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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.3.1

### Central Helicon: Koroneiake

#### TOPOGRAPHICAL SETTING

At the SW corner of the Copais, to the SE of the Granitsa or ancient Laphystion, lies a bay of the Copais basin, which runs 6/7km inside the Helicon relief and coincides with the *chora* of ancient Koroneia<sup>1</sup>. The Northern edge of the Koroneia bay is defined by the Granitsa/Laphystion, running in a N-W direction, while the Southern edge is defined by the rocky ridge of Libethrion/Tilphousion, running in a S-E direction.

The bay penetrates the Laphystion and the Northern and Central ridge of Helicon (see chapter II.1). The inner part reaches a height of 400m before the mountain slope rises to the Palaiouvouna peak (1748m), while towards the Copais the level is ca 100m at the entrance to the valley, and the hills between range from 212 to 244m high, crossed longitudinally by the Pontsa valley and its tributaries. The fertile basin is not a plain (the elevation range of the Koroneia valley is higher than that of Levadeia) but a *Tafel* made of soft, young, tertiary deposits (Philipsson 1951: 449). It is composed mainly by the alluvial valley of the Pontsa river<sup>2</sup> and its tributaries. The land is very fertile and easily cultivable, both in the river valleys and in the non-flooded area at the entrance of the basin (see below), with a very rich cultivable soil. A ridge (Megalo and Mikro Butsurati) runs along the central axis of the basin and separates the larger Pontsa valley from the narrower valley of the smaller stream, Kakaris, which runs parallel to it (see map in fig.1)<sup>3</sup>.

Davidson's map<sup>4</sup> reports fertile alluvial deposits from a river and not from the lake, in the area where the Phalaros/Pontsa river and the Kyarios/Kakaris river<sup>5</sup> flow into the Copais. Whilst the Herkyna river used to flow from Levadeia into the Copais basin with a delta (therefore giving the area a marshy character), one might suppose that the Phalaros and Kyarios did not create a delta, so that the surrounding area was more fertile due to

their regular deposits. During visits to the area it was noted that the Phalaros and Kyarios outlets were characterised by less marshy and more alluvial deposits than the Herkyna outlet into the basin. Today the Kephisos is channelled and takes all the water from springs and streams flowing into the Copais. Only a small marshy area is preserved by Rachi (Philipsson 1951: 474)<sup>6</sup>.

As for traces of ancient landscapes, in the area of Agia Triada there is still a forest of oaks - a residue of the original Holocene woodland on the Helicon mountain.

As Kirsten (in Philipsson 1951: 670) noted, the landscape in the S and SE Copais is much more remote than other areas bordering the lake. Here the continuation of the projection of the Helicon mountain (Laphystion – Tilphousion) allows only narrow passes to the edge of the lake. The natural obstacles characteristic of the area made it a suitable choice for a battlefield in ancient times<sup>7</sup>.

The ancient *polis* of Koroneia was located close to the edge of the large plain, between the Pontsa valley to the NW and the valley of a parallel stream (Kakaris)<sup>8</sup> to the SE, and lay on the final spur of the low ridge Mikro and Megalo Butsurati (mentioned above), crossing the basin longitudinally in a NW direction for ca. 4km (fig.1 and fig.2).

<sup>1</sup> Kirsten (1951: 670) writes of '*polis landscapes*' for the Boeotian *chorai*, and then characterises as '*gulf landscapes*' the *poleis* gravitating on Copais.

<sup>2</sup> The Phalaros/Pontsa river was, according to Philipsson (1951: 474), totally dry in summer. Today one can still see water running along its course in high summer.

<sup>3</sup> The general description of the area is based mainly on Philipsson 1951: 449f and Lauffer Kopais I: 76, with personal observations added.

<sup>4</sup> For a reference to the map see chapter I.2.1.

<sup>5</sup> See reconstruction of the river in Knauss et al. (Kopais 3, plan 2.13).

<sup>6</sup> A marshy zone, formed mainly by the Herkyna river outlet, extended to the W of the Copais lake water, by the modern villages of Ag.Dimitrios for ca. 5 km. up to the foot of Laphystion near Rachi (Philipsson 1951: 473 – see fig.13). This marshy area formed a dangerous zone between the plain of Kephisos and the plain to the S edge of the basin, through which the main road ran. This marsh probably played host to the battles of 85 BC - Mitridates *versus* Silla - and 1311 - Frankish cavalry *versus* Catalan soldiers (Philipsson 1951: 473). It is also marked in the GYS 1:50,000 map (*Lebadeia* sheet) and in the 1:200,000 Boeotia *nomos* map. It was probably semi-independent from the lake's fluctuations, and its permanent marshiness (even after the drainage) is due to other factors.

<sup>7</sup> Two important battles took place in front of ancient Koroneia in 447 and 394 BC.

<sup>8</sup> There is a question regarding the identification of the Pontsa or Kakaris river with the ancient Permessos (Lauffer Kopais I: 80-1), though the river Pontsa should probably be identified with the ancient Phalaros (Fossey 1988: 323 and others), and Kakaris with Kyarios. The Triton stream should probably be identified with the small stream by Solinari village (Papachatzis 1981: 214 n.6).

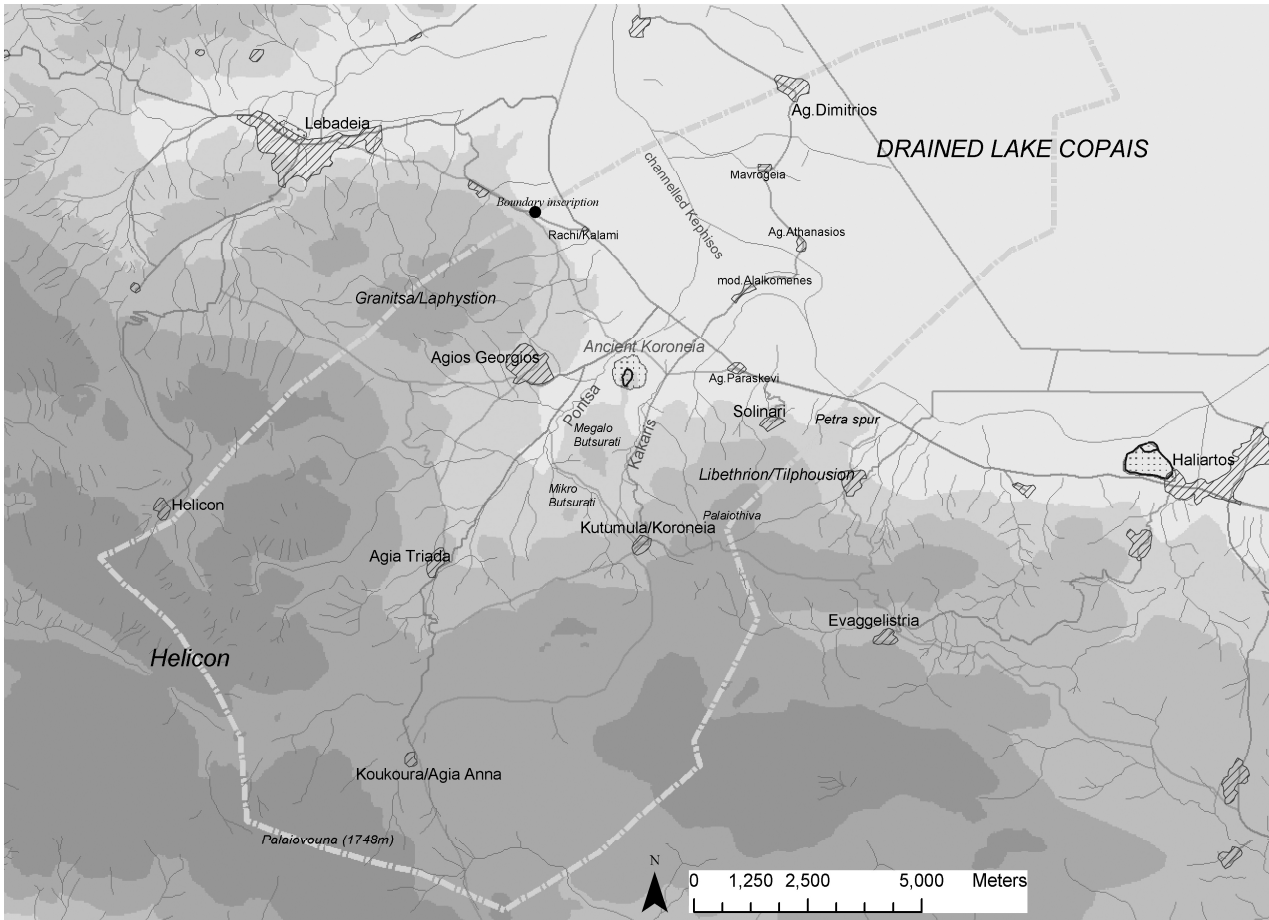


Fig.1. Topographical setting of the chora of Koroneia.

### Boundaries

It is clear from the topographical introduction and a glance at the map (fig.1), that the *chora* is clearly defined by natural borders, being a lateral bay of the Copais basin surrounded by mountains to the W (NW – Granitsa/Laphystion ridge<sup>9</sup>), to the S (Helicon Palaiovouna ridge, rising up at the very end of the valley, beyond Stevenikon/Agia Triada), and to the E (SE – Libethrion/Tilphousion ridge or Palaiothiva/Vigla ridge). A boundary inscription [AE1671] has been found at the NE foot of the Granitsa/Laphystion ridge<sup>10</sup>, not far from the church of Agios Ioannis<sup>11</sup>. It would have marked the boundary between Koroneia and Levadeia.

Another boundary inscription [AE1108] was found in an ancient dyke in the Copais basin<sup>12</sup>. According to Fossey

(1988: 501), it would have marked the boundary between Koroneia and Orchomenos.

At some time probably in the Archaic period,<sup>13</sup> the natural Southern border, the narrowest part of the valley before the start of the slopes up to the peak of Palaiovouna (1748m), was extended beyond the Stevenikon area to include part of the Koukoura valley, when the small upland plateau of Koukoura/Agia Anna, considerably high up in the Helicon massif (attempts to identify it as the territory of ancient *Hippotai* have been made – Fossey 1988: 339; Roesch 1965: 53) was split between Koroneia and Thisbe (Fossey 1988: 337), as stated by an inscription (IG VII 1870)<sup>14</sup>. This area is a natural crossroad for the main mountain routes through Helicon, as noted by Fossey (1988: 339 and 1990: 205-7), and earlier by Pritchett (V 1985: 156) – see fig.1 in chapter II.1.

To the N and E, the boundary was provided by the Copais lake and marshes. Examining the actual extension of the

<sup>9</sup> Fossey remarks (1988: 337) that Granitsa in the Slavic languages means ‘frontier’ (Kretschmer, Glotta 1914: 265).

<sup>10</sup> The inscription [AE1671] is reported in SEG XXIII 297; SEG XXXV 406; Vollgraff BCH 1902: 570; Roesch 1965:61-3. The find spot is marked on fig.4 in Camp II (see fig.1).

<sup>11</sup> For a discussion of the N boundary see Fossey 1988: appendix IV.3

<sup>12</sup> Inscription [AE1108] was found in ancient dyke at Dodekakleidi about 0.5km N of Xinós. Fossey (1988: 501) saw it in the garden of Charalambos E. Alambasis at Ag. Dimitrios. A tall, slender block of grey limestone, square in cross section, roughly shaped. 106.0 (h) x 34.0 (w) x 35.0 cm (th). A smoother

band, 9.2 cm broad and containing the inscription, runs across the front of the stone: “OROS” (2<sup>nd</sup>-1<sup>st</sup> centuries BC).

<sup>13</sup> This would match with the interpretation of the Archaic period as age of expansion in Boeotia (cf. Bintliff 1994 and chapter III.2).

<sup>14</sup> Fossey considers the case of Koukoura/Agia Anna separately (1988: 339ff). I have included a discussion of the site and the area in this chapter (see below).

### II.3.1 KORONEIAKE

lake (see fig.1 and below), there was a wide non-flooded area at the entrance to the Koroneia basin, whilst the marshes came closer to the edge at the Petra spur (SE), as noted by Leake (1835: 137 - see fig.1). To the N, at the foot of the Granitsa/Laphystion ridge, in the area of Rachi/Kalami, a permanent marshy area is known (see above, footnote 6), and reported by many travellers and Philippson (1951: 474).

The *polis* territory was called *Koroneia* (Thucydides I 113.2) or *Koroneiake* (Strabo IX 2.19, 28 - Hansen 1996)<sup>15</sup>.

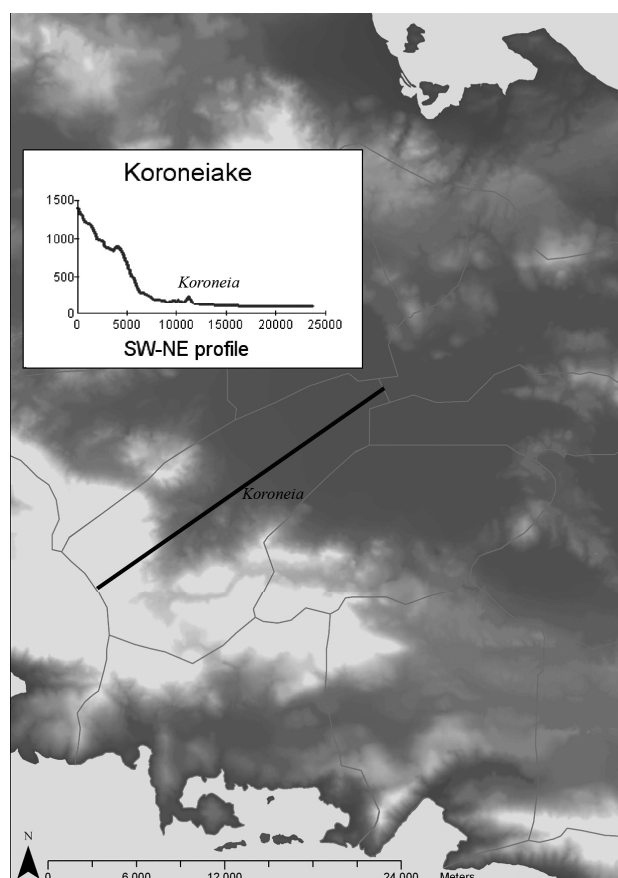


Fig.2. Longitudinal section of the chora of Koroneia, with the polis spur at the end of the Butsurati ridge visible, in front of the flat area at the entrance to the valley.

