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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.3.4

The Copais area: Orchomenos

TOPOGRAPHICAL SETTING

The *chora* of Orchomenos generally included the area of the Dourdouvana/Akontion ridge (at the E end of which is ancient Orchomenos, and along which to the S runs the Kephisos river) and the area before it towards the Copais, as well as the NW bay of the Copais (otherwise called Tsamali bay, after the village of Tsamali/Dionysos along its W edge).

The gulf of Tsamali, to the NW of Copais, opens up just behind the Akontion ridge, and reaches a distance of 4km from Orchomenos. To the N side of the Akontion, the Tsamali bay runs into the mountains (Philippon 1951: 466). The bay is bordered to the SW by Mt. Akontion, to the W by Palaiovouna ridge, to the NW by Makrorrachi, and to the N by Mt. Chlomon (1080m asl), of which the others are spurs (Fossey 1988: 351). The plain along the edge ends to the E with a Frankish tower by the village of Pyrgos, from where the higher mountains forming the basin edge begin.

The NW bay is characterised by a hydrological balance, and by a different behaviour not strictly related to the fluctuations of Copais (see chapter III.1). It was an area mainly characterised by the presence of a permanent marsh, due to the flooding of the Polygira stream (Philippon 1951: 474) and the presence of the springs of ancient Melas - one of the two main rivers feeding the Copais¹. It is probably this small gulf that Theophrastus names 'Orchomenian lake'. In winter, the marsh joins with the lake, but it does not constitute part of it. The marshy character of the Melas basin is described by Plutarch (*Sull.* 20). This area of Tsamali, which would have looked the same in Plutarch's time (*Pel.* 16; *Sull.* 4-5), should be the swamp known as Pelekania, which produced reeds for flutes and created some islets (Theophrastus *HP* IV 11.8 - fig.12 in chapter II.3.1)².

Lauffer (Kopais I: 149) notes that there was probably a communication route within the basin that crossed it (from Pyrgos to Orchomenos)³, though the basin was often entirely swamp. As Philippon (1951: 476) notes, the roads coming from the W avoided the swamp, going

to Orchomenos or to Copais along the N edge⁴ (right around the bay, from Pyrgos to Orchomenos, passing by the site of Polygira - Lauffer Kopais I: 149 and see below), while in modern times works have deepened the Melas bed, therefore collecting the swamp water and creating fertile land. In summer, the arm of the lake along the N edge of the gulf created a swamp collecting the water from the Kephisos and Melas (see above).

Today, like the rest of the basin, the NW bay has been drained, and, as Fossey notes (1988: 351), "*only the marshes around the springs and the head-waters of the slow-moving Melas remind one of the area's former water-logged state*" (see below).

The Akontion is a long, narrow ridge running in an E-W direction. It is bounded to the N by the Melas river, which emerges through several springs at the N foot of the ridge, and to the S by the Kephisos river, which 'wimples like a snake' (Strabo IX 3.16) across the valley.

The Kephisos runs along the S edge of the Akontion, through Chaironeia basin, and reaches Orchomenos before draining into Copais. In Philippon's time (and today), in the tract where the river crosses the former Petromagoula settlement⁵, the riverbed is dry, while in earlier times it probably was not (Philippon 1951: 472)⁶.

Boundaries

To the N and the NW, the natural limits of Orchomenian territory are the mountain ridges separating the NW Copais bay from the territories of the ancient East Lokrian town of Kyrthones (=Kokkala, see Oldfather *AJA* 1916: 154-172), and the Phokian towns of Abai (=Palaiochori Exarchou, see Yorke *JHS* 1896: 291-312; Fossey 1986: 78-81) and Hyampolis (=Bogdanou, see Fossey 1986: 72-76).

⁴ For instance, Plutarch (*Pel.* 16), mentions that, in order to go from Tegyra (identified by Lauffer with modern Pyrgos, but see below) to Orchomenos, Pelopidas and his army had to use a path over the mountains (see also Pausanias IX 38.6). Whether Tegyra is located at the site of Polygira or Pyrgos, Plutarch's description of Pelopidas' path over the mountains is suitable for both identifications (see below).

⁵ The former settlement of Petromagoula when joined with the former settlement of Skripou to its NE formed the modern village of Orchomenos.

⁶ Before it dried up, different arms of the river flowed towards the villages of Karya and Ag.Dimitrios, while its main course flowed NE, via the gulf of Tsamali, towards Pyrgos, and then drained into the lake when the water level was high, or into the Melas in dry periods (Philippon 1951: 472).

¹ The Kephisos is the other.

² The area was visited also by Ulrichs 1840: 192; Philippon 1951: 474 - see appendix III and fig.12 in chapter II.3.1. On the normally waterlogged nature of the NW bay in Classical times see Plutarchus *Sull.* 4-5; *Pel.* 16; for the fluctuations in the extent of the lake cf. Theophrastus *HP* IV 11.3.

³ Mentioned also in Ulrichs 1840: 193f. and Vischer 1875: 583f.

