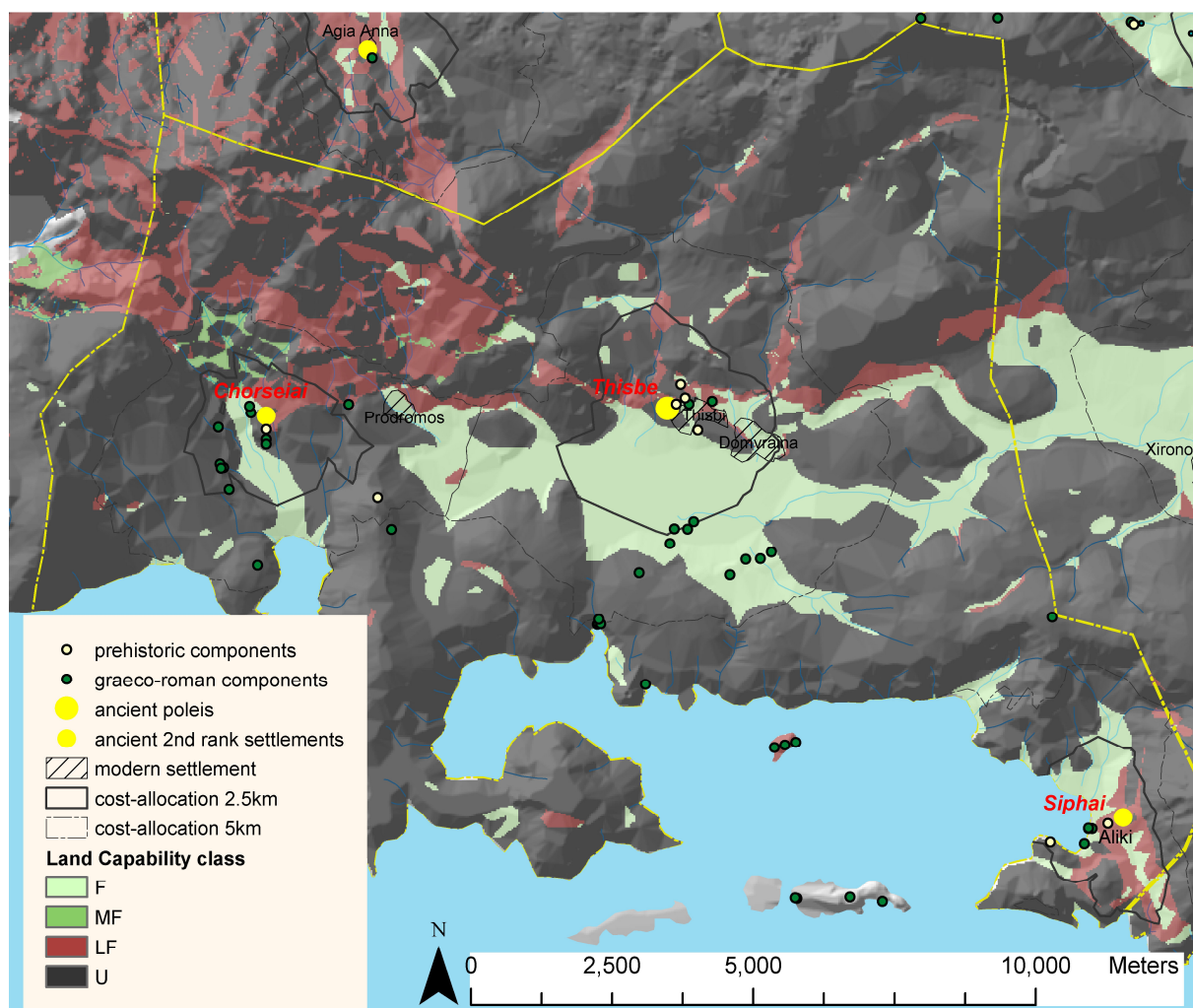


Fig.6. Map showing the Greco-Roman settlement network, the polygons resulting from the cost-distance analysis (marking half an hour and one hour walking time distance) and dots representing the known archaeological components (same as in fig.2), with land capability information underlain.

A few more words could be given to the area of Thisbe, where intensive field-by-field artefact surface survey has also been carried out (in 1979-80 – see above).

Thisbe, as noted above, is a good example of second-rank polis. “It played only a minor role in political and military developments but could, in favorable circumstances, assert its independence” (Gregory 1992: 19), as in the Hellenistic period for instance. Thisbe appears in the historical record in the Hellenistic period and in Late Roman times (Gregory 1992: 19). Its prosperity in the latter period has probably to be connected with the flourishing of the Vathy harbour site, belonging to the city and important for long-distance trade (see above).

As seen above, the Domvraia (or Thisbe) basin (another main economic resource of the city site) has been subject to inundation and alluviation throughout the centuries,

and into modern times⁴¹. During their survey, T.E.Gregory and his team carefully observed natural and man-made cuttings in different spots in the plain and they point out that the central part of the plain was apparently probably never densely inhabited, “either because it was too swampy or [...] because the land there was rich and had to be exploited for its agricultural potential.” (Gregory 1992: 32) Habitation, they note, seems to have concentrated in a broad band around the N, S and E of the plain, at elevations between 100 and 140m above sea level, and the population appears to have followed the course of the water-control device S of Thisbe (see above). A threefold settlement hierarchy seems to work in the Thisbe Basin: the urban area of Thisbe, the port of Vathy, the large rural agglomerations (*components GC_39 to GC_41; Thisbe basin C-1*), and isolated farmhouses or outbuildings (Gregory 1992: 33 – see

⁴¹ This could be the reason why the central area, on either side of the Permessos/Askris river, presents very low densities of surface material, although Gregory wonders how much the absence of settlement evidence is due to taphonomic reasons and how much corresponds to the actual situation (Gregory 1992: 32)

corresponding components above), providing the usual picture of the Boeotian countryside, mainly occupied in Late Classical-Early Hellenistic and Late Roman times.

Within the same settlement chamber, the village of Kakosi/Thisvi continues its central role through time (since the Byzantine period – see above) preserving its Greek population. At the beginning of the 20th century, the village still had several thousand inhabitants and the administrative status of a *dimos* (Gregory 1992: 19), while the plain, Gregory notes, was by that time largely devoted to the growing of wheat, and a customs house, at Ag.Ioannis testifies the use of this secondary port (more easily reached in modern times than Vathy, but already in use in antiquity – *component GC_30*)⁴². Today the village has shrunk considerably (300 people reported by Gregory), as the harbour lost importance (because of improvements to overland transportation and the opening of the Corinth canal).

⁴² By the village of Kakosi are the remains of a stone-built dam that used to lead the marsh water towards the S in order to facilitate communication with the Ag Ioannis harbour even in periods of significant rainfall (Philippson 1951: 458).