#### PHYSICAL LAND UNITS

Half of the *chora* can be described as mountainous (above 600m). This is due primarily to the presence of the Helicon massif in the SW part of the *chora*, as well as the higher part of the two ridges radial to Copais closing the Koroneia basin to the N and the S. The hilly landscape is

composed predominantly of the slopes of these N and S ridges and the central ridge of Butsurati, at the end of which ancient Koroneia lies. The plain (lowland) of the valley itself is quite small, compared to the much more open Levadeia basin (see fig.2 in chapter II.1). On the other hand, the percentage of plain landscape, including the portion of the Copais basin available, increases immediately in front of the ancient *polis*, and probably extending quite far into the basin itself (see digital reconstruction of lake fluctuations in fig.10).

<i>Hilly landscape</i>	20.7%
<i>Mountainous landscape</i>	44.9%
<i>Plain</i>	34.4%

1	P1_P2	lacustrine basin, valley	31%
2	P3	gentle slope	0.9%
3	P4	foothill	2.4%
4	H1	plateau	5.2%
5	H2	gentle slope	0.3%
6	H3	moderate slope	2.8%
7	H4	severe slope	6.9%
8	H5	very severe slope	5.6%
9	M1	plateau	9.5%
10	M2	plateau/gentle slope	5.6%
11	M3	moderate slope	14.6%
12	M4	very severe slope	15.2%

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

Lacustrine basins and valleys (P1\_P2) are the predominant features in the plain landscape, constituted mainly by the Copais basin and its edge, and only in small part by the end of the Pontsa and the Kakaris stream valleys and their outlets into the Copais basin.

Foothill landscape (P4) characterises the area immediately below and following the heights marking the shape of the valley.

The site of the ancient *polis* of Koroneia lies on the flattish top (H1) of quite a steep spur (P4) at the end of the ridge crossing the basin longitudinally and constituting part of the hilly landscape of the *chora*. The hilly segment is marked by quite a strong presence of plateaus (H1), considering the total area assigned to this section of the *chora* landscape. In particular, plateau features characterise the gently sloping slopes of the Northern ridge bordering the area, as well as the area at the end of the Phalaros/Pontsa river valley. On the other hand, the central ridge (at the end of which lies ancient Koroneia), the higher areas of elevation surrounding the basin, as well as the outer slopes of the rocky ridge of Libethrion/Tilphousion are marked by a steeper morphology (H4, H5).

The central Butsurati ridge ends at its SW, and leaves space for an opening constituted by the lateral valley of a tributary of the Phalaros/Pontsa, through which the two valleys (Pontsa and Kakaris) joined at the back of the valley, before the elevation increases following the slope of Helicon (as clearly visible in the topographical layer in fig.1).

<sup>15</sup> According to the sources, it comprised *Hermaion* (a valley), *Metachion* (a fortress between Koroneia and Orchomenos) (Ephorus [FGrH 70] fr. 94a), and the sanctuary of Athena Itonia (Strabo IX 2.29; *Scholia* Apollonius Rodius 1.551a) – Hansen 1996: 90.

Helicon is characterised by the presence of smaller or larger upland plateaus (M1). Within the Koroneia *chora*, a quite recognisable mountain plateau stands out towards the S: the Koukoura/Agia Anna plateau (see this chapter – *passim* and especially *component KO\_13*).

## RESOURCES

A map showing land capability (for agriculture – see chapter I.2.1) for the Koroneia area can be seen in fig.14. The *chora* landscape is characterised by fertile and arable land suitable for agriculture, in and at the edge of the Copais basin, as well as in the river valleys (class 1 – F). The Eastern Pontsa river valley covered by alluvia is larger, longer and more articulated (with its lateral tributaries) than the valley of the Kakaris stream, to the W side of the ancient city site. The site of the ancient *polis* of Koroneia occupies a neat boundary between two contrasted landscapes both fertile; the hillland and the Copais edge lowland. A fertile area covered with good arable soil can also be found on the upland plateau of Koukoura/Agia Anna. On the other hand, class 2 (MF)

covers almost the whole of the hilly landscape, creating a large cultivable area available up to a height of 600m. The plateau and gentle slope features recognised (see above) in the hilly segment of the landscape are therefore potentially suitable for agriculture. Areas belonging to class 3 (LF) are mostly suitable for grazing, considering their elevation and slope (mainly M3 and M4).

As noted by Fossey (1990c), the concern to save agricultural land from flooding evidenced in the 2<sup>nd</sup> C AD (text from Hadrian, 125 AD – setting up of dikes to channel the rivers flowing into the SW Copais, in order to stop them flooding good agricultural land) suggests that crops were the main economic resource of this valley in Roman times, as they are today.

A resource also available to the *chora* is the lake itself, with the parallel forms of economy it can offer (see below and appendix III).

Quarrying was probably also available. Traces of an ancient quarry (*component KO\_88*) for building materials have been noted on the ridge constituting a lower spur of the Eastern Laphystion ridge.

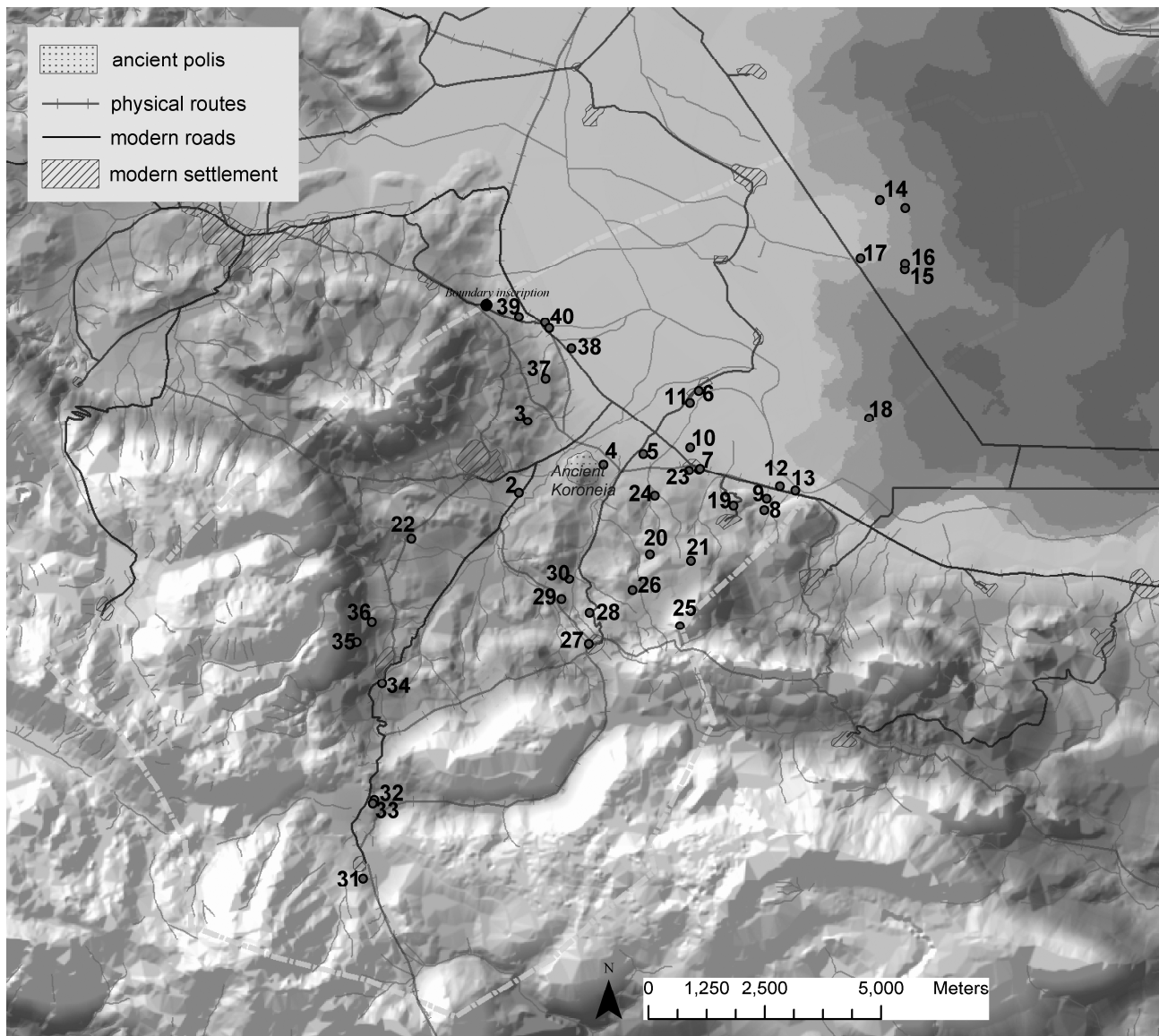


Fig.3. Archaeological map of Koroneiaka chora.

## THE ARCHAEOLOGICAL RECORD

1	PALAI A KORONEIA	Components KO_1 to KO_10
2	Ag.Athanasios	Component KO_92
3	Ag.Georgios – Xerokamara	Component KO_87
4/5/6/7	ITONION	(4) Components KO_14 and KO_16 to KO_19; (5) KO_83; (6) KO_33 and KO_34; (7) KO_41
7	Agoriani/Ag.Paraskevi	Components KO_40 and KO_41
8	ALALKOMENAI	Components KO_21; KO_24 and KO_25
9/10	Sanctuary of ATHENA TRITONIA/ALALKOMENIA	(9) Components KO_63 and (10) KO_84
11	Mamoura/Alalkomenai	Component KO_35
12	Solinari – National Road	Components KO_93 and KO_94
13	Solinari Agios Ioannis	Components KO_27 KO_27 and KO_28 (Tilphousion?); KO_29
14/15	Ag.Dimitrios East	(14) Components KO_11 and KO_20; (15) KO_70
16	Xinos	Components KO_65 to KO_72
17	Xinos	Components KO_64
18	Petra – Triton	Components KO_73, KO_74 and KO_85
19	Solinari	Components KO_22 and KO_26
20	Solinari - Agios Ioannis	Component KO_82
21	Solinari - Agia Paraskevi	Component KO_30
22	Pontsa - Agioi Taxiarchoi	Components KO_31, KO_32 and KO_61
23	Agoriani-Dekedes	Components KO_36 to KO_39 and KO_12
24	Solinari – Kaminia	Components KO_86
25	Paliothiva	Component KO_80
26	Tsoroko – Ag.Paraskevi	Component KO_81
27	Kutumula/Koroneia - Ag.Taxiarchoi	Component KO_75
28	Kutumula/Koroneia - Ag.Giorgios	Component KO_76
29	Koroneia – Kaminia	Component KO_77
30	Butsurati	Components KO_78 and KO_79
31	Koukoura/Agia Anna	Component KO_13
32	Milia	Components KO_49 and KO_50
33	Milia S	Components KO_95 and KO_96

34	Agia Triada – plateau	Component KO_59
35	Agia Triada cave	Components KO_51 to KO_58
36	Agia Triada	Components KO_60
37	Triapi	Component KO_88
38	Magoula Kalami	Components KO_89 and KO_90
39	Kalami – Lioma	Components KO_42 to KO_47
40	Kalami/Rachi	Components KO_48, KO_62 and KO_91

Table 2. List of archaeological components and activity loci mapped in fig.3.

Rescue excavations were, on several occasions, an unbiased way of discovering archaeological remains, independent of personal research interests (see chapter II.2). For instance, in 1994, works for the *Agogos Physikou Aeriou* (gas pipeline), running from NW Boeotia to the area of Thebes, brought to light significant archaeological remains (Aravantinos, AD49 1994: 284-286). The same is true of road and railway constructions, especially at the foot of the Petra mountain and in the Kalami area.

The Koroneia *chora* is particularly rich in available archaeological information, especially considering the absence of intensive and systematic surface survey. The lower area, between the city site and the immediate border of the basin, and the basin itself in front of the Koroneia valley, was investigated by accurate survey work by the German team of Knauss et al. (thematically oriented to evidence by the edge of the former lake Copais in order to examine the water level fluctuations - Knauss et al Kopais 3)<sup>16</sup>. In addition, the areas immediately bordering the basin, as well as the whole valley and the inner ridges, were intensively covered by Lauffer within the framework of his research work on the areas surrounding the Copais lake (Lauffer Kopais I)<sup>17</sup>. The Koroneia *chora* probably belongs to the areas that Lauffer visited more carefully and actually walked through thoroughly. Consequently, not only has the archaeological record available for the area increased, but, even at the scale of our work, the evidence is much more accurately located, allowing us to proceed to further analysis involving different datasets.

The graph (fig.4) illustrates the proportion of components discovered within different research frameworks as far as the Koroneia *chora* is concerned.

The quite significant presence of ‘Other’ entries (see chapter II.2) is due mainly to the fact that due to personal

<sup>16</sup> For the limit and the excellent aspects of their work see also chapter II.2.