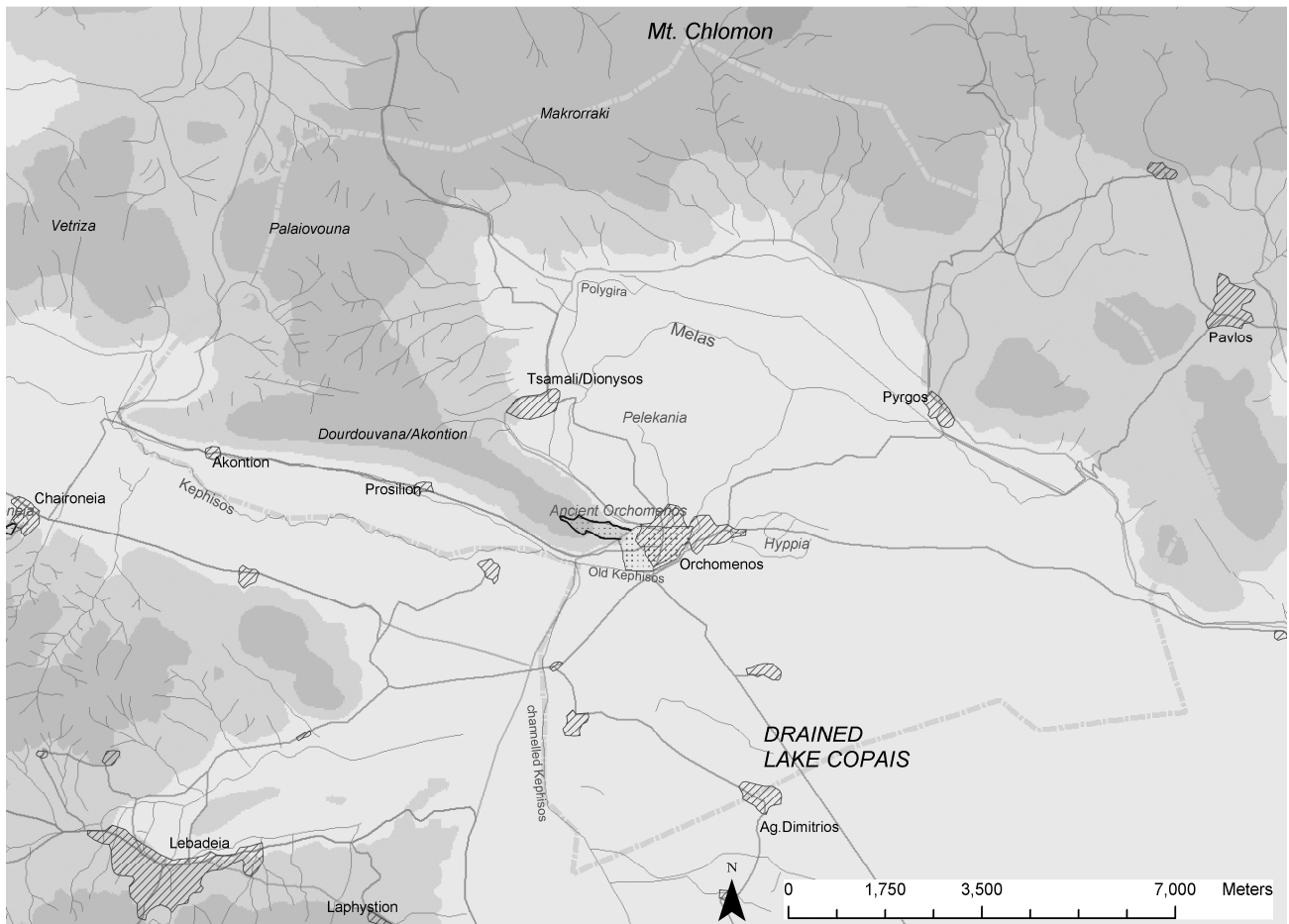


Fig.1. Topographical setting of the chora of Orchomenos.

The extent of Orchomenian territory along the N shore of the Copais is unclear (Fossey 1988: 364). As Fossey notes (1988: 364-5), to the E, the lake and the peripheral marshes would probably provide the limits; to the W, Orchomenos' territory would border the Chaironeia *chora*⁷ and in some periods of history that of Phokian Panopeus⁸ (the border running probably along the Kephisos river flowing S of and parallel to the Akontion, and along a line from the river towards the Paliovouna and Mavrokastro peaks to the NW of Akontion itself, marking the border with Phokis⁹); to the S boundaries are more difficult to establish (see below – RESOURCES- and appendix III).

PHYSICAL LAND UNITS

The physical landscape of the *chora* can be described as mainly below 200m asl, as is evident from the figure

(fig.2 in chapter II.1) and the percentage chart below, mainly due to the presence of the Copais basin.

The mountain segment (> 600m) is not represented, except for a very small area to the N, marking the border of the *chora* with Phokis. The border with the surrounding *chorai* of Boeotia and other regions are therefore marked by lower or higher hills up to 600m.

<i>Hilly landscape</i>	36%
<i>Mountainous landscape</i>	0.3%
<i>Plain</i>	63.7%

1	P1_P2	lacustrine basin, valley	53.3%
2	P3	gentle slope	3.8%
3	P4	foothill	6.7%
4	H1	plateau	12.4%
5	H2	gentle slope	1%
6	H3	moderate slope	6.8%
7	H4	severe slope	11.2%
8	H5	very severe slope	4.6%
9	M1	plateau	0.3%
10	M2	plateau/gentle slope	0%
11	M3	moderate slope	0%
12	M4	very severe slope	0%

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

⁷ which was reduced to Orchomenian control in the Archaic period (Roesch 1965).

⁸ Strabo IX 416.

⁹ Dasios (1995) is certain that Panopeus possessed the whole Idilion/Vetrisa mountain and probably at least a part of the small valley to its E, to get the NW hillsides of the Yphanteio/Paliovouna, where the border at Mavrokastro (480m) was controlled by a fort, whose remains can still be seen – see Dasios 1995b.

Lacustrine basin and valleys (P1_P2) are predominant in the plain landscape, constituted mainly by the Copais basin and the Tsamali bay.

Foothill landscape (P4) marks the area immediately below and following the heights surrounding the plains. Within the foothill landscape also lies the ancient *polis* (as well as part of the modern village) of Orchomenos.

No mountainous segment is represented, since the *chora* landscape morphologies do not reach the 600m asl elevation (apart from a very small area –M1– on the heights at the border with Lokris).

A lot of H4 and quite wide areas occupied by upland plateaus can be recognised within the hilly landscape (H1 – 12.4%).

RESOURCES

The *chora* landscape is characterised by fertile and arable land, suitable for agriculture, in the empty space at the edge of the Copais basin (even though some areas are, as seen above, marshy, and therefore suitable for other kinds of activity), while the fertile soil in the Tsamali area should be removed from the picture because it is permanently marshy (see above).

At the time that Fossey was recording his gazetteer (late 1970s – early 1980s), the NW bay (Tsamali bay), like the rest of the basin, was cultivated for cereal and tobacco (Fossey 1988: 351), but since then cultivation has changed, and today the bay has mainly cotton and other irrigated crops. Looking at the soil of the bay¹⁰, one notices that after drainage and with intensive irrigation agriculture, as well as water pumps working continuously, it has gradually become less calcareous, with a slight sandy component, which would both be considered unusual in a former marshy area. This is due to the intense water catchment carried out by farmers which has lowered the water table.

