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## Chapter V: Reconstruction of the settlement

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### Citation

Wijnen, M. H. J. M. N. (1981). Chapter V: Reconstruction of the settlement. In *Analecta Praehistorica Leidensia XIV : The early Neolithic I settlement at Sesklo: An early farming community in Thessaly, Greece* (Vol. 14, pp. 50-55). Leiden University Press. Retrieved from <https://hdl.handle.net/1887/27913>

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**Note:** To cite this publication please use the final published version (if applicable).

## RECONSTRUCTION OF THE SETTLEMENT

One of the goals of this thesis is to arrive at a better understanding of the Early Neolithic I at Sesklo. In the previous chapter we discussed the artefacts recovered from the strata which are believed to correspond to this period, together with the contexts of their discovery.

The following point requiring our attention is the environment, man-made and natural, of the Early Neolithic Sesklo people, i.e. we want to know what kind of dwellings they lived in, how large the settlement was and in what sort of setting it was located. In short we will give a reconstruction of the settlement as far as the data permit us, which is to a limited extent only.

#### v. 1. *Dwellings and settlement*

Having made an inventory of the artefacts left by the Early Neolithic I inhabitant of Sesklo, we will now have a look at his dwelling. It probably consisted of a one-roomed quadrangular structure. There are no complete house plans, but the few soil traces give us the impression that they measured some 3.50 x 4.50 m. During the Pre-Pottery Neolithic it was cut into the soil, the walls being built in a wattle and daub construction. During the later part of Early Neolithic I, the foundation consisted of a low wall built of a single row of large stones, often including grinding slabs. The house walls were still made in wattle and daub. Floors were made of clay, sometimes reinforced by small pebbles. The roof was probably constructed of branches, twigs, mud and reeds. Hearths were located in a kind of courtyard.

Regarding the size of the settlement, vestiges of Pre-Pottery dwellings have been discovered both on the Akropolis and in section C. We assume that the Pre-Pottery settlement covered a small area, having

a diameter of some 100 meters. Debris of the first pottery bearing phase has been recovered on the Akropolis, in section C and in section B. The extent seems to have been larger therefore, with a diameter of around 200 m. We do not know whether the entire surface was built up or whether an open space was left between the dwellings for other purposes. We are completely ignorant of the density of the population since we do not know how many people lived in one dwelling; moreover we do not have any data on the number of houses inhabited at any one time.

#### v. 1. 1. *Location and physical environment*

The site is situated in an area of gently sloping hills; only in the Southeast do they rise fairly steeply. There is no flat ground in the immediate vicinity. The Akropolis is bordered by two streams, which unite a little further downstream. The settlement is built on slightly sloping terrain - its elevation is between 155 and 170 m ASL. The land to the West and North undulates gently downwards towards the plain and the sea respectively. It is true that erosion has changed the landscape since prehistoric times, but it seems certain that there was no level ground during that period either.

The geology of the surroundings of Sesklo is being studied at present. It proves to be rather complicated. A short general account of the geology of Eastern Thessaly by Th. Doutsos is included in this thesis as Appendix III. For details on the areas bordering the region of Sesklo the reader is referred to Schneider (1968), Voliotis (1973) and Frost (1978). Sesklo itself is situated in a zone of neogen; the area is bordered by a zone formed by marbles of the Crystalline socle (the Chalcodonio hills) and the Holocene deposits in the plain of Larisa.

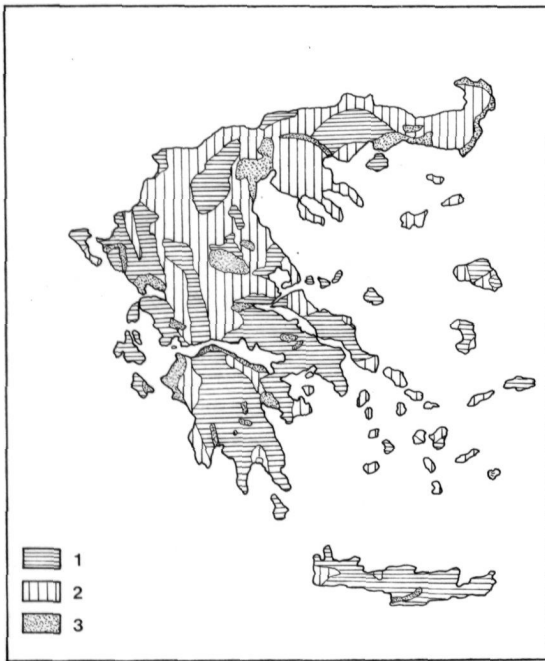


Fig. 15 Distribution of soil parent materials in Greece (after Anastassiades).

1. Regions with limestone predominant parent material. 2. Regions with non-limestone predominant parent material. 3. Regions with alluvial predominant parent material.