<sup>17</sup> For the limit and the excellent aspects of his work see chapter II.2.

interest in, and frequent visits to, the well known Prehistoric sites at the edge of the Copais basin, traces of activities from historical periods were also found. The high percentage of 'Personal or group research interest' is due to the intensive research carried out in the Copais and at its edges by Knauss' German team (with a special interest in the area of Copais located in the

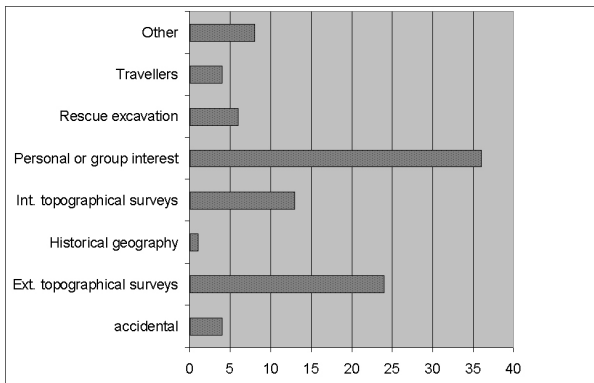


Fig.4. Graph illustrating the proportion of components discovered within different research frameworks.

Koroneia *chora*), and to the personal interest of scholars compiling Prehistoric gazetteers on the sites at the edge of Copais.

'Rescue excavation' entries are limited in presence, and are represented especially by the excavation work carried

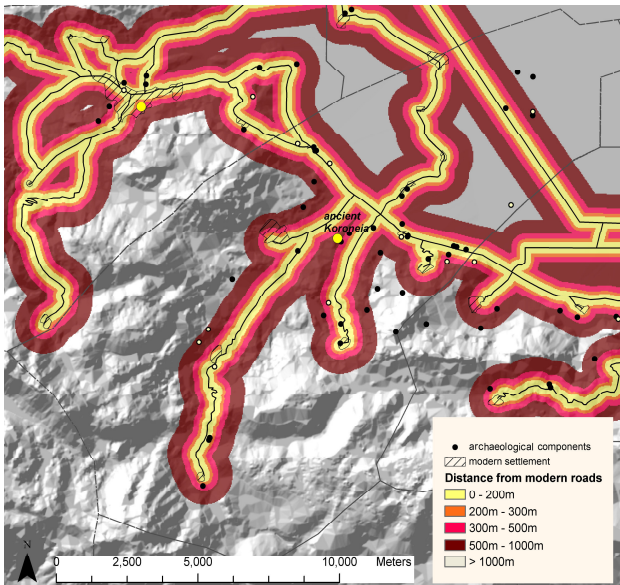


Fig.5. Relationship between components and the modern road network.

out along the road at the edge of the basin in the 1990s.

The ratio of Prehistoric to Greco-Roman components known is 25 to 66 (1:2.6), while among the historical periods, 43% are dated Archaic to Hellenistic, 27% Roman-Late Roman, and 30% are attributed to the general Greco-Roman period.

In fig.5 we can see the relationship between known archaeological sites and distance from the modern road network (30 of 96 components within 300m; 39 within 500m). Considering that of the remaining components (further from the road), almost 20 relate to ancient Koroneia and immediate surroundings. We may conclude that research has generally been quite biased by proximity to modern roads, especially as for the route along the edge of the Copais basin. Although this can be linked to the fact that the line was also used as a communication route in the past, we should be aware that in certain periods of history, probably the most preferred route was the inner one through the mountains (see fig.3).

For the Koroneia *chora*, we can observe an increase in the number of 'sites' when comparing the resulting map (fig.3) with Fossey's map of the area (1988: 322, fig.44). This is mainly due to the fact that there is a gap of almost 20 years between them; two decades of road construction and other infrastructure work, and therefore of rescue excavation, as well as years during which two major projects have been carried out: Lauffer (Kopais I), and Knauss et al. (Kopais 3), the first only mentioned briefly by Fossey 1988 in the *Addenda* section.

## ANALYSIS OF THE CHORA LANDSCAPE

### PREHISTORIC PERIOD

For the *chora* of Koroneia, we do have archaeological evidence reported for all the broad Prehistoric periods under consideration: Neolithic (fig.6), EH (fig.7), MH (fig.8) and LH (fig.9). The available archaeological record also includes three pieces of evidence generally datable to the Prehistoric period: a settlement (*component KO\_89*), an unspecified but sure activity focus (*component KO\_79*), and a single piece of evidence indicating human presence (a few flints noted during extensive survey work - *component KO\_23*).

The location, physiographical character and type of evidence of this *component KO\_23*, a very small ridge at the very foot of the hills below Solinari, is very close to that of the other surface concentration of flints found in the Levadeia *chora* (see chapter II.3.2 - *component LE\_22*).

The knowledge on the prehistoric landscape of the area at the immediate edge of the Copais basin is constituted mainly by two known Early and Middle Helladic large settlement sites, Agoriani-Dekedes (*components KO\_36 to KO\_39*) and Kalami-Lioma (*components KO\_42 to KO\_45*). Apart from these Prehistoric sites gravitating towards the basin, other evidence from the Prehistoric period is known from the upland of the *chora*, by the modern village of Agia Triada, above the road towards the Koukoura/Agia Anna plateau and pass. There, apart from Neolithic evidence from the cave above the village of Agia Triada (*component KO\_51*), EH activities are known from the cave (*component KO\_52*), on a plateau within the village (*component KO\_59*), and along the road (*component KO\_60*), and MH is also reported. According to the excavation report on the work by the cave (AReports 2000-2001: 56), these activities should

probably be linked to the development of pastoral activities between the end of the EH and the beginning of the MH period. The so-called 'secondary product revolution' saw an increase in the number of flocks in order to produce wool and cheese/milk in addition to meat, and led to the use of and dwelling in a part of the landscape otherwise neglected because of its limited agricultural usefulness. It was probably used at an earlier stage for other, non-permanent activities / temporary purposes, such as hunting and gathering.

In fig.7, one can see the windows (lowland and upland) where the Early Helladic landscape appears. The concentration of knowledge of the EH period in the small area of Agia Triada is curious. It could either be the accident of a landscape window more carefully examined (due to the presence of the cave site), or it could be a landscape window actually more intensively occupied in a certain period (probably corresponding to the secondary product revolution),<sup>18</sup> and for which the occupation left traces still visible in the landscape (probably also because of a rather low level of activity during later periods). In the intermediate area (coinciding with the hilly segment of the landscape), the Prehistoric landscape is less known, and one cannot state with certainty that EH life was concentrated in these archaeologically better known areas. On the other hand, the presence of the lake and its resources (see chapter III.1) in the case of the lowland activity foci, as well as the available pasturage in the case of the upland foci, could give value to the archaeological record available, as well as a meaning in terms of landscape. Generally speaking, locations on low hills seem to be preferred in this period, as attested by the two settlement sites at Agoriani-Dekedes (*component KO\_37*) and Kalami-Lioma (*component KO\_43*) at the edge of the Copais. Though, this could also be due to a bias in knowledge affected by the proximity to roads and by prominent positions over the basin. Adding to the picture the components generally datable to the Prehistoric period, an activity focus (*component KO\_79*) appears in the hilly intermediate area, just below the modern village of Koroneia, on the other side of the Kyarios/Kakaris stream valley; probably on an old river terrace.

A very partial knowledge of the archaeological landscape biases also the Middle Helladic period, though in this period the available archaeological picture is enriched by the German team's research within the Copais basin (mainly Knauss et al., Copais 3). Evidence of MH occupation is also known within the Copais basin, with at least one activity focus that could be interpreted as an area of habitation (we cannot say if temporary or permanent on the basis of the available information). These were probably linked with the exploitation of the lake's resources as well as with vicinity to water (see chapter III.1).

From the available record, the LH picture of human occupation in the Koroneia *chora* would look similar to that of the MH period, though for the site of Kalami-Lioma the LH presence seems reduced and of less certain character compared to the previous periods. On the other hand, once again one ought to say that any comment can be only hypothetical, as we must be very cautious in the interpretation of these periods for which only poor datasets are available and which can be biased by several factors (proximity to modern roads, prominent locations), even stronger than data available for later periods.

Looking at the available Neolithic archaeological record, we should also consider that the resulting picture appears very similar to that from the mapping of evidence from later prehistoric periods, due to an evident bias in knowledge. Neolithic was found where research was carried out on sites with later occupation<sup>19</sup>. The activity foci known for the plains are related to Copais life (see chapter III.1), just as the habitation sites and activity foci of later Prehistoric periods. On the other hand, the signs of FN/EH occupation (excavated burnt layers) brought to light at the Agia Triada cave site (*component KO\_51*) must be linked with activities in the upland landscape before the specialisation of pastoralism. These activities could be hunting, or the raising of flocks for meat, and occupation of the cave could have been either temporary or permanent, and of course because it is a natural shelter.

<sup>18</sup> The EH period is marked by an expansion of settlement into relatively marginal landscapes, almost certainly facilitated by the diversification of agricultural strategies and an increased reliance on pastoral production (Halstead 1987; Whitelaw 2000). In the Koroneia area we could imagine at this time an increased interest in the mountain areas, rich in water and grazing land.

<sup>19</sup> The appearance of Neolithic is usually in deeper strata of an excavated site, or on the surface together with later material in larger quantities.