Due to the flooding of the Kephisos river, the promontory of Akontion is surrounded by a large fertile area which was usually not flooded, extending 3km to the NE and 6km to the E and SE of Orchomenos. Philippson (1951: 472) noted that the soil here is fat, with red clay soil at some points. It was cultivated with cotton, cereals and vineyards, and in 1928, between Levadeia and Skripou, some olive groves were burned by frost. It seems that due to the drainage of the lake, which used to make the climate milder, the winter became colder. In 1934, to the E of Skripou, Philippson saw herds of cows and horses.

A map showing land capability (for agriculture – see chapter I.2.1) for the Orchomenos area can be seen in fig.6. While the most fertile areas are constituted by the Copais plain, the part of Kephisos valley probably belonging to Orchomenos, as well as the part of the inner upland area to the E marked by stream deposits, is also fertile. The extended wide plateau area to the E should, however, be considered partially unfertile (U), and partially low fertile (LF), due to the presence of limestone lithology.

For the probable extension of the *chora* of Orchomenos in the Copais basin, the flood situation of the W area of the basin itself and consequent availability of fertile land to the *polis chora*¹¹, a few comments can be made. In the Archaic period¹², Orchomenian coins carried on the reverse an ear of corn (Babelon 1907: 938 and Hill 1906: 7). Fossey comments (1988: 364) that this is ‘somewhat ironical’, since it is doubtful that the land of Orchomenos was ever very productive of crops, since the northwestern bay was marshy in Classical times¹³. In the light of Knauss’ information and of our attempt at modelling the hydrological situation and the fluctuations of the lake’s extents (chapter II.3.1 and fig.10; fig.2 in chapter II.3.2), we might more carefully examine the interpretation of the relationship of the *polis* of Orchomenos with the lake, and the character of its economy. We know that variations in the lake’s water level did not influence the area of Tsamali (NW corner – Theophrastus’ Orchomenos lake), whose permanent marshiness was due to the water of the Melas and the springs at the foot of Akontion (see above). We may consider, for instance, the presence of a very large plain to the S of the *polis*, which probably belonged mainly to it¹⁴, and was perhaps also very fertile, rich in thick soil (limus deposits), though probably slightly marshy most of the time (see Philippson, who discusses the area of Agios Dimitrios – see above), taking into account the actual hydrogeological conditions of the plain. Theophrastus informs us of the density of Boeotian wheat (*HP* VIII 4.5) due to thick soil and cold climate (*CP* IV 9.5). Despite all this, in front of Orchomenos lay a large cultivable area, fertile and quite suitable for cereal cultivation, even if slightly or temporarily marshy, as in the case of the modern village of Mouriki, at the E edge of Yliki lake.

As for other possible resources available in the *chora* territory, Fossey (1988: 365) mentions: reeds¹⁵ and pasturage¹⁶. Grazing land was available on the slopes of Akontion and the other ridges surrounding the NW Copais, as well as in the marshy areas (especially used for horses). Grazing activities are attested in the marshy area of the Tsamali bay: in 1928 the 214 inhabitants of Tsamali village were all nomad shepherds by the Polygira spring (Philippson 1951: 476). For a parallel economy available from the lake and swampy areas, see appendix III.

¹¹ Fossey 1988: 365 says: “It is perhaps doubtful whether the land of Orchomenos can ever have been very productive of crops; this makes the reverse type of her coinage, an ear of corn, somewhat ironical”.

¹² First Orchomenian coinage, around 550 B.C.

¹³ Fossey refers to Plutarchus *Sull.* 4-5 and Theophrastus *HP* IV 10-11.9 who talk about the ‘Orchomenian lake’, which, however, probably refers to the Tsamali bay (see above).

¹⁴ See discussion in chapter II.3.2 –BOUNDARIES– and fig.2.

¹⁵ See Plutarchus *Sull.* 4-5; Theophrastus *HP* IV 11.3.

¹⁶ IG VII 3171 indicates the importance of pasturage to Orchomenos’ economy, and the strict control of pasturage rights (Roesch 1965: 60 and 212-3). The inscription mentions cattle, horses, sheep and goats.

¹⁰ Personal observation.