Although no pedological research has been carried out it is noticeable that the region has at present different soils - a heavy red clay, resembling the terra rossa; silty yellow clay, composed of weathered schist and a reddish - grey silty clay, containing a large quantity of mica flakes. Whatever the exact soil types may be, it is certain that they are fertile and can support the growth of plants, provided there is a good water supply.

At present most of the water supply in the area is provided by springs. There is one immediately next to the Akropolis and there is one in each of the streams, very close to the site. This makes the streams more or less perennial. Otherwise they are rain-fed - as a result of which the flow can be fairly great during periods of heavy rainfall and when the snow in the hills is melting. In summer the flow is

extremely small (restricted to the water provided by the springs). In years when the amount of precipitation is extremely low they dry out.

#### v. 1. 2. *Climate*

At present the area of the Sesklo settlement has a maritime Mediterranean climate. The average yearly precipitation amounts to 514 mm and the average temperature is 16.9°C. (Walther and Lieth 1964). Summers are dry and hot with an average August temperature of 26.6°C and a precipitation of around 10 mm. Winters are fairly cold and wet: the average temperature of the coldest month is 7.0°C, the precipitation in the wettest month is around 100 mm. In the hills winter often brings snow and frost. The prevailing winds are easterly in summer and westerly in winter.

During Early Neolithic I the climate was different. The last part of the 7th millennium/beginning of the 6th millennium BC falls within the Boreal Atlantic transition. Yearly precipitation increased during this period until the climate was slightly more moist than it is at present.

About temperature we are less certain. Bottema (1974, p. 158-159) argues that there are indications of a fall, but that this seems highly improbable since temperatures in West and Central Europe as well as in the Near East and North Africa become higher. He suggests that the temperature remained unchanged and was about the same as at present.

#### v. 1. 3. *Vegetation*

The present vegetation of the Sesklo area probably bears little relation to that of Early Neolithic. It has a largely maquis vegetation, except for the areas where heavy erosion has created badlands. In addition the fields have been enriched during the last ten years by the planting of numerous almond orchards. So few indications can be found.

Neither has it been possible to retrieve pollen cores in the immediate area. Therefore we have to rely on diagrams from Lake Vивиis, which is nearby, (Bottema in press) from Lake Xinias in South Thes-

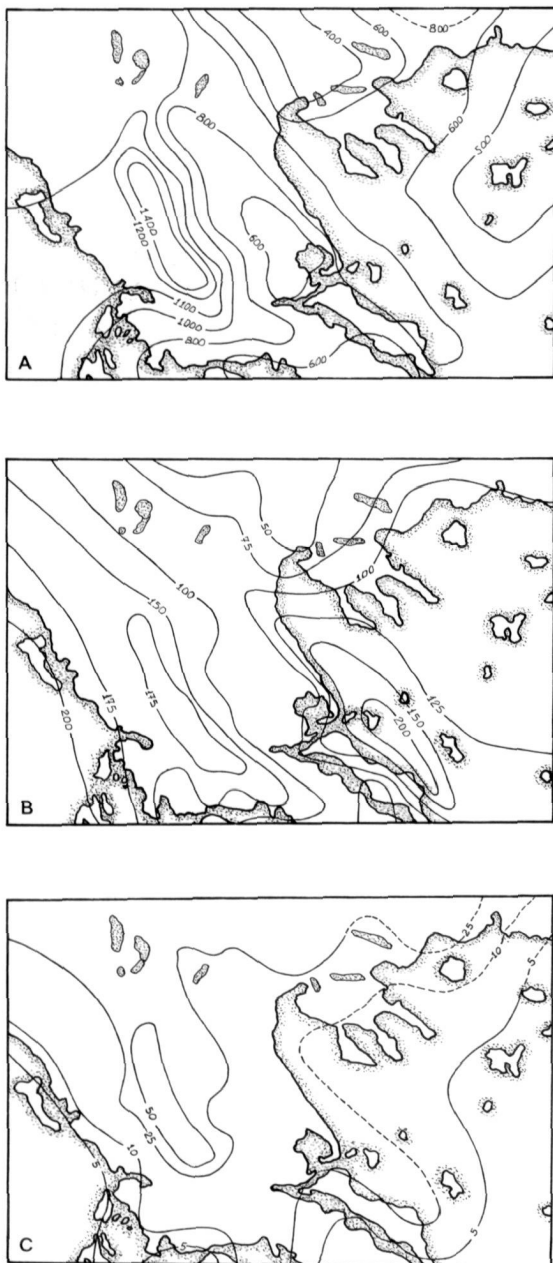


Fig. 16 Distribution of precipitation in Northern and Central Greece.