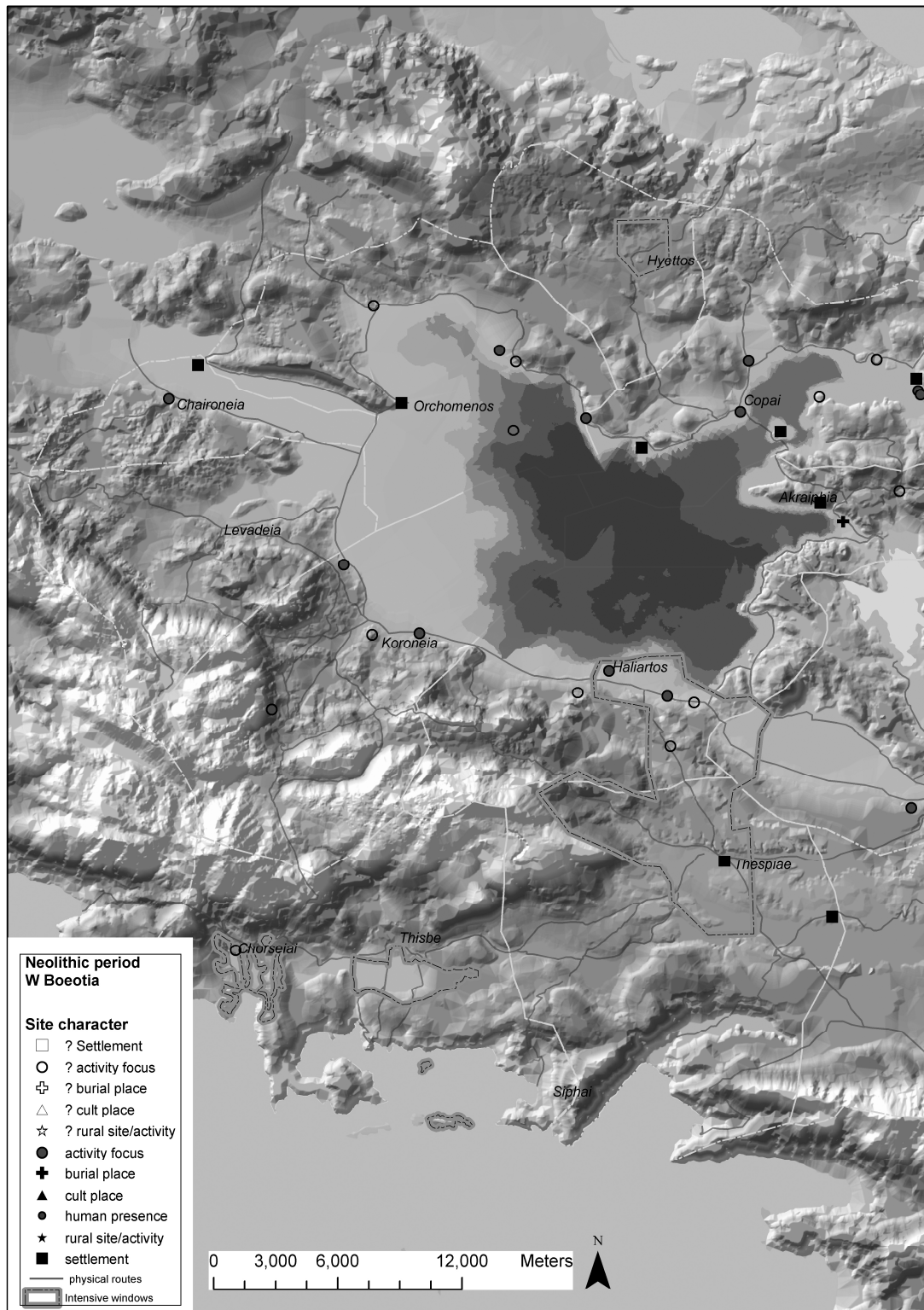


Fig.6. Neolithic map of W Boeotia

## II.3.1 KORONEIAKE

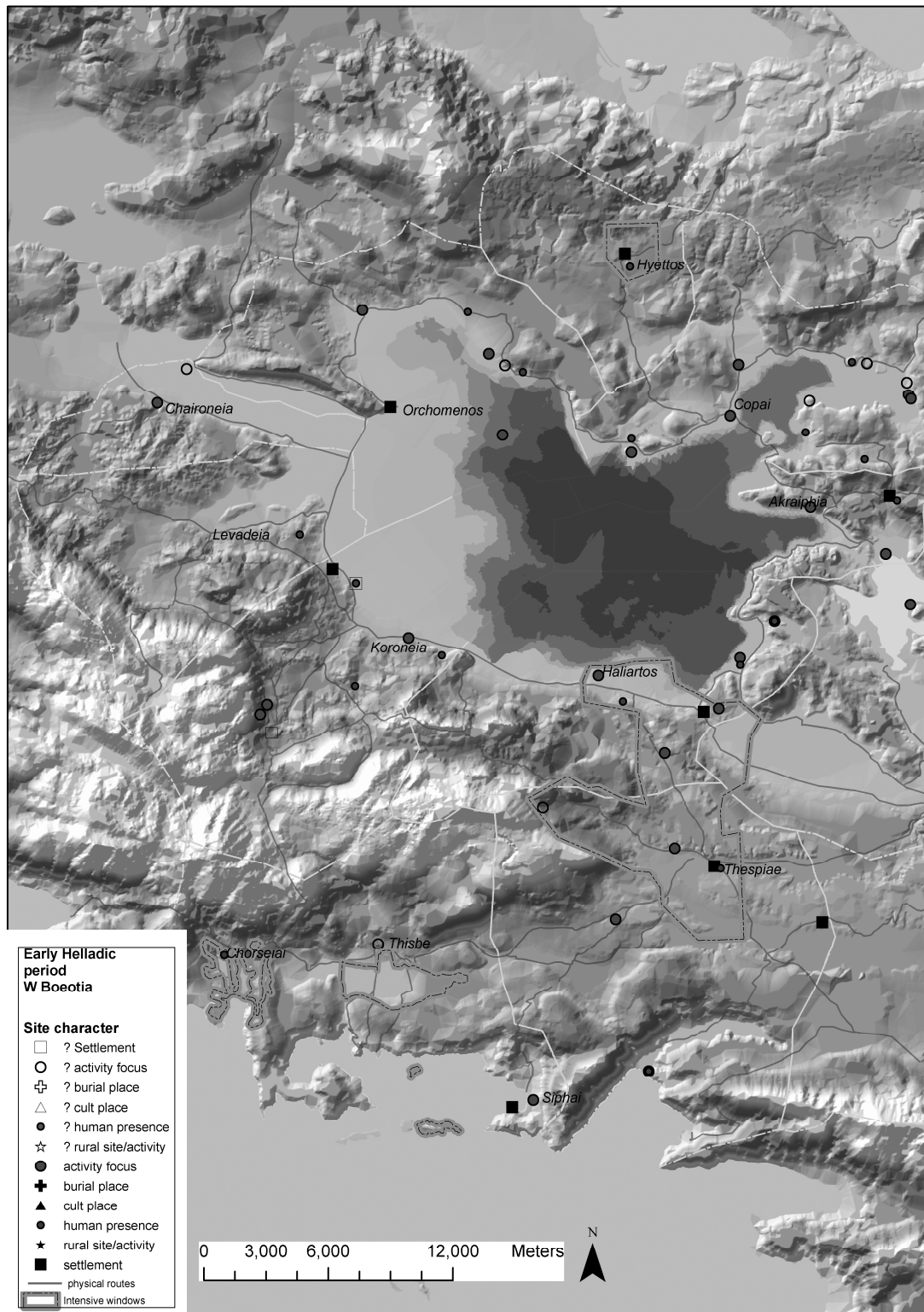


Fig.7. EH map of W Boeotia

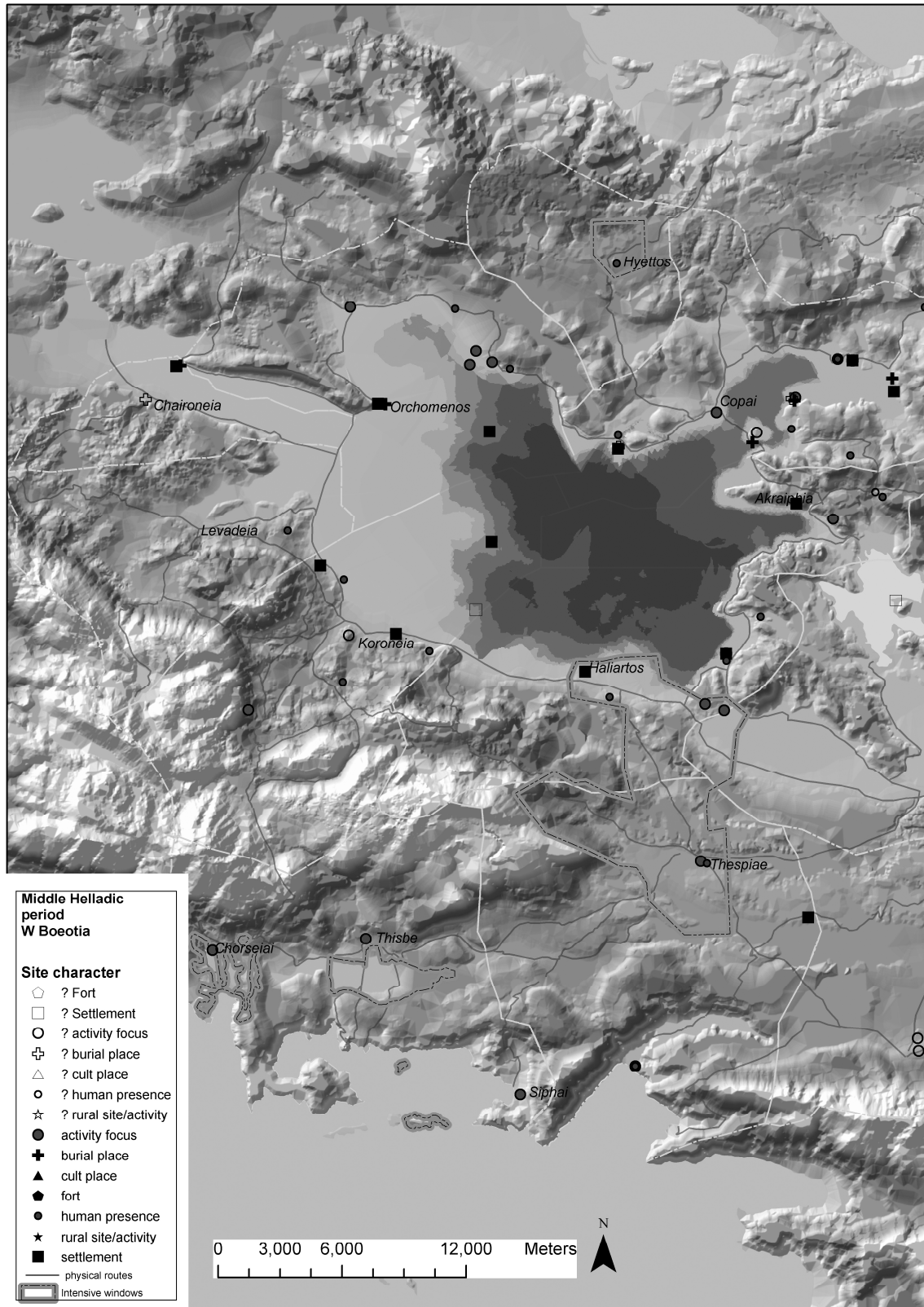


Fig.8. MH map of W Boeotia

II.3.1 KORONEIAKE

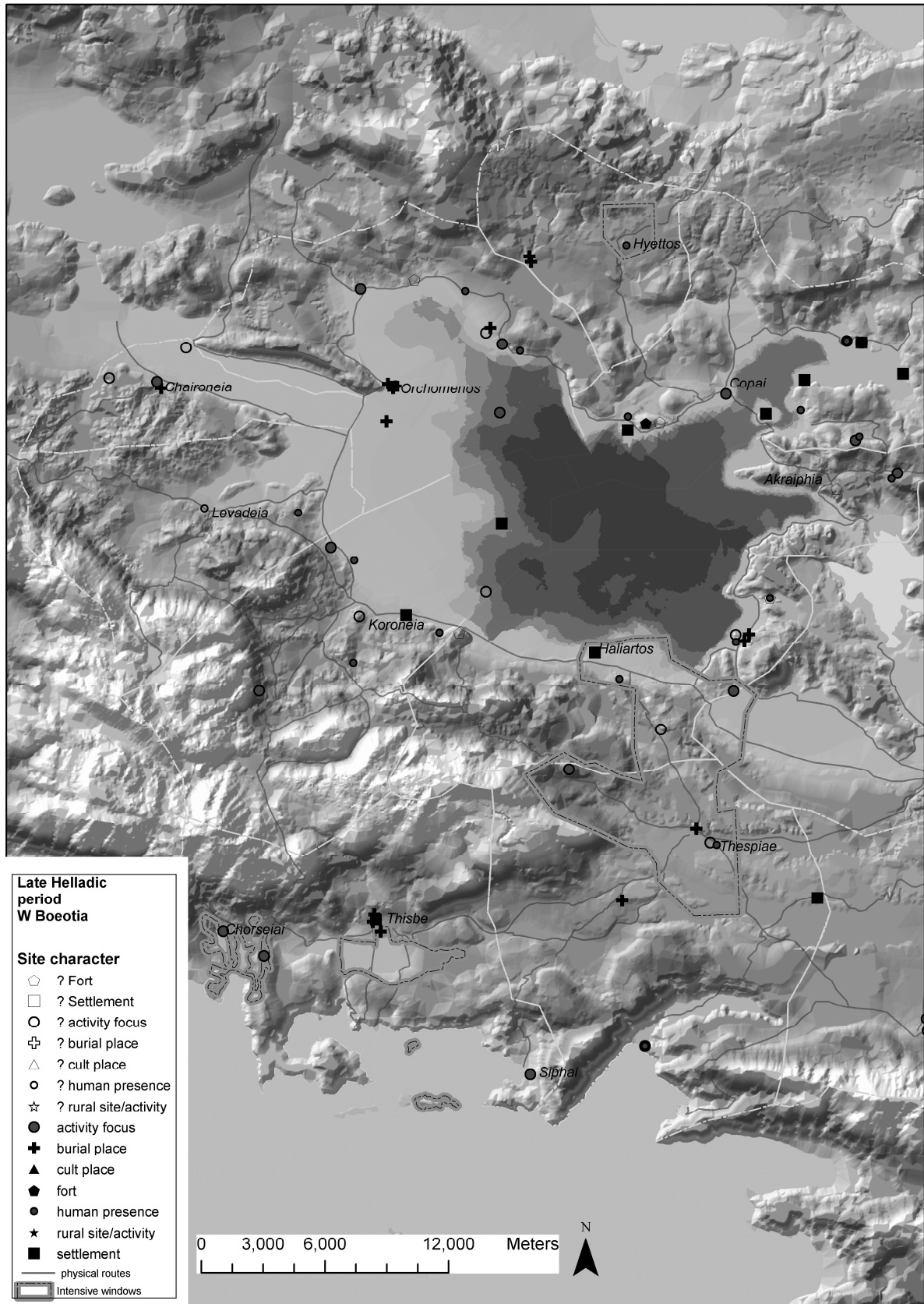


Fig.9. LH map of W Boeotia

GRECO-ROMAN ANTIQUITY<sup>1</sup>**Town level**

The ancient *polis* of Koroneia was located, as seen above, in the centre of the opening of the valley. The ancient *polis* of Koroneia lay in a backward position compared to the passage of the peri-lacustrine road, but was visible from it and could control the crossroads of the main route crossing the whole of Boeotia (Thebes-Levadeia), following the Southern edge of the Copais basin, and the routes to inner Helicon (see fig.1 in chapter II.1). The ancient *polis* was located close to the edge of the large plain<sup>2</sup>, between the Phalaros/Pontsa valley to the NW, and a parallel stream (Kyarios/Kakaris)<sup>3</sup> to the SE, on the final spur of the low ridge Mikro and Megalo Butsurati (mentioned above), crossing the basin longitudinally in a NW direction for ca. 4km (fig.1 and fig.2). Surface sherds (whose density on the ground is incredibly high, especially in some areas) indicate the presence of an urban settlement there since the Geometric period (*components KO\_1 and KO\_5 to KO\_8*), and excavations conducted on the acropolis' E slope attest the presence of the Roman agora as well as structures indicating a Late Roman settlement and cemetery (*components KO\_9 and KO\_10*). The city knew periods of favour (especially in the Roman Imperial period) and decline (VI and II C BC)<sup>4</sup>.

**Village level**

At least one satellite settlement is known for the *chora* of Koroneia from ancient sources: ancient Alalkomenai (see *components KO\_21, KO\_24, KO\_25*). There have been various attempts at identifying archaeological remains with this ancient *polichni*, as mentioned by Pausanias (see Alalkomenai *components*)<sup>5</sup>. What is of interest here is that a settlement at the village level existed since at least the Classical period (and probably earlier), and probably continued its life until the Early Roman period. It was located to the E of ancient Koroneia at the Eastern edge of the *chora* (by its physical limit: the rocky spur of Petra), and its settlement chamber was comprised of a very small valley, which the site overlooks, between ancient Alalkomenai and Tilphousion (see dedicated *components*), and protected from flooding (see fig.3). Evidence has been found attesting the presence of a Classical, Hellenistic and Roman focus, probably a settlement site, at the entrance to the small valley. Alalkomenai could easily represent a case like Askra, of a proto-*polis* which never had the strength to become a *polis* (chapter II.3.9).

<sup>1</sup> Period maps are included in chapter II.4, figs.17-19-21-23-25-27.

<sup>2</sup> The city occupies a neat boundary between two contrasted landscapes both fertile, the hilland and the Copais edge lowland, as often happens for the Boeotian city sites (see also Levadeia, for instance – chapter II.3.2).

<sup>3</sup> For the identification of the streams see Lauffer Kopais I: 80-1; Fossey 1988: 323 and others (see above *passim*).

<sup>4</sup> For details see appendix I.1 (PALAIA-KORONEIA).

