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## **A physicochemical study of Medieval and Post-Medieval ceramics from the Aegean**

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## **CHAPTER 4      A SHORT OVERVIEW OF ETHNOGRAPHICAL RESEARCH IN THE THREE STUDIED AREAS**

### **4. INTRODUCTION**

In this chapter, ethnography allowed me to gain an improved understanding of culture, social dynamics and cultural differences of the potters from the three studied areas. The purpose of this chapter is to provide a better understanding of the artifacts and the people who made them. As such, it helps to reconstruct the cultural milieu, the level of technological knowledge, the economic patterns, perhaps even human behavior. The application of ethno-archeological approach on ceramics yields fruitful insights into the pottery manufacturing, patterned human behavior and material culture. It normally offers descriptions of manufacturing techniques, vessel functions, aspects of division of labour, social organization of production, spatial aspects of production and distribution. In a broader perspective it involves social, ecological, economical and functional factors (Kramer 1985, p.77).

In many parts of Greece, there were pottery workshops that produced objects of high aesthetic value. On many islands, pottery remains an important aspect of their identity. The ceramics under study are characteristic for the three regions, distinguished as they are by their colours and decorative patterns. Even the words used to describe them revealed deep historic origins and subtle nuances. In the three areas under study there were permanent production workshops that operated all year round and the duration of the work was from sunrise to sunset. The practice became a long-standing tradition which permeated the life of the local community (Vogiatzoglou 2009).

Usually, pottery workshops were often owned by artisans but there were also rented workshops. The facilities were always very simple but properly organized for production. The only complex structure, the furnace, was built by expert craftsmen. Kiln builders were not permanent members of the production work team, but worked ad hoc at each workshop facility. Until a few decades ago, pottery was a particularly laborious and demanding art. The soil to be transformed into clay had to be dug out of the hard earth, crushed into small pieces, spread out to dry, cleaned of foreign bodies, kneaded with feet and hands. Making pottery on the foot wheel required great physical strength, endurance, a steady hand, patience, experience and above all passion expressed through creation. The decoration, glazing and firing of the pottery were also important tasks for success. In the workshop there was a division of labor: someone worked the soil and turned it into clay, another shaped the clay and cut it into lanes, someone else gave the pieces of clay to the master craftsman who gave the final shape. There was also an expert for firing and two other young people carried the soil from the mountain (Vogiatzoglou 2009).

The workshops are organized in the context of homemaking and the art of the potter is passed down from father to son. Young people who were interested or encouraged in continuing the profession of their fathers and grandfathers (pottery making in Greece is mostly a male craft). Numerous young people worked within the workshops and learned the craft, and some of them

went on to establish their own workshops. Technical knowledge was passed orally and often secretly to apprentices and future successors of the art (Vogiatzoglou 2009).

Knowledge of social continuities and discontinuities matched by an examination of ceramic samples may help to establish development stages and order them chronologically. The artifacts gathered in the archaeological investigations reflect human behavior, surrounding environment and ecological situation of the past. Upon concluding this PhD thesis, I will combine this ethnographic data with the archaeometric data in order to reveal aspects of the pottery culture of the past in the three centres and highlight resemblances and differences and their potential link to social, economic and artistic patterns. Finally, I will compare the ethnographic data with the archaeometric data in order to enrich my knowledge about the provenance of the raw materials in the three studied areas.

#### **4.1. THE MODERN POTTERY OF EUBOEA**

The potters' workshops are clustered in the eastern part of town on Arethousa Street, the road which leads southeast to Vasiliko and Aliveri. This is a strategic location in the industrial part of town, because the clay is obtained from Vasiliko and the material for the slip comes from Aliveri (Matson 1973).

The clay used by the potters, brick-makers and roof tile producers comes from Vasiliko, 10 km southeast of Chalcis in Euboea. The deposits are on the fertile Lelantine plain over which ancient Chalcis and Eretria fought. It is considered to be an exceptionally fine clay and is sold even across the Euripos Straits at Aulis on the mainland. Possibly the good clay source is one reason for the production of such excellent pottery from Early Helladic to Geometric times at Lefkandi, a shore site near Vasiliko. At Eretria, well known for its fine ceramic products in antiquity, clay is brought along 12km distance from Vasiliko as Eretria had no clay of her own (Boardman 1964; Matson 1973).