THE ARCHAEOLOGICAL RECORD

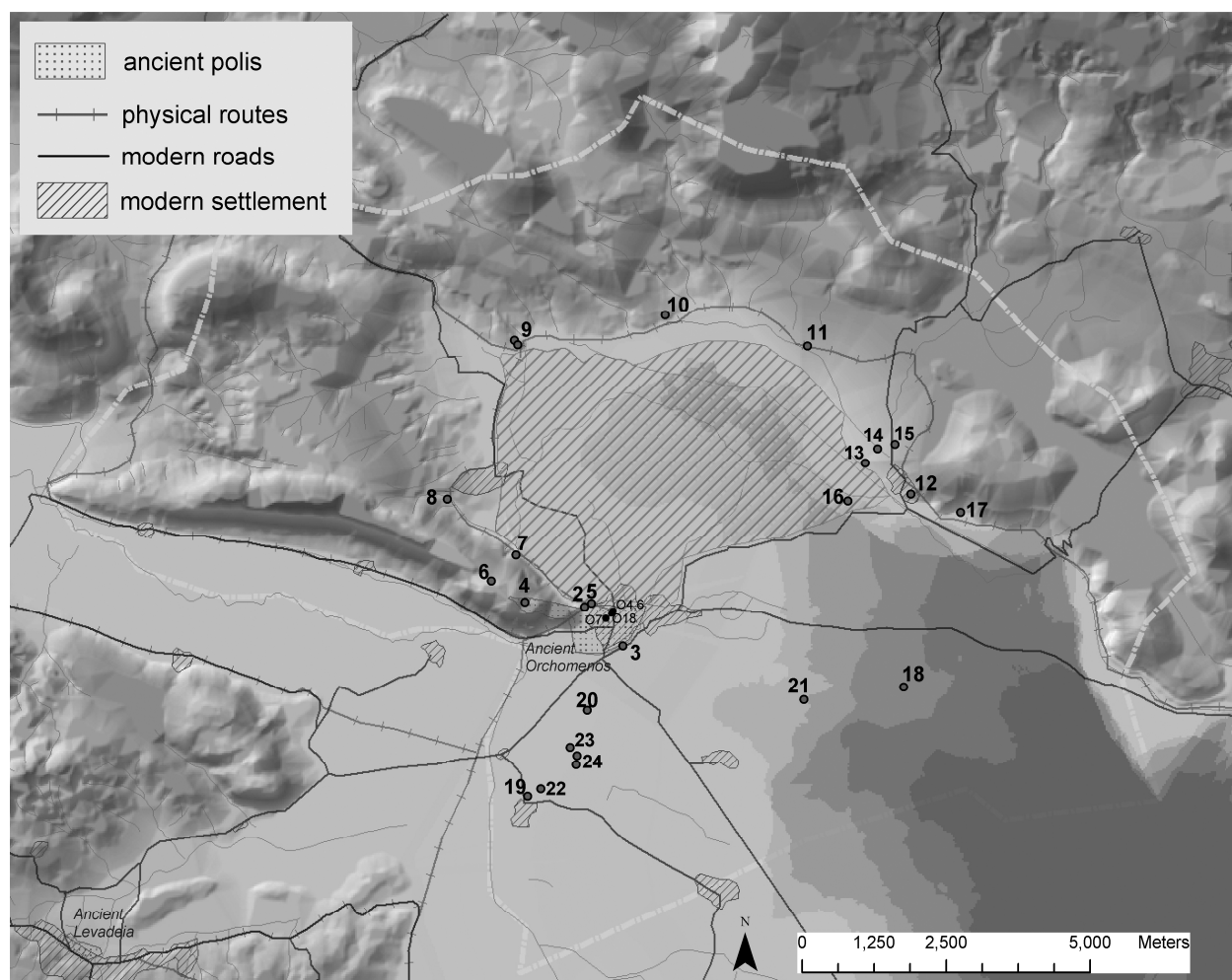


Fig.2. Archaeological map of the Orchomenos chora.

1	ORCHOMENOS	<i>Components O_1 to O_11; O_13 and O_14; O_16 to O_19</i>
2	Orchomenos	<i>Component O_12</i>
3	Orchomenos	<i>Component O_15</i>
4	Orchomenos	<i>Component O_16</i>
5	Orchomenos neighborhood	<i>Component O_24</i>
6	Orchomenos quarry	<i>Component O_21</i>
7	Melas source	<i>Components O_35 and O_36</i>
8	Tsamali	<i>Component O_37</i>
9	Polygira	<i>Components O_28 to O_34</i>
10	Avrokastro–Mavromandili	<i>Component O_44 to O_46</i>
11	Erima Kalyvia	<i>Component O_47</i>
12	Pyrgos	<i>Components O_48 to O_56</i>
13	Pyrgos magoula	<i>Components O_62 to O_66</i>
14	Pyrgos NW	<i>Component O_57</i>
15	Pyrgos-Trassa	<i>Component O_58</i>

16	Pyrgos-Melas dam	<i>Components O_59 to O_61</i>
17	Mavrospilia	<i>Component O_67</i>
18	Old Orchomenos	<i>Components O_23, O_38 to O_43</i>
19	Vranesi tumulus	<i>Components O_26 and O_27</i>
20	Orchomenos tumulus	<i>Components O_22</i>
21	Orchomenos Magoula SE	<i>Component O_25</i>
22/23/24	Vranesi	<i>Components O_68 (22), O_20 (23) and O_69 to O_70 (24)</i>

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

All studies concerning Copais covered within their research the area of Orchomenos to some degree, meaning that it has therefore been quite intensively investigated (though not by means of systematic intensive artefact surface survey).

The majority of the studies, especially the earlier ones, have been focused on Bronze Age periods and material. The landscape of W Copais is characterised by the presence of low Prehistoric *magoula* sites similar to those typical of Phokis, which attracted (and attract) the interest of many archaeologists as well as of travellers in the past, and as such, they have been thoroughly visited.

A large quantity of archaeological information is available for the city itself; in a less clear form from early excavations, and in a more systematic way from recent excavations (mainly rescue) within the modern settlement.

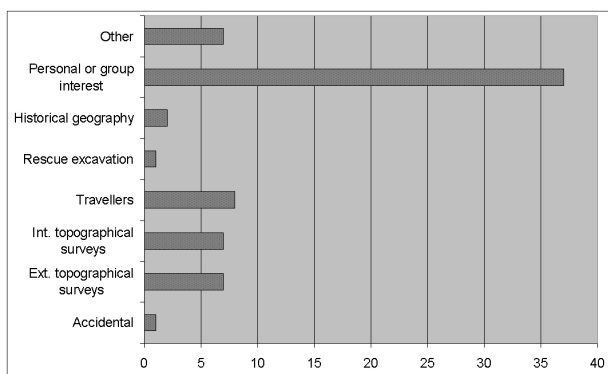


Fig.3. Graph illustrating the proportion of components discovered in different research frameworks.

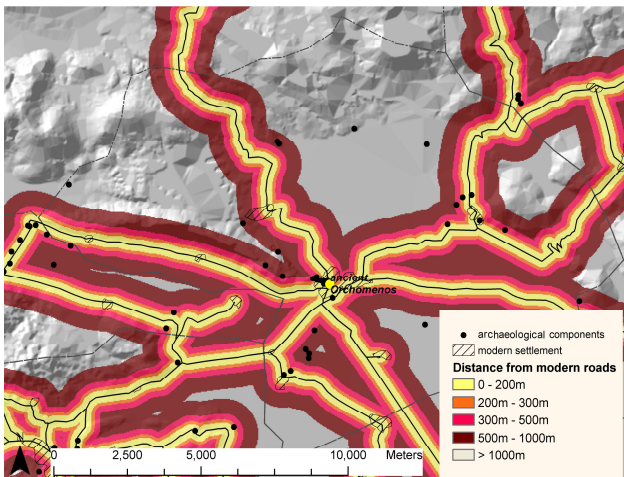


Fig.4. Relationship between components and modern road network.

The graph (fig.3) illustrates the proportion of components discovered within different research frameworks. In the case of the Orchomenos *chora*, the large presence of ‘Personal or group interest’ entries is due to many studies of the area having a personal interest on a specific topic, mainly related to the Prehistoric occupation as well as the behaviour of the lake and the settlement dynamics around it. Compared to the Levadeia *chora* (chapter II.3.2), for

instance, there is a notable decrease in the occurrence of discoveries through rescue excavations.