<sup>5</sup> Reported under the site entry in appendix I.1 is the discussion of the various identifications.

Another Greco-Roman settlement was probably located in the upland plateau of Koukoura/Agia Anna and attempts have been made to connect this with ancient *Hippotai*, probably occupied only in Classical-Hellenistic times (*component KO\_13*).

An inner location at the back of the valley would be a place suitable for a potential village (or large rural settlement) site, and the grazing areas above were probably held by a rural occupation whose characteristics we still lack (see below - *rural segment*). Though Lauffer would suggest the presence of another Greco-Roman village settlement in the area of the modern village of Kutumula/Koroneia (mainly on the basis of *component KO\_76 and KO\_77*), the evidence is still weak and could relate to another kind of activity focus rather than a settlement site (see below – LONG TERM SETTLEMENT TRENDS).

**Rural segment**

The parts of the fertile (F) areas covered by alluvia, and of the MF slopes covered by flysch closer to the city, were probably farmed by the inhabitants of ancient Koroneia, while areas further distant, as well as landscape zones suitable for agriculture in the inner valleys, would have been farmed through a system of farmsteads (some temporary, some permanent) as in other Boeotian rural areas (see examples in Thespieae, Tanagra<sup>6</sup>). In the outer *chora*, beyond a 2-2.5 km radius from the city<sup>7</sup>, the landscape would likely have seen the presence of hamlets and villages, in addition to farms.

Zones suitable for grazing were also available, especially in the inner parts of the valley and on the steeper slopes of Helicon, as well as on the rocky areas of the ridges (especially the Tilphousion/Lybethrion ridge, towards its E spur), and these landscapes would therefore have been covered with sites linked to these activities.

Most of the information about this segment of the landscape is lacking, mainly due to a lack of intensive field-by-field surface research. Conversely, for the Koroneia *chora*, the work of Lauffer (Kopais I) provides information on a few rural or other activity (industrial) foci within the *chora* (*components KO\_78, KO\_86, KO\_87?*). *Component KO\_78* on Butsurati ridge can be considered with certainty to be a Classical farm in the environs of ancient Koroneia, exploiting the territory nearby (higher hill area, inner valley, good for slope agriculture and probably also a suitable starting point for taking sheep to graze on the upland plateau in the summer). *Component KO\_86*, in the vicinity of Kaminia (by Solinari), immediately to the S of the confluence of two small creeks, could also be interpreted as a rural site (Roman?) in considering both the position of the site and

<sup>6</sup> For this, see for instance Stissi 'The Archaic to Hellenistic Pottery' in Bintliff et al. 2008 for Tanagra, Bintliff-Howard-Snodgrass 2007 for Thespieae.

<sup>7</sup> In Boeotia, the land within 2km of the town is usually farmed by inhabitants of the city (see rural-urban model in Snodgrass 1987/9 and in this work chapter II.4).

the evidence<sup>8</sup>. Both components are located in the Mid-fertile flysch landscape of the valley hillslopes.

Burial evidence by Kutumula/Koroneia (*component KO\_77*) might also be connected with the rural exploitation of the upland landscape (see below – LONG TERM SETTLEMENT TRENDS).

### Burial areas

No burial places strictly related to the city seem to be known for the Classical-Hellenistic-Roman period, though, by comparison with other Boeotian *poleis*<sup>9</sup>, they must exist, and the usual burial location is around and along the road exiting a Greek city. Only some excavated bases and funerary *stelai* indicate the presence of a Greco-Roman cemetery area by a church between ancient Koroneia and Ag.Georgios (*component KO\_92*). On the other hand, remains of burials from earlier (LG – *component KO\_15*) and later (LR – *component KO\_10*) periods were found by the city site.

Burial areas of the Geometric period have also been found elsewhere in the *chora*: an EG cemetery found by the road by the Petra spur during a recent rescue excavation (*component KO\_93*, which could be linked to an earlier settlement at Alalkomenai – see above), and a LG cemetery found during the systematic excavation by the local ephorate of a building of Classical date S of the hamlet of Ag.Paraskevi (*component KO\_40*).

In the majority of cases, for the Classical to Roman periods, the material culture available related to burial areas is provided by epigraphical evidence found in different places in the *chora*. Find spots have been approximately located where possible, but inscriptions are very mobile and cannot provide precise locations of burial areas; only that they existed somewhere in the vicinity (*components KO\_68 and KO\_70, KO\_22 and KO\_48*). Only a necropolis of Imperial date has been noted (*component KO\_20*) in an inner location within the Copais basin.

Two burial areas have been given a general date because there is inadequate information to assign a more precise chronology: a grave tumulus (isolated tomb/tumulus), generically dated to the period, in the area between the city of Koroneia and the normal extension of the Copais lake (*component KO\_11*), and a burial area found in the inner Kakaris valley, also dated to the Greco-Roman period, with tile-roofed tombs reported by Lauffer (*component KO\_77*).

### Religious areas

Our picture of the sacred landscape in the *chora* of Koroneia is quite rich and well represented in the archaeological record. It is also complicated by the different attempts at identification of the various archaeological evidence for cult places with sanctuaries mentioned in ancient texts.

A Boeotian federal sanctuary is known from the *chora*, the *Itonion* (probably to be identified with *component KO\_84* – but see also *components KO\_14, KO\_16, KO\_19 and KO\_33 and 34* for identification hypothesis). Moreover, the available archaeological record includes extra-urban sanctuaries (or sanctuaries associated to a settlement), namely: by the Koroneia city site *component KO\_9* – LR, *components KO\_14, KO\_16, KO\_17, KO\_18 and KO\_19* – A to LR; and the sanctuary of Athena Alalkomenia - Tritonia by ancient Alalkomenai (identified with *component KO\_63*, or by others, less probably, with *component KO\_84*).

The sanctuaries of Athena Itonia and Athena Alalkomenia were separate but dedicated to the same deity who, as daughter of Tritonas, was believed to be the goddess of fertility of flooding areas (Philipsson 1951: 474).

Other known Greco-Roman cult places in the *chora* are: *components KO\_27 and KO\_28*, by the rocky spur of Petra, identified as the Classical-Hellenistic sanctuary of Apollo Thilphosios; *components KO\_31 and KO\_32*, the Ponsa Roman-Late Roman sanctuary by the church of Ag.Taxiarchis; *components KO\_55 to KO\_57*, the Archaic to Hellenistic occupation and use as cult place of the cave site above Agia Triada village; only epigraphical evidence leads to the placement of a cult place (Apollo Paiaion?) to the East of the marshy area at the outlet of the Herkyna river, in an inner position within the Copais basin (*component KO\_69*).

Other components have been interpreted as cult places by some scholars, but do not show enough clear evidence for it (and have been assigned a generic ‘activity focus’ character in the database (as in the case of *component KO\_81*, Tsoroko - Ag.Paraskevi).

### Forts and fortifications

The fort of Paliothiva (*component KO\_80*), on the rocky ridge of Libethrion/Tilphousion, closing the Koroneia valley to the S, is the only fort known for the *chora* in the Greco-Roman period, apart from the city wall fortifying the *polis* of Koroneia itself, and a probable fort on Granitsa/Laphystion (between Koroneia and Levadeia *chorai*), listed in chapter II.3.2 (*component LE\_26*). The fort lies just above the saddle carrying one of the two routes leading out of the Zagara valley (Haliartos *chora* – see chapter II.3.8), as marked on the 1:100,000 Greek General Staff map (1943) - Pritchett 1985: 155 (see fig.3). The Petra/Tilphousion fort itself, at the E rocky spur of the Libethrion/Tilphousion ridge, is listed under Haliartos (chapter II.3.8).

### Other activities / unspecified activity areas

Some unspecified activity foci, of various characters, can be identified in the general landscape of the *Koroneiake* archaeological record. *Component KO\_47*, for instance, is a Hellenistic activity focus noted at the site of Kalami – Lioma due to the presence of a large Prehistoric site there. The same is true of the site of Agoriani - Dekedes, where a few isolated Classical black glaze sherds were found when examining the Prehistoric surface material there at the large Prehistoric site; the sherds (*component KO\_12*) could represent a rural burial place probably in

<sup>8</sup> See appendix – *component KO\_86* for an interpretation of the place as a possible sanctuary (Lauffer Kopais I).

<sup>9</sup> See, for instance, examples outside Tanagra and Thespieae also known from intensive survey, and excavated examples by other Boeotian *poleis*, Tanagra included.

association with a farm, or slight traces at the edge of one of the Koroneia burial areas.

The same is true for the Palaio Koroneia site itself in the Geometric period (*component KO\_5*), when we do not know exactly the extent of the occupation at the site (better known for other periods), where only few surface sherds have been recognized as Geometric.

On the other hand, some other components are known to a larger extent, but we still cannot specify a function with certainty. At the site of Agoriani/Ag.Paraskevi (*component KO\_41*), for instance, excavation has discovered a building of Classical date, containing a hoard of 5<sup>th</sup> C BC coins, with no clear function.

Other components, given the character of ‘activity focus’, could also be assigned with a question mark to other categories, and have therefore been discussed in the different sections above: *component KO\_81*, a probable cult place; *component KO\_86*, a possible rural site; *component KO\_87*, a possible rural site or workshop area near Koroneia.

Three main habitation areas are quite evident in the distribution of settlement and known activities in the Koroneia area: perilacustrine, mid-height, and upland<sup>10</sup>. The *polis* itself, and the major settlements, as discussed below, mainly occupy the hillslopes of the fertile mid-height zone (MF in the land capability classification – fig.14). I will consider in detail the evidence for the upland and perilacustrine marshy landscape.

### The upland landscape

A particular type of landscape to be studied for the Koroneiake is the uplands, mainly inhabited, as the data suggest, in the Prehistoric period when the uplands became valuable in terms of exploitation for specialised pasturage, as well as in medieval periods, mainly for security reasons.

Pastoral activities and settling related to upland areas can be considered as crucial for the Koroneia area, marked by the presence of mountains (see above) and of land suitable for grazing (U and LF zones, as well as MF and F zones when fields are fallow – fig.14) within the Helicon landscape.

For Helicon, Burn (1949: 317) notes that the “*Boiotoi of the Early Iron Age, who were essentially plain-dwellers, seem to have taken little interest in their mountains*” (Hesiod’s father, a foreigner, was able to take land there). Conversely, in the Final Neolithic and Early Bronze Age, economic trends seem to have brought people to the mountains (and to Helicon as well) – see the Agia Triada cave and plateau site (*components KO\_51, KO\_58 and KO\_59*).

<sup>10</sup> This can also be noted elsewhere around the Copais basin. Especially from the EH period, we note a presence of settlement at the edge of the basin and in upland areas. During Greco-Roman times, mid-height zones also became occupied, mainly by rural activities, while the economic use of both perilacustrine and mid-height zones, as well as the uplands in particular, is evident in the medieval Ottoman period.

The Koroneia area and its archaeological record, (even if poorly known), may be suitable for the examination of pastoralism issues in the Helicon mountain. The same may be true for Levadeia *chora*, though there we have no archaeological record available. In our case, even if we do not have a great deal of archaeological information available for the mountains<sup>11</sup>, we do have an idea of the extension of the *chora* and how much of it is mountainous area suitable for pasturage, and therefore we can hypothesise on the probable economy and way of living. In addition, the marsh area bordering Copais might also have been a good area for grazing, as would be attested by the fact that the majority of inscriptional evidence concerning right of pasturage comes from Copais (Migeotte 1994).

Research on mountain landscapes is directly linked with research on pastoralism and on people and communities dedicated to pastoralism, either because of tradition<sup>12</sup>, or because of economic exploitation.

Products from pastoralism, in the Mediterranean area mainly husbandry of sheep and goats, are: meat, milk (and cheese), and wool. Manure can also be considered a product. Initial exploitation was for meat as a primary product. Later, between the Neolithic and EBA period, with the so-called ‘secondary products revolution’ (Sherrat 1981<sup>13</sup>), people began the exploitation of animals not only for breeding but for intensive production of milk and wool. Wool is a primary product only for a specialised economy. In the Koroneia *chora*, the Agia Triada cave and plateau are good examples of an increased use of relatively marginal landscapes, and increased reliance on pastoral production (Halstead 1989) within the EH period.

For the historical period, one could investigate whether a *polis* like Koroneia (provided with so much available upland and lowland land for grazing) had an interest in controlling these upland areas, or whether it rather exploited them because they were available and could not be made any other suitable use of. In our case, the fact that the Helicon watershed was important to Koroneia for grazing and some farming is shown by its border dispute with Thisbe mentioned in an inscription<sup>14</sup>.

<sup>11</sup> Also, from the point of view of material culture, we usually do not have much remaining from pastoralists. They have been often called ‘invisible people’.

<sup>12</sup> See for instance, in Boeotia of the Ottoman period, the case of Arvanitic communities mostly dedicated to husbandry activities due to their economic tradition, while Greek villages were initially still linked mostly to agricultural practice (see Farinetti – Sbonias 2004).

<sup>13</sup> According to Sherrat 1981, in the Near East, in the 4<sup>th</sup> millennium, we assist at the so-called ‘secondary products revolution’, practised mostly at large settlements, and perhaps only by the richest households in these, and by the ruling elite in the palace economies. Dairy production is probably taken on throughout Europe from the Final Neolithic period, as well as the use (or sharing with others) of the plough by most farmers.

<sup>14</sup> See above in text and IG VII 1870 (Roesch 1965: 53; Fossey 1988: 337).

Since we know (from historical and epigraphical evidence) how large a role was played in the Greco-Roman period by the relationship between pastoralism and agriculture (Nixon-Price 2001), we might suppose an exchange of products and land within the community, based also on gender division of labour.