- a. average annual precipitation in mm.  
 b. average rainfall in December.  
 c. average rainfall in July.

saly (Bottema 1978), from Lake Kopais in Boeotia (Greig and Turner 1974) and from different sites in Macedonia and Epirus (Bottema 1974). The latter diagrams point to dense forests of (deciduous) oak. The Lake Kopais diagram (Greig and Turner 1974 p. 190) indicates, for the beginning of our period, an oak forest with a considerable amount of scrub vegetation with juniper and pistachio - an open forest with shrub clearings. The diagram for Lake Viviis (Bottema in press) unfortunately gives no clear information on the Early Neolithic. That of Lake Xiniis (Bottema 1978 p. 19; Bottema, in press) shows high values for *Quercus cerris*, together with relatively significant values for *Pistacia*, *Juniperus* and *Poterium*. We think that the diagrams for both the Boeotian Lake Kopais and the Thessalian Lake Xiniis reflect the vegetation of the lowland and hilly areas of East Thessaly, Sesklo included, better than those from Macedonia and Thrace.

From Sesklo there are some scanty data from seed identification and wood analysis. Among the carbonised seeds there were acorns and pistachio. The wood charcoal was of oak.

It must be stressed that a slight change in climate - e.g. a few consecutive years of low precipitation - will have caused changes in the vegetation, since the equilibrium is very delicate in this area.

#### V. 1. 4. Fauna

We are able to reconstruct the faunal community of the Sesklo region during the Early Neolithic to a limited extent only. The skeletal remains are restricted to those left over after food consumption and to those used as implements. In the former case the bones were often completely gnawed and could not provide much information. Moreover, not all wild animals were eaten. As it is, the faunal remains include mostly larger mammals, a few rodents and a few of the smaller carnivores, but no large carnivores or small rodents, let alone insects (Schwartz, Appendix II). The bones of small animals may have been overlooked in excavation. Regarding the larger carnivores, we do not know the reason for the absence of these bones. The material comprises: red deer, roe deer, badger, hare, wild boar, wild cat,

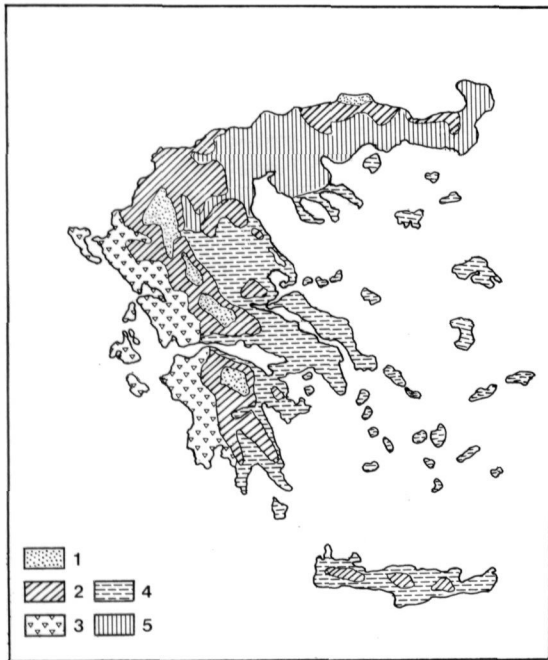


Fig. 17 Generalised vegetation zones for Greece (after Anasasiades).

1. Alpine, subalpine and beach belts. 2. Chestnut belt. 3. Ionian belt. 4. Aegean belt. 5. Northern belt.

lynx, fox, birds (unidentified species), turtle, crab and a few fish vertebrae. The shell sample included quite a lot of terrestrial snails, several *Cardium* and a few *Spondylus* shells.

Concerning the biotope of several of these species Clason (1978 p. 104) remarks: "Red deer can live in woods as well as in open plains. The roe deer lives at the edge of a wood, young woods with much undergrowth or in the open plain if there is enough shrub cover. Wild cat and badger can be found in mixed deciduous woods, but also need clearings in the vegetation. The fox can live in a variety of biotopes, but likes dry terrain." Hare is well known for its preference for open spaces with some woodland for shelter. Wild swine are generally found in open forest. From the limited information we may conclude that in the immediate vicinity of Sesklo such biotopes existed: both wooded areas and open spaces could be found.

Crayfish and crabs were probably found in the streams. Turtle may have been caught in Lake Vivis. The fishbones have not been identified - they may be either freshwater or marine.

#### v. 2. Subsistence patterns

Due to the fact that only an extremely small quantity of seeds were recovered from the Early Neolithic I strata at Sesklo, we can only say that from the beginning of the Neolithic onwards seeds of domesticated crops were used. These include emmer, einkorn, barley, peas, lentils and other pulses (J. Renfrew 1966; Kroll 1979 pers. comm.). Moreover nuts, herbs and wild grasses were gathered, including pistachio and acorns.