The pale brown Vasiliko clay is an alluvial deposit of materials weathered from the metamorphic outcrops of phyllites, serpentine rocks, and sandstones of central Euboea. Philippson describes the region (Philippson 1951). The limestone hills which he mentions had little effect on the clay deposit as presently constituted, for there are only occasional grains of calcite in the clay, fortunately for the potters who can avoid lime 'pops' (Matson 1973). Angular quartz grains, some very fine sandstone, phyllite, limonite and an occasional feldspar grain appear in the thin section of Aulis clay. Micaceous materials are present in a very finely divided state. Both muscovite and biotite occur, but most of the flakes are derived from phyllites and serpentine rocks. The white slip of Aliveri contains some carbonate, probably dolomite. The town of Aliveri marks the boundary line between the sedimentary slates of central Euboea and the metamorphic schists and carbonates of southern Euboea (Matson 1973). The Vasiliko clay increases in hardness with firing temperature, as might be expected, and is progressively more oxidized toward reddish colours at the higher temperatures. Under reducing conditions, the clay remains pale brown.

Matson mentioned that 'The green glaze is prepared from black copper oxide collected from the metal workers, plus red lead and atsakas which is a finely siliceous white powder from Melos. One

potter says he goes down to the harbor with empty bags and fills them with atsakas in a caique that has come from Sifnos. This does not necessarily mean that the atsakas was obtained from Sifnos. A prepared glaze can be purchased from a supplier in the Piraeus, but it is more expensive. It is not difficult to obtain. The locally prepared material also adheres better to the body, and does not run as much when molten in the kiln. The potters report that they use equal parts of the white siliceous earth atsakas, and of lead oxide' (Matson 1973).

The kilns at Chalcis in Euboea are of the variety seen in parts of Sifnos and in Amaroussion/Maroussi at the outskirts of Athens. They are rectangular with a barrel-arched crown. Two long fire boxes for fuel are beneath the hearth, and they are separated by a wall. This is a modern design, probably introduced in the 1920s, and seems to be associated with the energetic Siphniote potters who have migrated to many towns on the mainland. The firing is started with one log being placed at the rear of both of the twelve-foot-deep fire boxes, which are about four feet high at the center of their arched roofs. The ware chamber is about eight to ten feet wide, twelve feet long and about eight feet high in the center. In the crown there are three flue openings, each fifteen inches square. There are two spy holes on the upper entrance face of the kiln through which one can check on the temperature by colour changes in the incandescent interior of the kiln (Matson 1973) (Appendix V).

#### **4.2. THE MODERN POTTERY OF ATTICA**

Maroussi was the most important production center in the suburbs of Athens since the end of the 19th century. Other production centers in the prefecture of Attica, which do not exist today, were those located at the beginning of Iera Odos, in Chalandri, Kalogreza, Agia Paraskevi, Votanikos, Liosion Street and Kolonos (Vogiatzoglou 2009). The majority of craftsmen working in Maroussi were immigrant-craftsmen from Sifnos Island in Greece. Permanent pottery workshops, functioning all year round, existed in this area. During the summer months, however, the work was more intense and the production was richer. For this reason, seasonal island craftsmen migrated to Maroussi and worked in permanent workshops, only during the three months of summer (Vogiatzoglou 2009). Workshops were often owned by craftsmen, but also rented workshops existed. The facilities were always very simple, but well organized for production. The only complicated construction, the kiln, was built by special craftsmen, immigrants from Sifnos. Furnace builders were not permanent members of the production team, but worked part-time in every workshop facility (Figures 40-48) (Vogiatzoglou 2009).

In 1981, Maroussi was still an important production center together with the neighboring Chalandri and Agia Paraskevi. It had about 20 traditional pottery workshops, operating with traditional installations. However, they still used raw materials and transparent lead glaze from Mesogaia in Attica. The same raw materials were used in the workshops from the end of the 19th century, when the first craftsmen/permanent immigrants settled in Maroussi. It was characteristic that the immigrants had transferred the technique and terminology of Sifnos. However, the organization had adapted to the new data of a production center that was established and sold its products in a large urban center, Athens. In 1981 production was limited to some of the traditional shapes, of which only medium-sized ones were produced, while small and large ones were abandoned. The ceramics had a layer of slip and a layer of glaze existed internally. As an example of the "special product" of the Maroussi production was the «kioupi», a jar with a large capacity shape. The construction technique was local (Vogiatzoglou 2009) (Appendix V).