Nixon and Price (2001: 405) distinguish three varieties of pastoralism:

- i. stationary pastoralism.
- ii. mobile economy within a restricted area.
- iii. long distance transhumance.

In Koroneia we probably deal mainly with the second case: a mobile economy within a restricted area, within which the flocks might go up to summer pastures approximately a day's walk from the permanent habitation site.

Certainly, though, there were also forms of stationary pastoralism<sup>15</sup>, probably conducted mainly along with agricultural activities, on the marshy lowland at the edge of the Copais as well as in the agricultural fields after the harvests, and in less fertile areas in higher locations within the valley (the Butsurati ridge for instance, or the lower slopes of the Petra/Tilphousion ridge.) Some evidence of quite upland farms, which could be used for agricultural purposes and contemporaneously be bases for upland pasturage (one day or short periods or seasonal), are known from the Koroneia area (see, for instance, Butsurati –component KO\_78). A special case could be represented by the high plateau of Koukoura/Agia Anna (see above).

As for long distance transhumance, we do know, for instance, that in the 20<sup>th</sup> century, and to some extent even today, people from the Zagora/Evangelistria village (up on Helicon in the parallel valley) took their flocks to Aliko, to the sea in the Gulf of Corinth, during winter (see Nixon-Price 2001: 405 - inverse transhumance). Something similar could have happened in the upland settlement within the Koroneia area, when inhabitants dedicated to husbandry could exploit the upland pasturage in the spring and summer, while exploiting lower areas (either by the sea or even by the Copais) in the winter. Invisible people might then become visible on the mountains in summer and in the plain and on the coast in winter. Their families, however, remain visible all year round in the lowlands, plains and villages. Transhumant flocks may coexist with stationary flocks during the locally fertile period (winter-spring in the Koroneia lowlands).

Regarding the cultural aspects of pastoralism, it is worth mentioning Hesiod (Hesiodus *Th.* 22-35), who was taught his song by the muses while he was shepherding his lambs. The useful slopes of mountains like Helicon provided to the plains below both pasturage and the opportunity to receive divine wisdom and inspiration, in the Near Eastern tradition (West 1997). Koroneia is on the W face of Helicon, but the sacred landscape linked to

pastoralism is an aspect of research worth a special investigation (see for instance the cave sanctuary of Agia Triada<sup>16</sup> – components KO\_51 and KO\_58). The cultural attitude to pastoralism was therefore quite positive in Archaic-Classical-Hellenistic times, giving value to the shepherd as a social figure. In the Roman period, areas of pasturage were open to everybody, as they were under central control (especially border areas often of critical use in earlier times<sup>17</sup>), but the attitude towards them changes slightly. In the Late Roman period the attitude to pastoralism was different: the pastoral slopes were 'outside' and dangerous.

As far as the environment is concerned, the *chora* itself, as seen above, can be considered as marked by a high physical and natural attitude to pastoralism/pastoral landscape (mountains, marshy grazing land). On the other hand, the territory of the majority of the *chora* is quite fertile, and inhabitants did not need to concentrate on grazing activities, which was probably *tout-court* complementary.

#### The perilacustrine marshy landscape

Marshes, swamps and fens represent at best the ambivalence which characterises marginal areas (*eschatai*), external to the cultivated space but certainly not passive and inert elements of the rural landscape<sup>18</sup>. In fact, such areas are not simply a pure obstacle to the expansion of cultivation, or potential sources of diseases and poor climate, but in the majority of cases are ideal places for a parallel economy (fishing, plants, ribs, husbandry, etc.). Therefore, apart from the attempts carried out to drain, at least partially, some areas of the Copais basin (see fig.11 and appendix III), one might suppose the existence, sometimes confirmed by the available archaeological record, both of rural sites exploiting sources of parallel economy from the border of the lake, as well as cult places linked to the water<sup>19</sup> which would populate and give active life to the marshy landscape.

<sup>15</sup> See Halstead 1987, who would support the hypothesis of stationary pastoralism as the most suitable form of pastoralism in Classical Greece.

<sup>16</sup> Immediately downslope of the cave sanctuary today is a small church, dedicated to the Virgin. Behind it, a holy tree can be seen, with icons in the central break. The tree, as well as the surrounding forest, is an oak, probably belonging to the ancient vegetation (forest of wild oaks). The cave sanctuary, as well as the modern church close to the holy tree, is near a creek. They can all be linked to the use of upland areas (in the proximity of the creek I also found a chopped flint, probably Paleolithic).

<sup>17</sup> see Daverio Rocchi 1988, Alcock 1993.

<sup>18</sup> As Traina (1988) and Fantasia (1999 after Traina) point out. See appendix III.

<sup>19</sup> See Pappadakis AD 2 (1916): 217ff for a list of cults of Herakles in the Copais.

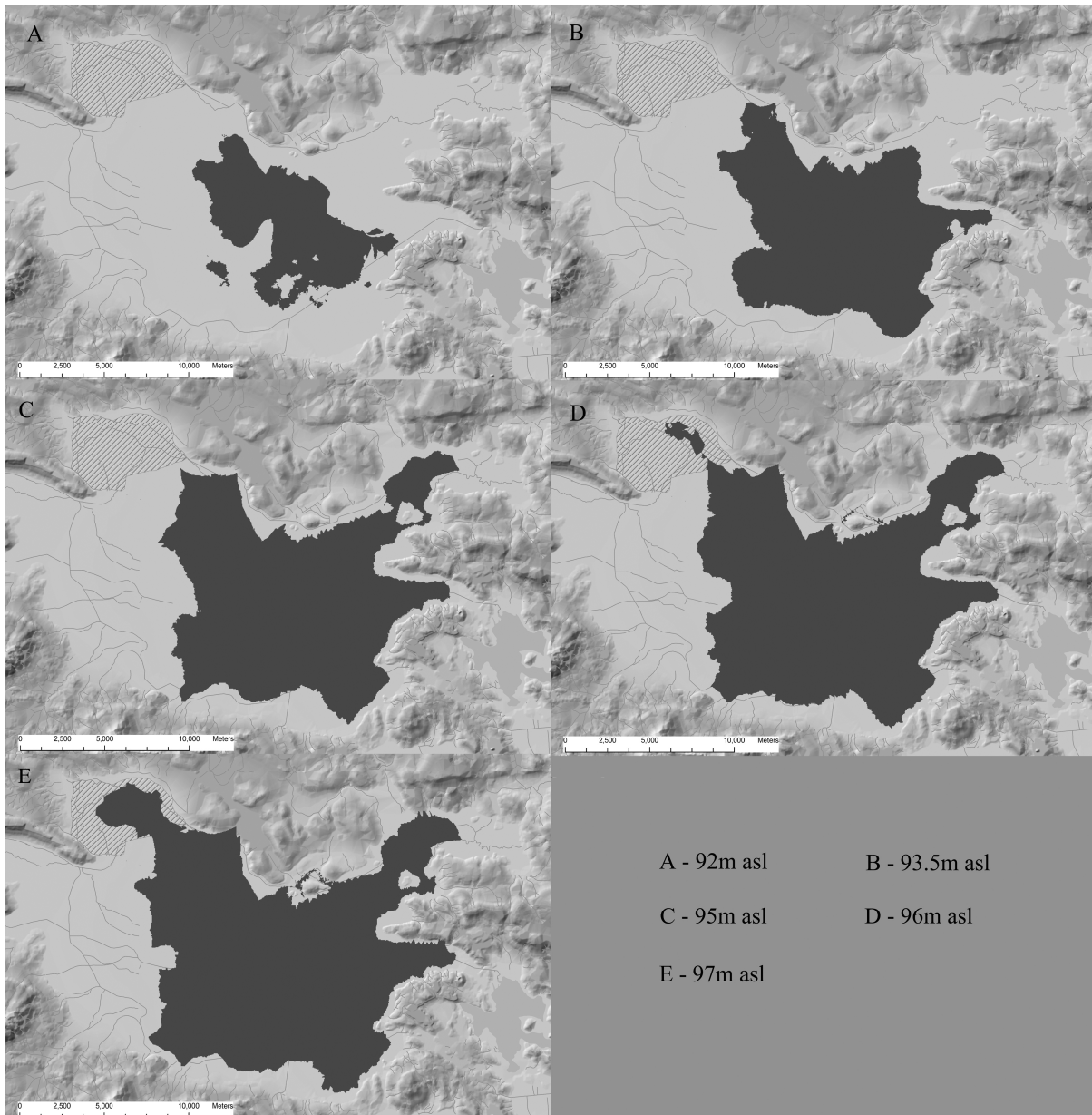


Fig.10. A digital model of the water fluctuations of Copais lake.

The digitally reconstructed model of lake fluctuations<sup>20</sup> can help in evaluating the relationship between *poleis*, perilacustrine activities and the marshy lake. The model is illustrated in detail in appendix III and it is briefly presented here below:

### 1. Annual model

**1a. DRY periods** (One or more DRY years). MIN extension of the lake: up to 92m *a.s.l.*. Relation lake/marsh: marsh progressively covers the whole wet

surface and in some periods the lake is replaced by marsh. (fig.10 - A)

**1b. WET periods** (One or more WET years). MAX extension of the lake: up to 96m (or more –up to 97m for instance- in catastrophic years) and of the marsh. Relation lake/marsh: the lake increases and marsh decreases; marsh progressively becomes lake. (fig.10 - D and E)

### 2. Seasonal model

**2a. SUMMER.** MIN extension of the lake: up to 93.5m (or even smaller –up to 92m *a.s.l.*- in dry periods or in very dry summers). Relation lake/marsh: large marsh and small lake. (fig.10 - B)

**2b. WINTER.** MAX extension of the lake: up to 95m (or larger –up to 96m *a.s.l.*- in wet periods or in very wet winters). Relation lake/marsh: more balanced; the lake increases but usually does not reach the 1b situation. (fig.10 - C)

<sup>20</sup> A dynamic digital reconstruction of lake fluctuations has been implemented, combining the results of the work of the German team led by engineer J. Knauss and the Munich University group (Knauss et al. Kopais 1-2-3; see appendix III for further details), the geomorphological and palaeoenvironmental studies carried out on the area, the examination of aerial photographs and the known archaeological evidence and historical data.

### II.3.1 KORONEIAKE

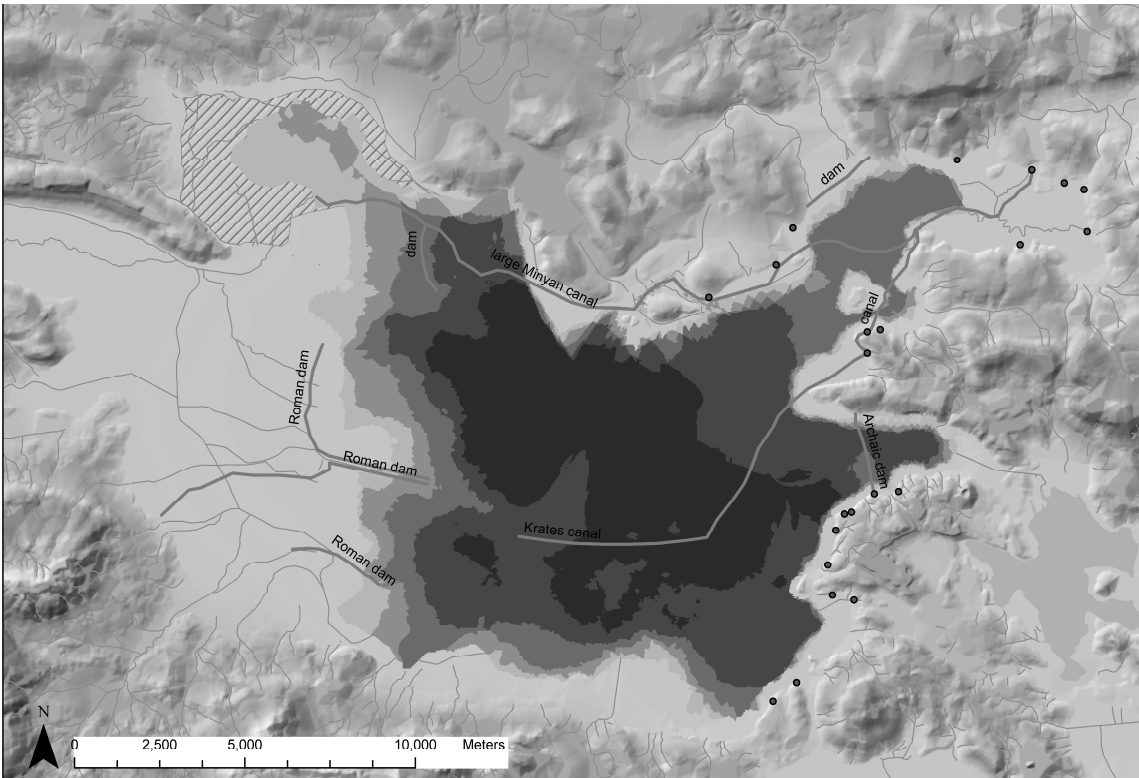


Fig.11. Map of the main recognised features related to the various attempts at drainage of the basin over time (after Knauss et al. *Kopais 3*)<sup>21</sup>. The dots represent the katavothrai.