The ratio of prehistoric to Greco-Roman components known is 30 to 33 (1:1.1), while among the historical periods, 63.3% is dated Archaic to Hellenistic, 23.3% Roman-Late Roman, and 13.3% is attributed generally to the Greco-Roman period.

The difference in knowledge of the prehistoric landscape compared, for instance, to the Levadeia *chora*, is probably not actually due to a less intense occupation of the Levadeia area in the prehistoric period (although the area of Levadeia was not characterised by the presence of a large nucleated centre, as was Orchomenos), but to a bias in archaeological knowledge due to strongly prehistoric-oriented research in the Orchomenos area, due to the importance of the main settlement site (Orchomenos itself) during the Bronze Age.

Compared to the extension of the *chora*, there is an extremely low number of known Greco-Roman sites (a much different behaviour pattern in the data as compared to the Chaironeia *chora* -chapter II.3.3-, with much fewer data for the extension).

In fig.4 we can see the relationship between known archaeological sites and the distance from the modern road network. Only 16 components (excluding those related to the city site) of 70 are within a distance of 300m from modern roads. Unlike the Levadeia *chora*, for instance, in the area of Orchomenos, proximity to the modern road network apparently did not bias the discovery of archaeological data (though it is biased by other factors, and in particular by personal interest oriented research, as seen above).

ANALYSIS OF THE CHORA LANDSCAPE

PREHISTORIC PERIOD

The analysis of Prehistoric settlement in this area is in tandem with consideration of the whole Copais basin (or at least its Northern edge) for the Prehistoric period (see figs. 6 to 9 in chapter II.3.1).

Lauffer (Kopais I: 163-4) remarks that only two other sites in the Copais are similar to the *magoula* site by Pyrgos (see appendix I.4 - components O_62 to O_66) in shape and height: Nisi by Stroviki (components NC_1 to NC_4) and Gla (components NC_to to NC_72). Other places in N Copais, such as the ‘isle’ E of Spitia-Katavothra (see chapter II.3.6), are linked to the border by land, or, like the large *magoulas* close to Kokkinon, Topolia-Kopai and Tourlogiannis, are spurs of higher mountains.

The shifting of settlement along the N edge of Copais, between the sites of Pyrgos and Magoula Pyrgos can be noted (*magoula*: Neolithic and EH, less strong MH and LH - Pyrgos: MH and LH stronger).

MH settlement sites are usually known in a slightly elevated location (see MH material, in a low location that could represent a burial area - component O_61 as well as component O_4, MH burial at Orchomenos). MH

habitation sites known are: Orchomenos at the foot of the Akontion (*component O_3*); Old Orchomenos (*component O_40*); Pyrgos (*component O_50*) and Pyrgos Magoula (*component O_64*), which finds a parallel in the Magoula Balomenou site in Chaironeia area (*component CH_23*). Others are simply activity foci of unspecified character (*components O_30 and O_61*). The MH settlement at Orchomenos (*component O_3*) can be connected, as Tzavella-Evjen did, with the MH settlement found at the other extremity of the Akontion ridge, at Magoula Balomenou site (*component CH_23*). Lauffer (Kopais I: 131ff) suggests that the power and strength of Orchomenos over the Western Copais in the MH period is due to the fact that it controlled part of the Kephisos valley that lies higher (protected by lake water). He says that the other settlements in the MH period (in the NW gulf (Pyrgos and Polygira, and Stroviki) and in the SW (Kalami, Koroneia and Agoriani)) had a much smaller area available for agriculture than did Orchomenos (the Kephisos lower valley), and that they were in a less secure position, therefore never reaching the level of power of Orchomenos. Lauffer therefore gives greater importance to the fact that Orchomenos controlled the lower Kephisos valley, also giving it the strength to build up Minyan power and control over the rest of Copais (dikes, katavothrai, acropolis of Ptoion, etc.), unlike Kahrstedt (AA 1937: 9) who identifies Orchomenos' power with its control of the NW gulf (Pyrgos, Polygira, Stroviki, etc.). With regards to Lauffer's point; no other Copais *polis*, not even in later periods, had all this land available; they always had to recover land from water¹⁷.

The LH fortified sites known in the area could be considered part of the Mycenaean fortress system controlling Copais (Lauffer Kopais I, Fossey 1990d), located mainly in the NE bay (see chapter II.3.6).

Many cave sites are known from the area of Copais, some of which are published, some others simply reported without details (in this *chora*, Mavrospilia – *component O_67*), and others known from personal communication only and not yet investigated (but we would prefer not to include them in the archive for heritage protection reasons, as requested also by local authorities).

As noted by many scholars (Lauffer *in primis*), this area of the Copais basin is characterised by the presence of low *magoulas*, mainly of antropoc origin, typical of the Thessalian landscape and usually marking Prehistoric habitation sites or tumuli. They form what we could call a distinctive 'magoula landscape'. Different *magoula* sites have been visited by archaeologists, and we thus have many sites called *magoula*, most of the time difficult to identify and to distinguish one from the other (see *components O_62 to O_65, O_22, O_68 to O_70, O_25*). Sotiriadis had noticed a lot of small tumuli all around the area, the tallest being the Orchomenos tumulus, followed by the Vranesi tumulus, slightly lower, and a lot of other small 'bumps', protruding slightly from the surface.

¹⁷ In addition, Orchomenos probably also had the whole area in front of it, to its S, part of the Copais basin but not wetland (probably only seasonally marshy).

Within them he noticed the presence of Hellenistic (Classical?) and Roman sherds on the surface, probably to be related with burial areas (apparently the lower areas are Historical period burials, the higher could be real Prehistoric *magoula* sites). Some *magoula* sites were also noted and visited by Knauss et al. (Kopais 3). Some of the components representing *magoula* sites were given an 'unknown' chronology¹⁸, so do not appear in the maps per period. In the absence of further research, we could add them either to the Prehistoric landscape picture, or rather to the Historical one, if they mark tumuli/burial sites.