### 4.3 THE MODERN POTTERY OF LESVOS

Lesvos was and is the best-known centre of pottery making. Its earth in many localities is ideal for making pots; hence potter's workshops, or «*tsikaladika*», as they are called here, were scattered all over the island. The majority of these were concentrated in the eastern part between Aghios Stefanos and Mantamado. Ayasos was also renowned for its pottery and «*tsikaladika*» also existed in the bay of Geras in the villages of Pappado and Palaiokampos. The shops of the port town are full of the Ayassos' ware (Figures 49,50) (Psaropoulou 1984).

In order to make the earth into clay one first crushed it, sieved it well and then mixed it with water in settling tanks (Psaropoulou 1984). Two types of earth are used to make the clay. The source remains the same even today, a locality known as Xerokampos. The earth is mixed in the ratio 2:1. The basic component is a dark grey earth called «*melangra*». This is found below the surface of the ground and is thus easily obtainable. Certain objects, such as nuptial pitchers and the 'water puzzles', were entirely covered with red slip. The red earth for this was taken from a locality known as Mistegna or Stypsi (Psaropoulou 1984).

Casson mentioned that 'The commonest shape is the «*stamnos*» made with one or two handles and with a long lipless neck, the main characteristic of which is that it has a curious outwards bulge in the middle of the neck). Its decoration is uniform and consists of slash lines of dull matt white paint round the neck and down the sides, usually in three stripes that break away from the base of the neck and end at the base of the vessel itself. In between these stripes there are independent scrolls, rendered with a generous touch of the brush and ending up in spirals. These spirals and cross add a Minoan look to the design resembling to the larger spirals and scrolls of Cycladic Melian wares of the Bronze Age. Alternatively, some of these vessels bear a decoration of a matt blue tone but with patterns identical to those used for the white paint. A rarer type of decoration is seen in the case of «*stamnoi*» of the same shape painted with three or four matt colours, usually blue, white, cerise and green, but still with the same decorative patterns. They are not common, and do not appear in the pottery shops of Mytilene, but only in those of Ayassos. The clay is a fine dull unglazed red. The cost of the vases is negligible, the largest being about ten drachmas and the smaller two or three drachmas a piece (the rate of exchange being drachmas to the pound sterling). This low cost has some bearing on the possible export trade, because it limits their export to sailing ships. The freight charges by steamer would bring up the cost of the vases to an uneconomic level' (Casson 1951; 2015).

The other shapes beside the «*stamnos*» in this main Lesvian fabric are

- (a) the «*oenochoe*», a small lipped wine jug with one handle.
- (b) large jugs for water, with lips (Casson 1951; 2015).

Furthermore, Casson supported that 'A second main Lesvian ware is of a different type. It is glazed with a shiny transparent glaze on a white ground and has rough designs in blue and green. In many ways it resembles the Chalcidian wares which flood the Greek markets. But the Lesvian glazed wares are softer in tone and altogether more attractive and agreeable. Often, they acquire a soft creamy look which is quite pleasant. This glazed fabric is used for plates, plain jugs (probably for milk) and cups. There are also palm-pots of the Chalcidian shape and various domestic ornamental

pieces. He suspected that the fabric was produced to serve as a local rival to imported Chalcidian wares. The only identified imports in Mytilene in Lesvos are the wares from Samos. The plates with white glaze and rough designs in tomato red were especially common. It was significant that Chalcidian wares were apparently not imported at all into Lesvos. The island must be almost the only Greek island that does not import Chalcidian wares. The small town of Aghios Nikolas in the gulf of Mirabello in Crete the bulk of pottery imported was Chalcidian' (Casson 1951; 2015).