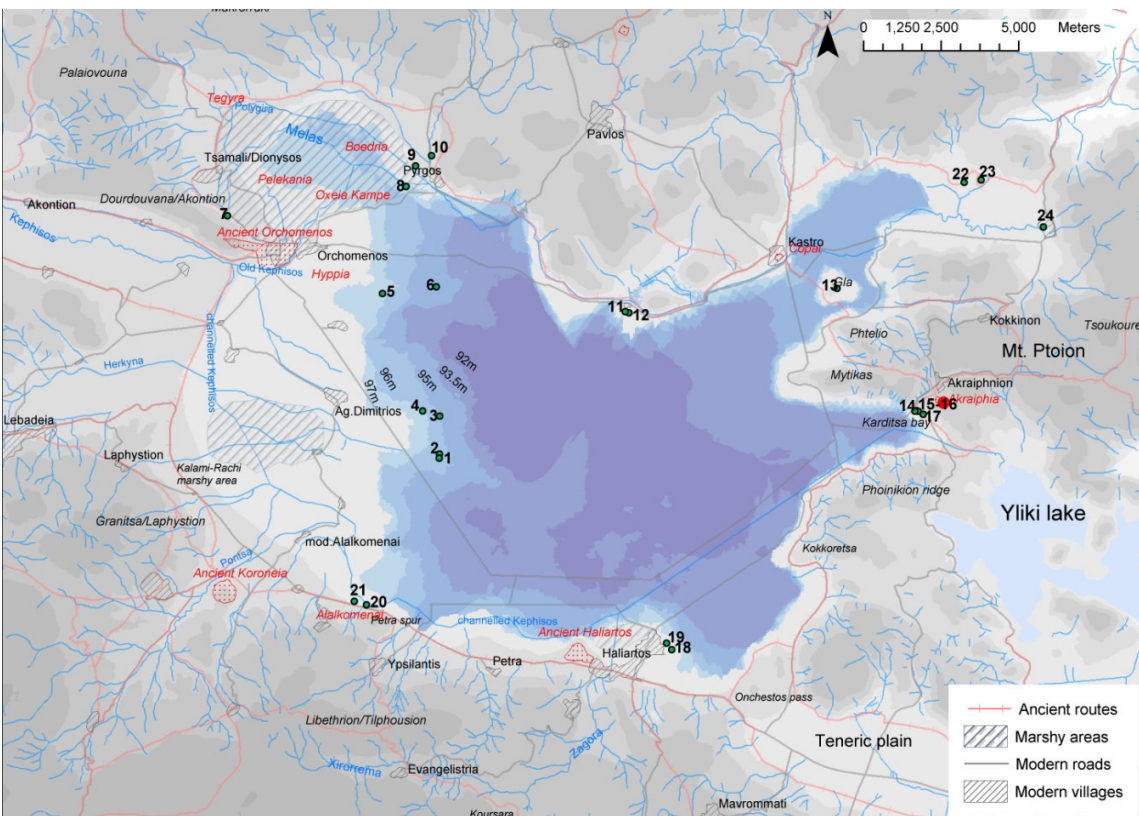


Fig.12. Greco-Roman sites along the reconstructed lake edge (see also appendix III).

<sup>21</sup> The map does not include the whole system of channels, dams and polders that totally drained the basin in the Mycenaean period (for details see the reconstruction made by Knauss et al. *Kopais 1*).

As already pointed out by Knauss and his team (Kopais 3) while conducting researches at the edge of the lake to investigate its historical level(s), sites are mainly attested along the 95m asl contour. This level is hypothesised by the Munich Kopais-Project group as the maximum level reached in antiquity in normal wet conditions (see above, 2b; fig.12 and appendix III).

In the Koroneia area, the archaeological record available would attest mainly the existence of peripheral activities by the edge of the lake in the Greco-Roman period since Geometric times (burial areas -*KO\_70*, *KO\_11*, *KO\_20*, *KO\_93* in map fig.12 nos.1-3-4-21 - and cult places - *KO\_69* and *KO\_27* in map fig.12 nos.2 and 20- in the area of the modern village of Ag.Dimitrios<sup>22</sup>), while a rural exploitation is not directly attested. Nevertheless, the aforementioned activity foci do attest some use of the marshy landscape, along with the burials, possibly marking rural plots along a road exiting the *chora*, known at the very edge of the basin by a marshy area (Kalami/Rachi components *KO\_48* and *KO\_62*, along with other signs of habitation activities - component *KO\_91*<sup>23</sup> - map fig.3 no.40). The results of intensive research in other areas of the Copais basin might shed light on activities and life in this perilacustrine and marshy segment of the landscape: by ancient Haliartos, for instance, in a landscape similar to that of the Koroneia area, at the S edge of the basin, a string of Archaic-Classical rural sites (chapter II.3.8 and map fig.12 no.18 - survey site HAL B4) and a large Late Roman estate (Kahrstedt site - map fig.12 no.19) attest the rural exploitation of the edges of the lake in the Greco-Roman period. The same kind of landscape use is known for the area of Orchomenos (component *O\_42* - a Classical and Roman possible rural activity; *O\_66* - a Classical possible rural site; *O\_60* - a Roman settlement area - map fig.12 nos.6-9-8) and along the E edge of the basin (*NC\_7*, *NC\_73* of uncertain character; *NC\_45* - a Geometric to Classical probable hamlet site; *NC\_56* - a Classical probable farmstead; *AK\_53* - a Late Roman villa rustica - map fig.12 nos.12-13-23-24-17).

#### LONG TERM SETTLEMENT TRENDS IN THE CHORA LANDSCAPE

Though a careful settlement history and a detailed analysis of the shifting of settlements (main and satellite) would be possible only after intensive research into every segment of the landscape, data available for the Koroneia *chora* are indeed enough to attempt a general understanding of the settlement history in the area.

<sup>22</sup> In the whole area of the Copais basin, see cult places: *O\_35*, *O\_66?* (fig.12 nos.7-9), *AK\_55* (fig.12 no.14); burials: *O\_25?*, *O\_58* (fig.12 nos.5-10) *NC\_37*, *NC\_87*, *AK\_57* (fig.12 nos.22-11-15); and a pottery kiln installation *AK\_58* (fig.12 nos.16).

<sup>23</sup> Signs of possible rural occupation are also known on the Kalami-Lioma hill, known as a Prehistoric settlement site (see appendix I.1), immediately above Kalami/Rachi and the marshy area.

The Greco-Roman *polis* of Koroneia was located, as noted above, in the centre of the opening of the valley, in a position from where it could control the passage and also the road going to the inner Helicon and then to the Thisbe area, and the sea, through the Koukoura/Agia Anna pass. The city-site was abandoned at some point at the end of or after the Late Roman period, and the main settlement of the area moved elsewhere. The remains of the Frankish tower still visible on the slope occupied once by the greek *polis* provides evidence of a Frankish settlement there, overlooking the main routes but also in an inner enough position to protect itself from exposure to attacks. Both the Late Roman occupation and the Frankish tower on the lower acropolis<sup>24</sup> indicate the survival of medieval and probably ancient Greek communities, and continuity into Ottoman and Modern times namely at Ag.Georgios, to the W side of ancient Koroneia and on the SE slope of the Laphystion ridge, immediately within the entrance to the valley, where the main settlement moved from the city further into the hills, also exploiting part of the lake. Thus Ag.Georgios, today the largest village of the area, is possibly the replacement of the ancient city from the 14<sup>th</sup>/15<sup>th</sup> century AD. It is recorded in the Ottoman archives as a large Greek community already in 1466. During the process of renaming villages in modern times, the name of Koroneia was given to the smaller upland village on the slope of the Tilphousion ridge. This does not, however, play a central role within the area.

Knauss et al. (Kopais 3: 66) seem to imply that the Prehistoric centre of the area would have been at Agoriani-Dekedes, which would then have moved to Koroneia in historical times. Knauss and his team seem to have been looking for the Homeric Koroneia, and that is why they were searching for one central settlement. In my opinion, the fact that at Koroneia little Prehistoric pottery has been found (see appendix I.1) should lead us to ask whether we should look for an 'old-Koroneia' elsewhere at all. Prehistoric occupation could also have been different, without a central settlement site, and the few prehistoric sherds seen at Koroneia may mark the presence of a small settlement among others (Agoriani-Dekedes; Kalami-Lioma). Intensive and systematic field-by-field survey, begun at the city site in 2007 (within the framework of the Boeotia City Survey Project), should certainly provide some answers.

Within the wider *chora*, apart from evident small landscapes supporting a settlement site in antiquity (such as ancient Alalkomenai and Koukoura/Ag. Anna), we can identify a number of long term potential areas by looking at the traditional settlement pattern. Even if the settlement and other activity foci may have shifted in place within those settlement areas, people living in it exploited and used the same land, the same territory, and experienced the same landscape. In order to identify potential

<sup>24</sup> The ancient city probably became a refuge site in the Early Byzantine period, then a village in Middle Byzantine times and in the Late Byzantine period was still there and controlled by the tower.

## II.3.1 KORONEIAKE

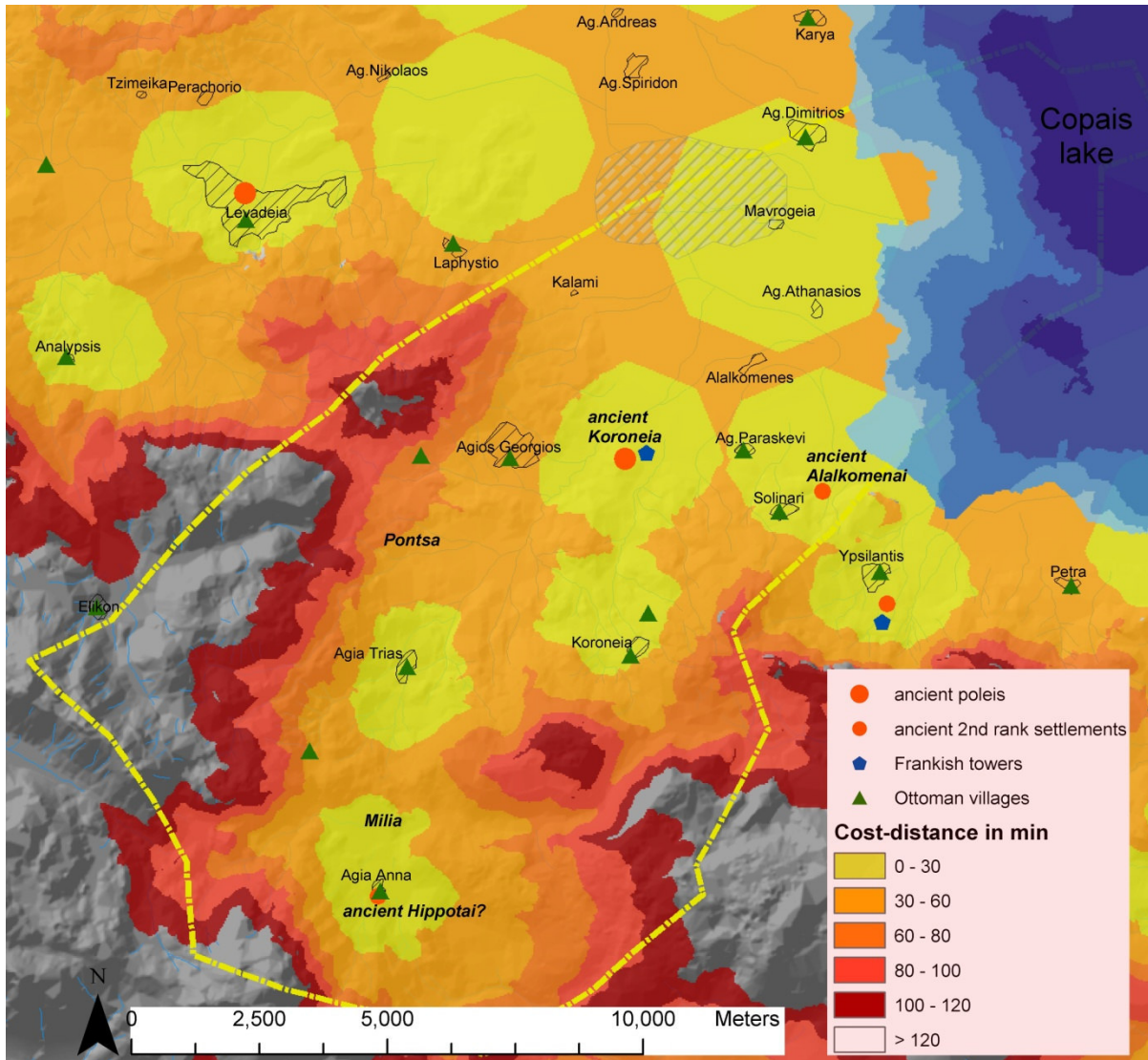


Fig.13. Classified surface representing the cost-weighted distance (1/2 h walking and further ranges) from recognised 1<sup>st</sup> and 2<sup>nd</sup> rank ancient settlements (represented by larger and smaller dots). Areas without dots indicate potential settlement chambers. Ottoman villages and Frankish 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.

settlement chambers I applied a GIS cost-distance analysis based on the Greco-Roman 1<sup>st</sup> (*poleis*) and 2<sup>nd</sup> rank settlements (both certainly positioned and potential). Critical radius is the half an hour walking time distance from the settlement, defining territories potentially and probably exploited by it (see chapter I.2.2 for details<sup>25</sup>). The settlements included in the dataset used for the cost-distance analysis are *poleis* and satellite settlements from the Greek antiquity (Archaic-Classical-Hellenistic periods) over the whole Boeotia region, and can be considered coeval for the purposes of the analysis on

<sup>25</sup> For a similar analysis using Thiessen polygons and straight line-distance of 2.5km radius applied to towns and villages see Bintliff 1994b (fig.20 and p.219: “in the Classical 5<sup>th</sup>-4<sup>th</sup> C BC there is a dominant tendency for the entire cultivable land of Boeotia to be divided into modular territories of some 2.5 km radius, each exploited by a polis or village”). For the methods employed in performing the analysis see chapter I.2.2.

potential long-term settlement chambers. Even if in the majority of cases the settlement rank is known for mature Greek antiquity, I preferred to test the model without differentiating *a priori* the settlements according to their rank, as the model is supposed to be working as a comparison layer for a long-term analysis and is based on the subdivision of the territory applicable also to early periods of history. Then, protourban nucleated settlements (*komai*), defined also as *proto-poleis*, were sharing the territory fairly regularly. Afterwards, only some of them would have reached the status of *poleis* and would have created differentiation between 1<sup>st</sup> and 2<sup>nd</sup> rank settlements. The model itself, result of the analyses, shows a relatively larger territory for the proper *poleis* (see chapter II.4). The map in fig.13 displays the results of this analysis, commented upon below. Marked are the ancient hypothesised settlement network on which the cost-distance analysis is based, known Frankish towers,

identifiable Ottoman villages, and present day villages. The map in fig.14 shows 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.3), with land capability information underlain.