The sample of animal bones shows that from the first Neolithic period onwards meat was largely supplied by domesticated livestock (Appendix II). Caprovines are the most important (60%), followed by pig (ca 19%) and cattle (ca 14%). Dog is represented by three bones only. Due to the rather small sample it has been difficult to ascertain the age distribution, but we understand there was a special preference for butchering juvenile animals. The herds were mainly kept for the production of meat. Milk, wool and possibly traction may have been secondary purposes. The bone sample is too small and fragmentary to determine the number of individuals. It is however most likely that the herds were small - just large enough to provide a sufficient meat supply. In view of the rather more wooded aspects of the country we think that the herds were grazed partly in the immediate vicinity of the settlement, e.g. on stubble and partly in nearby clearings. Halstead (1980) has suggested that dung may have been a secondary product.

The wild mammals were of little importance in the diet, although they may still have played a role in times of shortage - e.g. during periods of severe drought. Most of the bones of wild animals were of hare (30 or 4.2% of the sample), an animal which could easily be trapped. Second comes red deer (14 or 1.9%) and third roe deer (7 or 1%). It is theoretically possible that large wild animals were skinned and de-boned at places away from the settlement,

but the tool-kit does not provide any evidence for this.

Only a few fish bones of undetermined species have been recovered; this may be partly due to the excavation technique. Although we do not suppose that fishing was of great significance in subsistence it may have been more important than is suggested by the remains. Small fish may have been prepared in a way which leaves no bones. Larger fish may have been prepared by deboning and smoking, salting or drying before they were brought into the settlement. The bones could also have been gnawed away completely by dogs or scavengers. The quantity of shells of *Cardium* and other marine molluscs suggests either contacts with people in the coastal area or some coastal activities by the inhabitants of Sesklo themselves, possibly including sea-fishing.

Water for drinking purposes was taken from the nearby springs, some hundred meters away. The flock was probably watered in the streams. Water used for mixing clay and other purposes may either have been taken from the springs or from the streams.

### v. 3. *Raw materials*

We can divide the raw materials into two categories: (1) those used for building and (2) those used for the manufacture of utensils and other objects.

The necessary building materials were apparently all found in the vicinity. Large stones, used to lay the foundations, and smaller pebbles, used to strengthen the floor and the courtyard, were readily available in the area: well rounded stones were taken from the stream beds. In addition abraded or broken grinding slabs and hand-stones were used. Tree trunks, branches and twigs, used in wattle construction for walls and roofing may be rather scarce in the region now, but we have to remember that Greece was more wooded during the Early Neolithic. We think therefore that the necessary branches and twigs could easily have been obtained in the immediate vicinity. Reeds, also used as wattle and certainly in roofing, are at present available near the springs in the stream; possibly they also grew at these spots during the Early Neolithic. Otherwise

they were certainly present on the slightly marshy banks of Lake Viviis and at the riverine outlets on the seashore - both at some 1,5 hours walking distance. As far as daub is concerned, the Sesklo area is even now well known for clay of high plasticity. To make the daub, clay was mixed with chopped plant remains, stems and chaff- the whole looking much like chopped straw. Unfortunately the plentiful remains have not been investigated.

The raw materials used to manufacture utensils and other objects are partly local, partly imported from other places. All have been discussed in the previous two chapters. We have seen that the clay used to manufacture pottery and the schists, riverine boulders and cobbles used to make hand-stones and other utensils were all of local provenience. The chert probably came from the Larisa region, whereas the obsidian is most certainly from the island of Melos. The volcanic rock used to manufacture grinding slabs, has been identified as coming from the volcano of Mikro Thive. The origins of both the greenstone and the marbles is not entirely certain, but we think that the former came from the hills in the region of Pharsala, which have good serpentine and green jasper sources. The marbles may be East Thessalian. Neither steatite nor turquoise can yet be traced.

If we look at the distances of these places from Sesklo we see the following. (1) The volcano of Mikro Thive is at a distance of some 10 km as the crow flies. Taking into account the fact the road goes through hilly land we suppose it was at two and half hours walking distance; so the rock could be carried to the settlement within a day. (2) The Larisa region is at a distance of 50 km over the plain, which may involve easier walking - but it would still be some ten hours walking distance. (3) The Pharsala region is at a distance of some 35 km and again involves crossing the hills. It should be around nine hours walking distance. (4) Melos is an island some 230 km away. This involves either a long voyage or a long trip over land and then direct crossing by sea. This certainly shows that the inhabitants of Sesklo had contacts with other people - whether they went themselves to the other regions to look for the necessary raw material or whether they met with inhabitants from other regions and exchanged goods - e.g.

skins, salt or food for other requirements. This brings us directly to the point to be discussed in the next chapter: what kind of neighbours did they have

and did these neighbours live in similar or different circumstances.