There were some forty «*tsikaladika*» in the region between Aghios Stefanos and Mantamado. If to these we add those of Ayasos – another ten or so – and a further eight from other places, the reader will have some notion of their considerable output. Furthermore, each kiln held on average 1000 pieces and kilns were fired more than once a year. Suffice it to say that a good potter produced 100 pitchers a day and a very good one 130. Therefore, the market which had grown must have been large. A major slice of the output went to the littoral villages of Western Turkey (Asia Minor), the Aegean islands and the shores of Mainland Greece. Today these past glories have been forgotten. All but a few of the kilns have ceased to function and their minimal output is absorbed by Lesvos itself, especially in those villages around Aghios Stefanos and Mantamado (Psaropoulou 1984) (Appendix V).

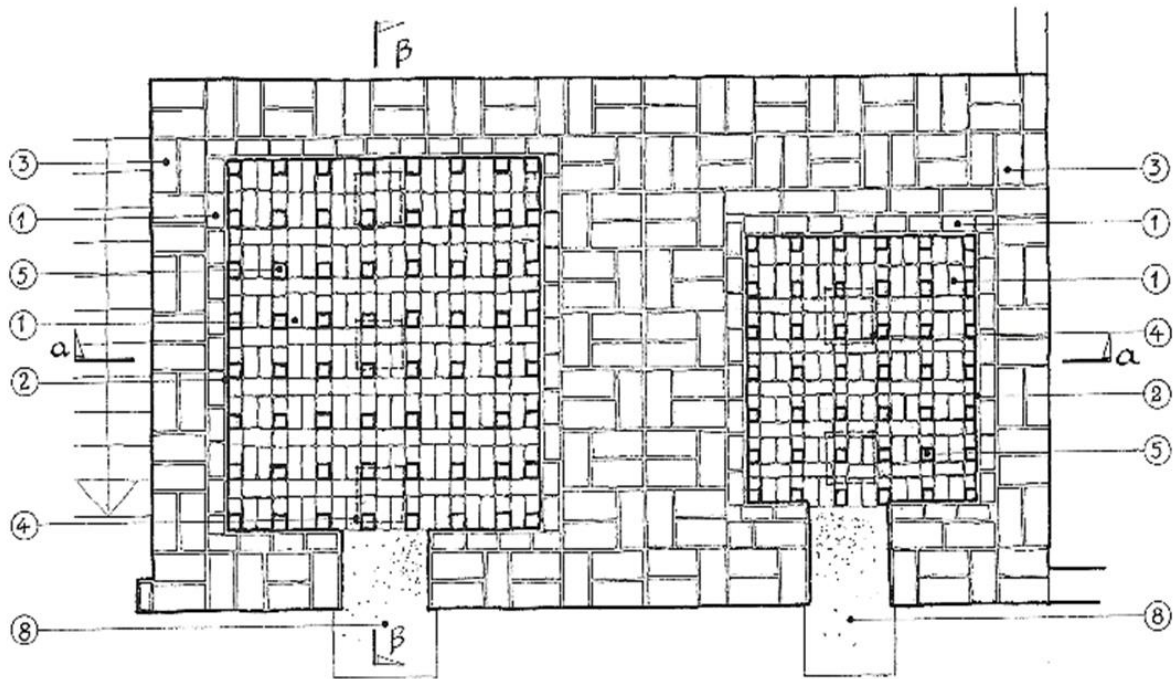
The workshops of the area of Mantamados, the so-called «*kaminia*», were permanent constructions and were located very close to the sea. They were rectangular, ground-floor, flat-roofed buildings with a protruding base all around, made of flat stones called «*pouplatsa*» (Figures 51,52). The type of this building is the same as that of the lesvian farm house (Apostolou 1960). Local limestone and wood, usually white, are used as the basic building materials for the roof. The dimensions of the workshops range from 12 m length, 4-5 m width and 3-4 m height. They have two entrances and two windows to the North and East. The support of the roof, the so-called «*doma*»/attic, took place through two or four pillars, the «*simidoutsas*» on which were placed the smaller ones, called «*diples*» at a cross-shaped pattern. On top of them, again in a cross-shaped arrangement, were placed reeds, one next to the other, called «*stovara*». The construction of the roof was accomplished with a layer made of reed and dried algae, called «*primer*» on which was spread a mud made of thick silica-based earth- a process called «*earthening*» - which was redone every year. On the front side of the roof, clay gutters were placed, the «*kournels*», for the outflow of rainwater. The floor of the premises, the «*sirgi*», was made of pressed soil and mud (Paraskevaidis 1987, pp. 464-466, Apostolou 1960, p. 129, Korre-Zografou 1995b, p. 280, Vostani-Koumba 1989, p. 75, Giannopoulou and Demesticha 1998).