GRECO-ROMAN ANTIQUITY¹⁹

Town level

The *polis* of Orchomenos lies in a strategic position with regards to routes (fig.1) and the control of the whole Copais basin²⁰. It is also located in a position dominating the wider area of the basin (to its S) that is free of water most of the year. Historical sources tell us that the city tried to gain control over the whole Copais area during the Archaic period. At that time, Orchomenos dominated Chaironeia²¹ and Hyettos²², Olmones²³, Hyria²⁴, Levadeia²⁵, and probably Koroneia²⁶ as well as Copais. Links with Haliartos are also probably implied in the connection of the mythical genealogies of the two *poleis*²⁷.

Village level

There are indications of early occupation sites: Orchomenos, Pyrgos, Polygira (Aspledon and Tegyra of ancient sources – see above for identification issues), which could have been acting as *proto-poleis* (Bintliff 1994b, see chapter III.2). From the late Archaic - early Classical period onwards, apart from the *polis* of Orchomenos, settlement sites might have been located at Pyrgos (*components O_54 and O_55*), Polygira (*components O_33 and O_34*), and only probably at Avrokastro–Mavromandili (*components O_46 to O_49*).

¹⁸ Since sherds are not reported and these *magoula* sites were noted only as characteristic topographical features.

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

²⁰ See appendix I.4 –ORCHOMENOS- for *polis* history and details.

²¹ See chapter II.3.3.

²² Hesiodus *frg.144*; Pausanias IX 36.6. See Wilamowitz 1922: 19.

²³ Pausanias IX 24.3.

²⁴ Hesiodus *frg.143*.

²⁵ Wilamowitz 1922: 18f.

²⁶ See chapter II.3.1.

²⁷ We know from Pausanias (IX 34.5) that the mythical Orchomenian tradition (dating back probably to the Archaic period) claimed under its jurisdiction areas including the Laphystion mountain, Koroneia and Haliartos. The Tilphoussion oracle, for instance, was probably under Orchomenian control in Archaic times – see Buslepp, ML 1897-1902, vol.5: 196 s.v. *Teiresias* and Schachter 1994 s.v. *Teiresias* (Orchomenos).

Aspledon and Tegyra, whatever sites they would have to be identified with²⁸, never reached the status of *polis*.

Rural segment

The rural segment is poorly known if one excludes the evidence at the so-called site of Old-Orchomenos by the edge of the lake (*components O_23 and O_42, O_43*) and the little other historical evidence known from sites with mainly Prehistoric occupation.

Burial areas

Burial areas related to the *polis* of Orchomenos are known in its immediate surroundings, towards the plain (in the area where the village extends today). The burial landscape is then enriched with the tumuli common in this area of Copais, some of which are Prehistoric *magoula* sites (see above PREHISTORIC PERIOD), while some others are (or could be) recognised as burials of Historic (Greco-Roman) date.

Cult places/Religious Areas

Apart from sanctuaries and cult places known from the Orchomenos city site (in particular the sanctuary of Asklepios – *Asklepieion* – see above under Orchomenos) and its outskirts (a cult place attributed to the cult of Herakles at the source of the Melas), few extra-urban sanctuaries are known (at the site of Polygira - Apollon Tegyraios? -, at Tsamali) or hypothesised (at Magoula Pyrgos and Old Orchomenos). The two supposed cult places at the source of the Melas and by Tsamali are said to be connected by the road going around the bay at a higher level (see above for the cult places and below for the road).

Forts and Fortifications

The only fortifications datable with certainty to the historical period are the Hellenistic defensive walls with towers above Orchomenos (on the E summit of the Akontion ridge – *component O_16*). Probable fortifications of historical date have been noted at the sites of Avrokastro-Mavromandili [AE458] and Pyrgos [AE605].

Other activities / unspecified activity areas

Undetermined activity foci were noted, which can not be assigned any character at the present stage of research. The majority of these might constitute part of the less-known rural landscape. Unspecified activity foci are also known at the edge of the Copais basin (sites detected by the Munich team led by Knauss), probably linked to the exploitation of the swampy lake resources also in the Greco-Roman periods.

LONG TERM SETTLEMENT TRENDS IN THE CHORA LANDSCAPE

Just as in Chaironeiake the landscape was marked by the presence of a river (the Kephisos), the *chora* of

Orchomenos is characterised by water in the form of swamps, marshy river flows and the Copais lake.

The *chora* of Orchomenos extends on the two sides of the Tsamali bay, and yet it is constituted also by the area to the S of it, bordering the lake, the so-called Hyppia plain²⁹, as well as by a wide (probably dry³⁰) area to the S of Orchomenos, extending probably as far as the village of Vranesi/Ag.Spyridon, or even further S, to the village of Ag.Dimitrios (see also above, discussion for the Prehistoric period). The ancient city faced S, towards an area probably free from water and potentially highly fertile, although occupied by seasonal and/or local marshes in wet periods (see above –RESOURCES- and appendix III).

The modern centre in the geographical area of the ancient *chora* is also Orchomenos, formerly Skripou (one of the two original constituents of modern Orchomenos, the other being Petromagoula). The importance of Skripou in the medieval period as a centre of Byzantine Greek population (the Middle Byzantine monastery of Skripou) shows a possible continuation from antiquity³¹, abandonment and recolonisation by an Albanian *katun* (Iskres) which continued into the modern village (Koder – Hild 1976).

The area in the Copais plain is occupied today by a series of villages S of Orchomenos (Ag. Spyridon, Karya, Ag. Dimitrios). Although this area and its settlement is partly associated with the total drainage of the lake (at the end of the 19th century), it was also dry land in antiquity, forming a plain extending S of the ancient city (see above). This is also indicated by the existence of post-medieval villages in the area, predating the lake drainage. Ag. Dimitrios is recorded in the Ottoman archives from 1466 to 1570, then 1642-1688, as a Greek village. The large size of the village of Ag. Dimitrios even in 1466, and its lakeside position, as well as its survival through the troubled 17th and 19th centuries, indicate a settlement chamber at the W edge of lake Copais even before the drainage³². The village of Karya could also have an Ottoman predecessor (Kiver/Kirnoz) but the attribution is not sure (Bintliff-Kiel in preparation). Also in antiquity, the area immediately S of Orchomenos was most probably controlled by the city, and one might suppose the existence of one or more small hamlets, exactly like those that exist in the traditional settlement pattern (Ag. Spyridon, Karya). In the PG and G periods, the existence of a tumulus by the modern village of Ag.Spyridon (Vranesi tumulus – *components O_26 and O_27* and no.19 in fig.2), which could be related to another small settlement (Fossey 1990d) rather than directly to the growing settlement of Orchomenos, might be linked to this hypothesis. This potential settlement could in any case fill the settlement gap to the S of Orchomenos visible in fig.5.