In the plain area along the edge of the former lake<sup>26</sup> a series of settlement chambers open up. These are occupied today by the modern villages of Ag. Dimitrios, Alalkomenai, Ag. Paraskevi and Solinari, which exploit the fertile alluvial soils (fig.13-14). Some of these have predecessors in the Ottoman period. Ag. Dimitrios is recorded in the Ottoman archives from 1466 to 1570, then in 1642-1688 as a Greek village. The large size of this village even in 1466, along with its lakeside position, as well as its survival through the troubled 17<sup>th</sup> and 19<sup>th</sup> centuries, indicate a settlement chamber on the immediate W outskirts of Copais, probably affected by seasonal flooding<sup>27</sup>. The archaeological evidence at Xinos (*components KO\_64 to KO\_72*, as well as *KO\_11* and *KO\_20*) would support this. To the S of it the second rank villages of Mavrogeia and Ag. Athanasios occupy part of the plain today). Further S, Mamoura/the modern village of Alalkomenai, in the middle of the Phalaros/Pontsa's former outlet area, does not find any possible attribution among the villages recorded in the Ottoman archives<sup>28</sup>, while only uncertain evidence might indicate the presence of a sanctuary and/or burial site in antiquity (*components KO\_33 to KO\_35*). On the other hand, the area of the settlement of ancient Alalkomenai, in a small valley facing Copais, at the E entrance to the Koroneia valley, certainly constitutes a small settlement chamber. A settlement site (*components KO\_21, KO\_24, KO\_25*) was located there in Greco-Roman times (a small *polis* – defined as *polichni* in Roman times – a satellite of Koroneia<sup>29</sup>), but Byzantine and Ottoman sherds were also noticed by Lauffer (Kopais I: 75) to the W of Solinari village, down the slope in the Dichalorevma locality, probably marking the location of a small village/hamlet in medieval times. Solinari (formerly Sulinari) has probably to be identified with the Ottoman village of Seta/Sela or Suli recorded in the Ottoman archives. It could represent a case of a shifting of settlement with the village of ancient Alalkomenai.

Other possible small settlement areas might have existed at the edge of the Copais and towards the border with the *chora* of Levadeia. The two Prehistoric settlement sites of

Agoriani-Dekedes (*components KO\_36 to KO\_39* by Ag. Paraskevi) and Kalami-Lioma (*components KO\_42 to KO\_45*) may mark two small landscapes available at the edge of Copais, exploited since the Neolithic period and working as such especially in Prehistoric periods (in parallel with a probable Prehistoric settlement site at palαιο-Koroneia – *components KO\_2 to KO\_4*), while later included into larger settlement chambers (at least for the Agoriani area). In the area of Agoriani-Dekedes and the modern settlement of Agoriani/Ag.Paraskevi, Lauffer (Kopais I: 110) seems to suggest a shifting in location of the Prehistoric settlement, that would have moved in historical times to the SE foot of the hill<sup>30</sup>. I would rather suggest a shifting in use of the place (see Agoriani-Dekedes entries: *components KO\_36 to KO\_39, KO\_9, KO\_12*): settlement site on the flat top of the hill in the Prehistoric period, abandoned in the Dark Age; cemetery site SE of the hill in the Geometric (LG) period linked to a habitation site which was probably nearby; probable Classical rural cemetery on the flat top of the Prehistoric mound, probably associated with a Classical farm nearby or just at the edge of a cemetery of the *polis* of Koroneia along the road<sup>31</sup>. In modern times a hamlet (Ag.Paraskevi, recorded already in the 16<sup>th</sup>-century archives) occupied the area at the foot of the mound, by the road. At Kalami-Lioma later occupation (Classical-Hellenistic, *components KO\_46 and KO\_47*), probably a rural site, is attested at the site of the Pre-Mycenaean settlement itself, with possible Hellenistic-Roman burials nearby (*components KO\_48 and KO\_62*). The cost-distance analysis shows a potential gap in the area of Kalami (fig.13), which could however be interpreted as an empty area marking the border between the *chorai* of Koroneia and Levadeia. In an inner location, the Late Roman sanctuary in the locality of Pontsa, situated in an inner valley of the Pontsa river tributaries running parallel to the S to the Ag. Georgios basin, might mark the focus of a potential small settlement chamber, and the cost distance analysis 2.5km / 1/2h walking distance radius might confirm the space for a potential small settlement area (fig.13).

In conclusion, both the modern and Ottoman settlement pattern, as well as the available traces of Prehistoric and ancient occupation, show the existence of villages occupying and exploiting the edge of the lake.

In the inland of the *chora* of ancient Koroneia there is today a series of villages which date back to the medieval and Ottoman periods<sup>32</sup> and show the economic use of the uplands in medieval and postmedieval times.

<sup>26</sup> For the reconstruction of the lake fluctuations in the past see above in the text – PERILACUSTRINE LANDSCAPE and appendix III.

<sup>27</sup> Seasonal flooding is shown in the lake fluctuation model (fig.10 and see above in the text – PERILACUSTRINE LANDSCAPE and appendix III for details).

<sup>28</sup> Its existence has probably to be linked with the drainage of the lake.

<sup>29</sup> In the Roman period, the only other settlement existing in the area of Koroneia seems to have been the village of Alalkomenai (Pausanias IX 33.5-7). As noted by Fossey (1990c), the village still existed in the imperial period while the sanctuary nearby (*components KO\_63*) had fallen in disuse.

<sup>30</sup> The same situation, as Lauffer (Kopais I: 110) notes, occurred at Pyrgos, in the NW part of the Copais basin (by the temple of Apollo – see chapter II.3.4) and in other places.

<sup>31</sup> The building with a hoard found just down the slope (*component KO\_41*) still has to be explained.

<sup>32</sup> They are mainly arvanitic but probably refound Byzantine settlements.

### II.3.1 KORONEIAKE

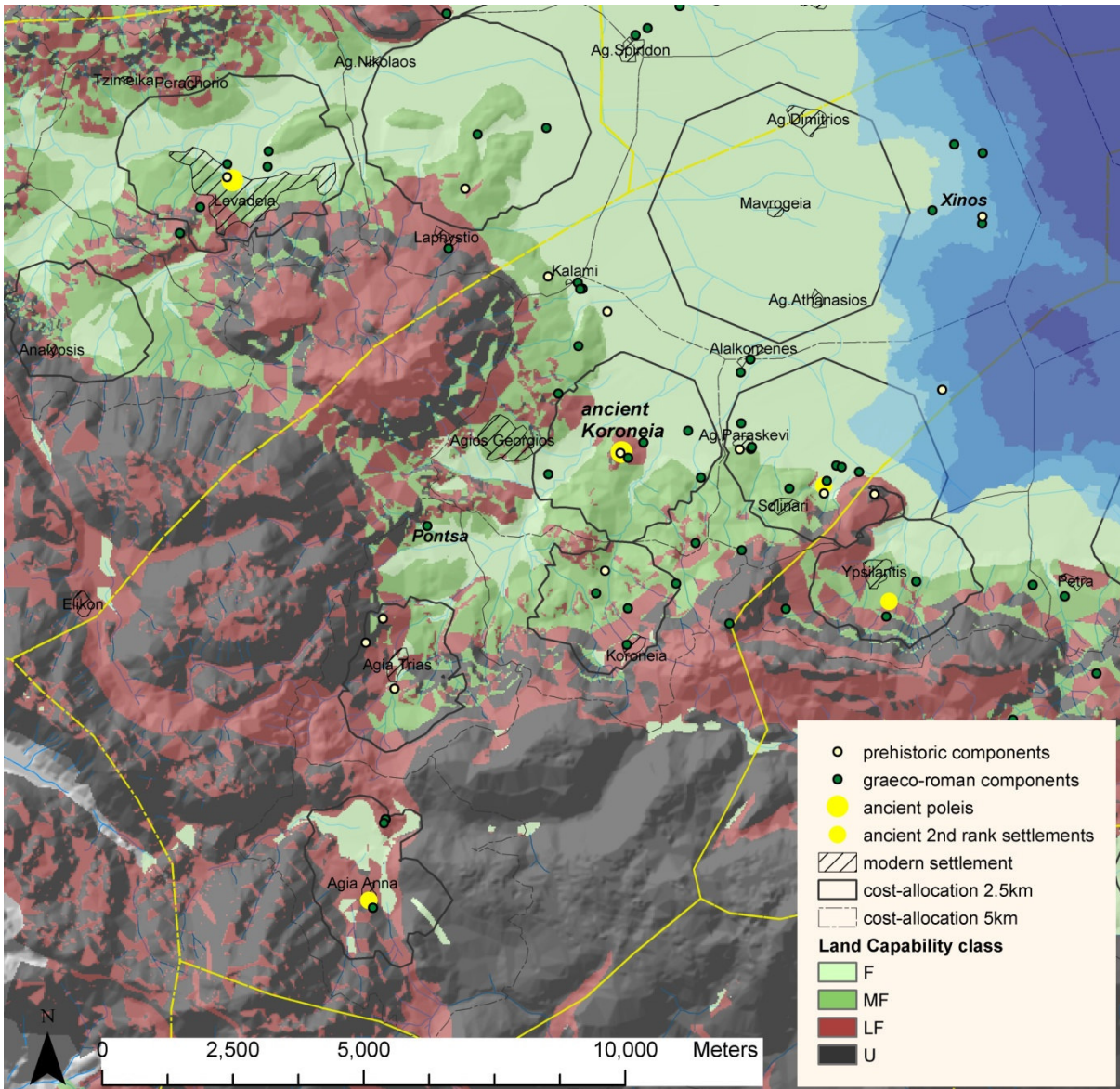


Fig.14. Map showing the Greco-Roman settlement network, the polygons resulting from the cost-distance analysis (marking half an hour and one hour walking time distance) and dots representing the known archaeological components (same as in fig.3), with land capability information underlain.

Kutumula/Koroneia is an Albanian hamlet recorded in the Ottoman archives in 1466-1570 and 1646-1688. Higher up on Mt. Helikon is Steveniko/Ag. Triada, a Greek village recorded in 1466-1570 and Koukoura/Agia Anna, in the upland plateau opening up beyond and above Steveniko/Ag. Triada, on an inner route to Helicon, a Greek village recorded in 1466-1570 and 1646-1688. An additional village in between, Milea, is recorded in the Ottoman archives in 1521-1570 and again in 1642. The availability of land and resources for settlement activities in the wider area of Milea/Milia is confirmed by two possible rural sites (Milia – *components KO\_49-50* as well as *KO\_95-96*), which in Greco-Roman times, though, might have gravitated around the settlement area of Koukoura/Agia Anna. The area of Koukoura/Agia Anna constitutes a well topographically-defined upland settlement chamber in inner Helicon, also occupied in antiquity, and attempts have been made to locate ancient *Hippotai* at the edge of this wide upland plateau - fig.14

(see *component KO\_13* and Fossey 1990e: 205-7). In the deepest, narrowest part of the Koroneia *chora*, the Agia Triada area can also be considered a small upland landscape, even if not so well defined as the Koukoura/Agia Anna case. The area is occupied in the Prehistoric period (especially EH – see above), but its high position within the valley, by the passage of the upland road, gives it a long-term potential. The secure, high position, overlooking all of the *chora* of Koroneia, would constitute suitable characteristics for a Dark-Age refuge settlement<sup>33</sup>, certainly inhabited in the Late Frankish / Early Ottoman period. By that time, the lower area of Kutumula/modern Koroneia village, on the slope of the Lybethrion/Tilphousion ridge, was also chosen for settlement. The cost-distance analysis indicates that there

<sup>33</sup> There is no evidence for it, but the village really looks, even today, like a fortified settlement (see for a parallel the case of Agios Konstantinos – Tanagra, appendix I.14).

is room for a settlement site there, as the Ottoman and present settlement pattern would attest (fig.13). Lauffer would suggest the presence of a Greco-Roman village settlement in the area of the modern village of Kutumula/Koroneia (mainly on the basis of *component KO\_76*<sup>34</sup>), but the evidence is weak and could relate to another kind of activity focus rather than a settlement site. The settlement of modern Kutumula/Koroneia was probably created in the medieval period<sup>35</sup>, with the intense economic use of uplands. Like the village of Zagora/Evangelistria to which it is connected by a mountain road, it is clearly a medieval upland settlement located in the inner valley. Those upland areas in antiquity could have been exploited solely by farms or as a base for husbandry activities. The location of an Ottoman village does not directly mark a settlement chamber used as such in Greco-Roman times also, as is attested by the case of Ginosati, in the area of ancient Tanagra, where the Ottoman village (Vionis 2006) exploited an area occupied in antiquity by farmsheds and rural sites (see chapter II.3.14 and appendix I.14 – THE TANAGRA SURVEY PROJECT).

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<sup>34</sup> See also the cemetery location for the supposed village at Kutumula/Koroneia - *component KO\_77*.

<sup>35</sup> An Albanian hamlet recorded for the first time in 1466, it could have refounded a Byzantine settlement.