The interior of the «*kilns*» had a double layout, as it not only served the working needs, but also served as a living space for the potters. For this reason, a wooden raised structure existed («*sofas*») along the entire width of the western wall of the building, at a height of 1-1.5 m and at a width of about 3 m. The "sofa" led to a wooden staircase, and on it there was the laundry room, the «*parachouti*», a cupboard and a small window overlooking the sea. In many workshops, a second higher level was created in the "sofa", where the bed was. The lower part of the «*sofas*» was used to store ceramics. The wheel was placed in the eastern part of the workshop (Figures 51,52) (Giannopoulou and Demesticha 1998).

The laboratory spaces were supplemented by other exterior constructions, necessary in the process of making the ceramics. The elongated shed space, open on a narrow side, the «*mud house*», which

was adjacent to a long side of the workshop, was intended for spreading and preparing the clay. On a long side were also dug two square pits, the «sousmedes», which communicated with each other through an internal hole, one deep and narrow and the other shallow and wide, where the clay was prepared. Many times, there was another room extension, which served as a warehouse for ready-made ceramics. A specially designed outdoor space, the «tatsistra», was located next to the kiln for the placement of dry objects intended for baking (Praskevaïdis 1987, pp. 468-469, Vogiatzoglou 1980, pp. 38-41, Korre-Zografou 1995b, p. 280, Giannopoulou and Demesticha 1998).

The origin of the architectural type of the ceramic kiln in Lesvos, the local name of which is «furnace», has not been ascertained by the research. The inhabitants of the area have long called these constructions, the «Turkish». These kilns, which belong to the wider category of anodic combustion kilns, were intended for firing at low temperatures (up to 1200 °C) and were suitable for firing secondary clays, which is also the usual category of clays in Greece (Figures 53,54,55). All the surviving kilns in the area belong to the same architectural type: cylindrical, open at the top, bilateral buildings made of bricks inside and stone outside. The lower part of the kiln was built in the ground and in it an arched entrance was opened for the fuel. The thickness of the walls was quite large (about 60 cm), while the support of the floor of the upper floor was achieved internally by the construction of brick arches, which were adjacent to the side walls, and a central cylindrical column also made of bricks. On the upper floor, called “cauldron” (kazani) was constructed the floor (“tabani”) made of fired bricks called “noumedes”; on this floor holes opened up in regular intervals along with a central rectangular entrance. The kiln always had on its inner surface a coating of clay soil mixed with straw, which was renewed after many burns (Praskevaïdis 1987, pp. 468-469, Psaropoulou 1986, pp. 184-191, Hampe-Winter 1965, pp. 148-149). At the back or on the side of the kilns, a stone staircase was built, which led to the top of them, from where the placement of the vessels in the highest space was completed (Giannopoulou and Demesticha 1998).



top view of high floor

- |                         |                    |                           |
|-------------------------|--------------------|---------------------------|
| ① refractory brick      | ⑥ ventholes        | ⑨ fuel entrance           |
| ② mud                   | ⑦ arches           | ⑩ soil                    |
| ③ brick                 | ⑧ columnar support | ⑪ projection of ventholes |
| ④ projection of chimney | ⑫ kiln entrance    | ⑫ projection of arches    |