²⁹ See map in Knauss et al. Kopais 3: 183 fig.6.8 and fig.1 in this chapter.

³⁰ See chapter III.1.

³¹ Though almost dead by Roman imperial times, and deserted in the Early Byzantine period (see Koder - Hild 1976).

³² For Ag.Dimitrios see also chapter II.3.1.

²⁸ see appendix I.4 for discussion on identification

The edges of the Tsamali bay are shared today between the modern villages of Pyrgos and Dionysos (formerly Tsamali). For both villages it seems that there is no Ottoman predecessor (or that it has not yet been identified). The Frankish tower by the contemporary village at Pyrgos, however, indicates a settlement chamber in this area. As for the territory of the modern village of Tsamali/Dionysos, the only identified Ottoman village in the area is Agio Nikola/Kambana, associated with the famous Byzantine church of Ag. Nikolaos sta Kampia (12th and 13th centuries) (Bintliff-Kiel in preparation). The Byzantine and Ottoman occupation in this area, but also the possible continuity of the Greek population (reflected in the Greek name of the village), indicate the existence of settlement chambers and potential gaps in antiquity. Bintliff (1994b: fig.20), as the result of a Thiessen polygons analysis, already noted possible settlement chambers available around the bay. The settlement site of Pyrgos, situated opposite Orchomenos on the axis of the Tsamali bay, was occupied in ancient periods (*components O_48 to O_56*).

This Eastern area of the bay constituted a settlement chamber, since the Late Neolithic and Bronze Age (with the sites, both contemporary and alternate, of Pyrgos and Pyrgos *Magoula*, at the E edge of the Tsamali bay), also providing certain evidence of occupation at least in the Classical period. The NW edge of the bay would likely constitute a settlement chamber (fig.5), with relevant changes in settlement location though, if one considers the modern village of Dionysos, the Ottoman village of Agio Nikola/Kambana further up on the mountain, and the earlier Polygira (Tegyra?) settlement, archaeologically attested since Prehistoric times (*components O_28 to O_34*).

In the upland areas above the Tsamali bay to its E, one can probably recognise another small landscape in the area of *Erima Kalyvia* (fig.5). As Fossey notes (1988: 361), *Erima Kalyvia* was probably an offshoot of the village of Kolaka on Mt.Chlomon to the N, and the people of that village cultivate all the land in this area. A settlement might also have existed in this area in the Prehistoric period³³, and even later, since the area could

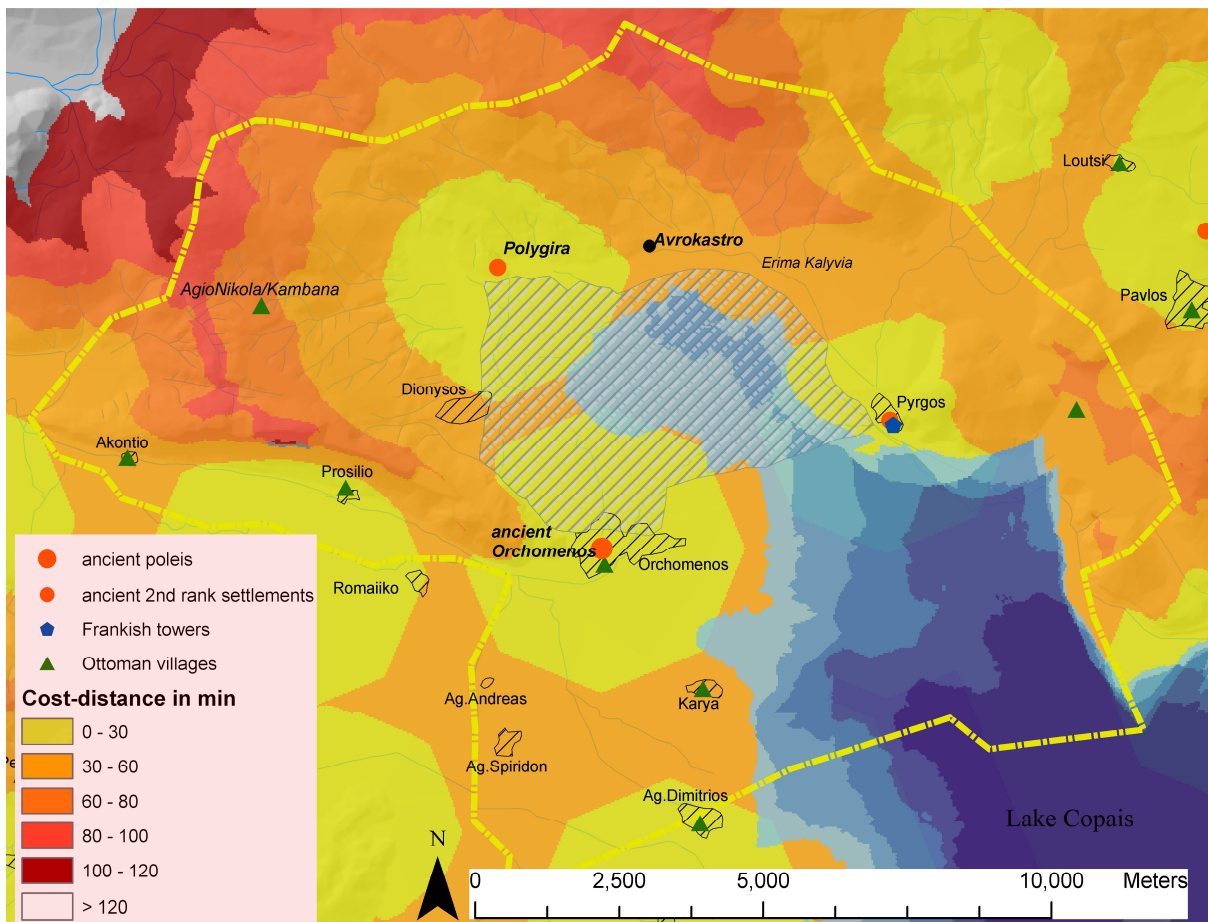


Fig.5. Classified surface representing the cost-weighted distance (1/2 h walking and further ranges) from recognised 1st and 2nd rank ancient settlements (represented by larger and smaller dots). Areas without dots indicate potential settlement chambers. Ottoman villages and Frankish towers have also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

³³ A prehistoric burial place is known in the area (*component O_47*).

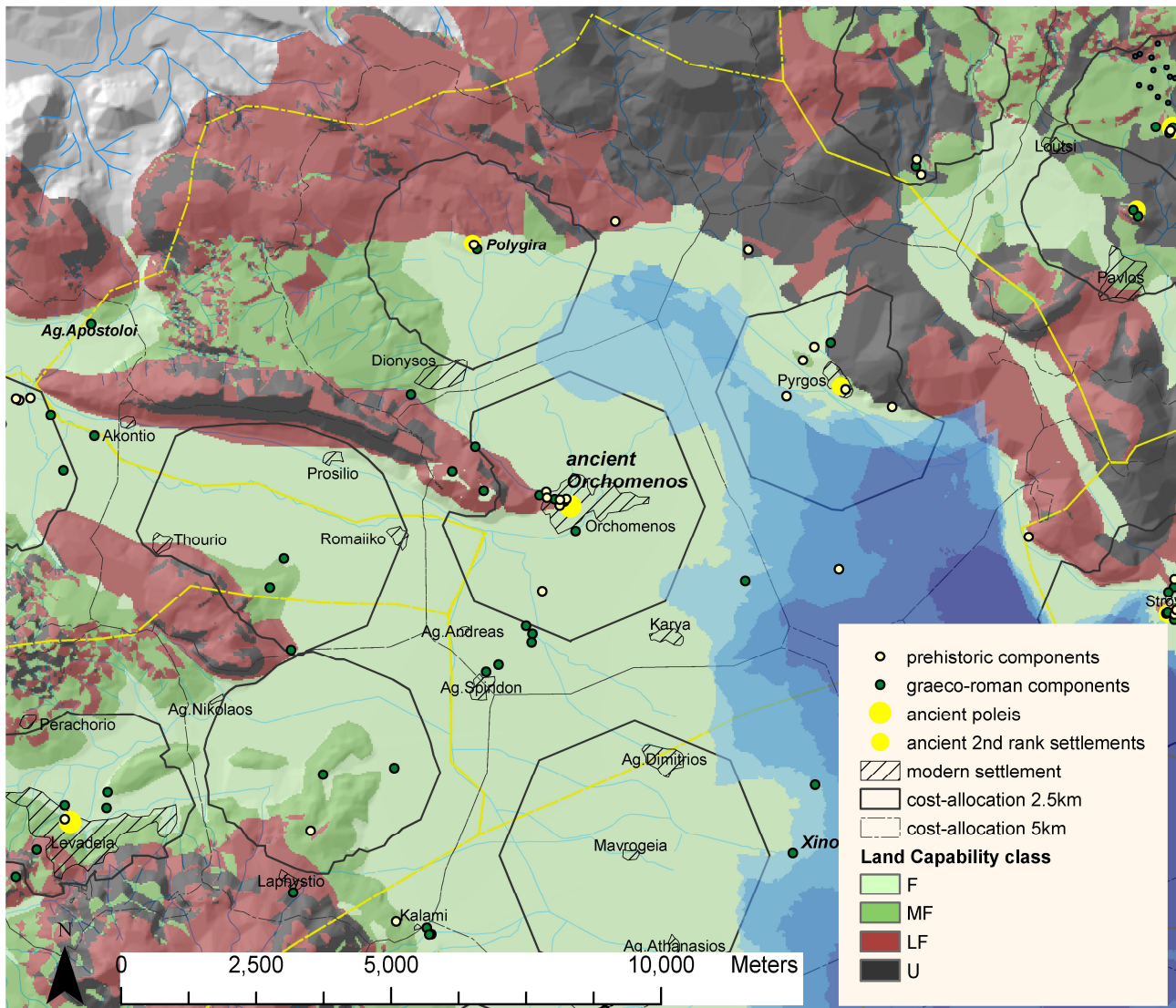


Fig.6. Map showing the Greco-Roman settlement network, the polygons resulting from the cost-distance analysis (marking half an hour and one hour walking time distance) and dots representing the known archaeological components (same as in fig.2), with land capability information underlain.

constitute a suitable small settlement chamber with fertile land available as well as grazing zones (see RESOURCES above and fig.6). In some periods of ancient history, a settlement (or at least a fortified site) was located at Avrokastro-Mavromandili (*components O_44 to O_46*), further to the W. Although the two locations (Erima Kalyvia and Avrokastro) are quite distant from each other, they could constitute an indication of the possible existence of a further settlement area in the upland NW of Tsamali bay, as the gap, albeit small, left between the two potential settlement areas centred on the locations of Polygira and Pyrgos seems to attest (see fig.5 showing the application of a cost-distance analysis³⁴). Cautiously though, I prefer not to locate a potential 2nd rank settlement in this area, since Avrokastro could even be part of the Polygira settlement chamber (being 35 minutes walking distance). Actually, Fossey suggests the possibility of a shifting in occupation between Polygira

and Avrokastro in Hellenistic times, though the data are too poor to support this (see appendix I.4).

Finally, the Akontion mountain behind Orchomenos, suitable for a pastoral economy, is occupied today by two villages, Akontion (formerly Visvardi) and Prosilion (formerly Velis), both probably going back to the Ottoman period. Being situated along the Kephisos valley, this area belongs geographically to the Chaironeia area (and its settlement history has been discussed in chapter II.3.3), although it might have been controlled by Orchomenos in some periods of history. In fact, a strategic reason might have led Orchomenos to seek for control of the left (N) bank of the Kephisos river: the *leophoros* mentioned by Pausanias (X 34.7 – X 35.5) and leading to Opus in Lokris would probably cross that area, running along the Akontion ridge (Kopanias 2008: fig.5 – see here fig.6)³⁵.

³⁴ See chapter II.3.1 – LONG TERM SETTLEMENT TRENDS.

³⁵ The road was still in use in the 19th century, leading to the village of Bogdanou (ancient Hyampolis), as it is marked on *La Carte de la Grèce* (1852).