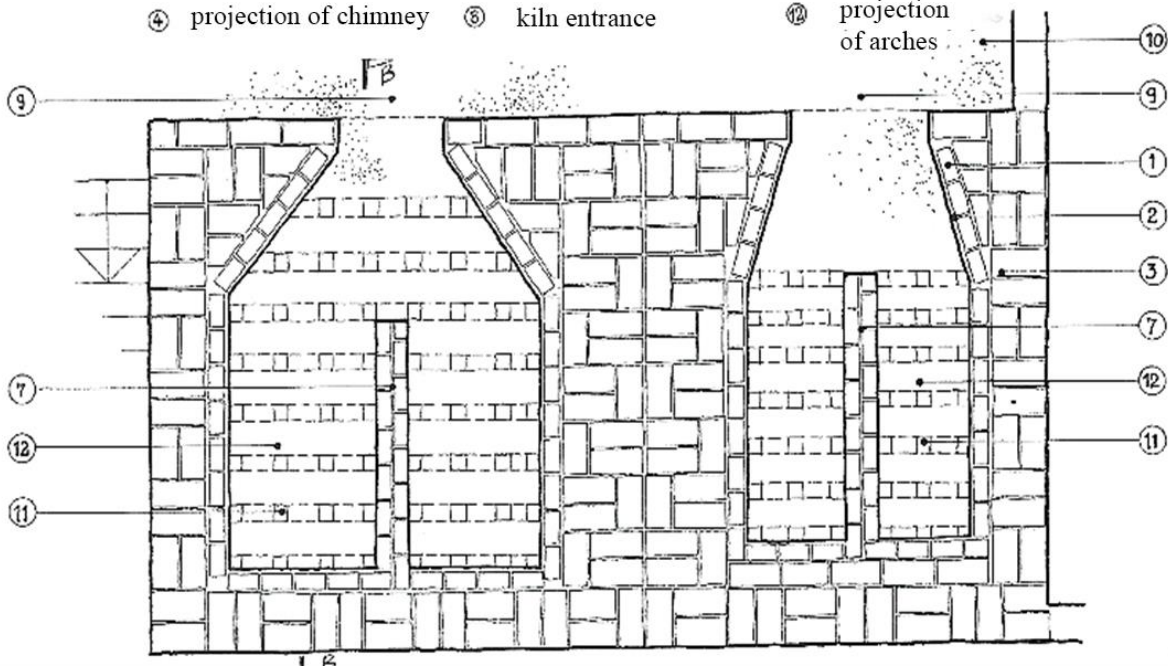


Figure 40 Maroussi - Kaminia in Attica by A. Mavrogonatos (Vogiatzoglou 2009, p. 90).

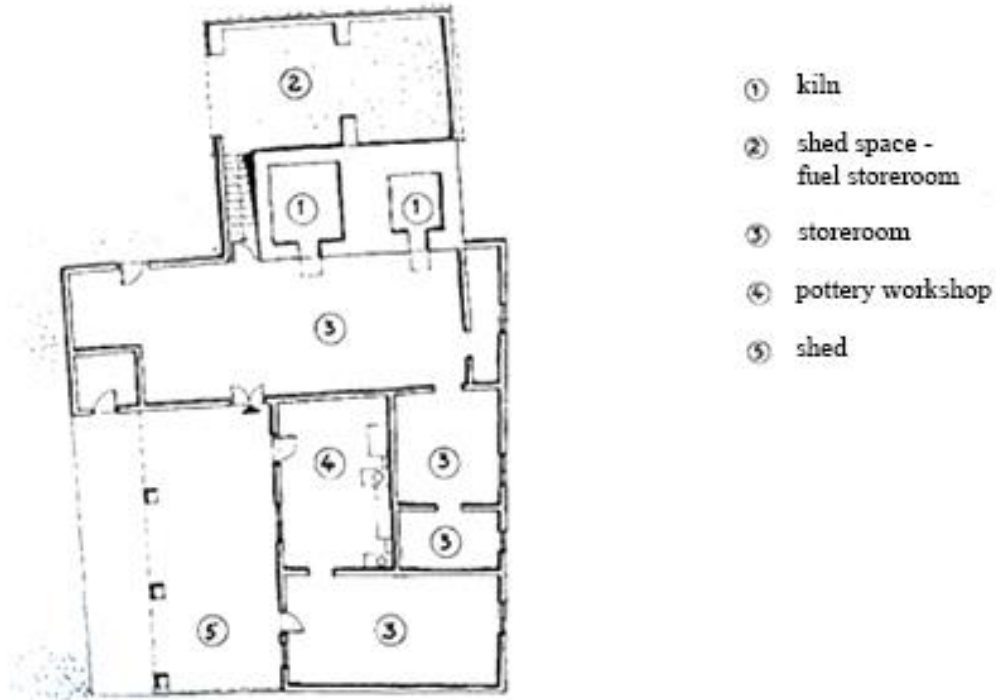


Figure 41 Maroussi - Laboratory of A. Mavrogonatos in Attica. General top view (Vogiatzoglou 2009, p. 91).

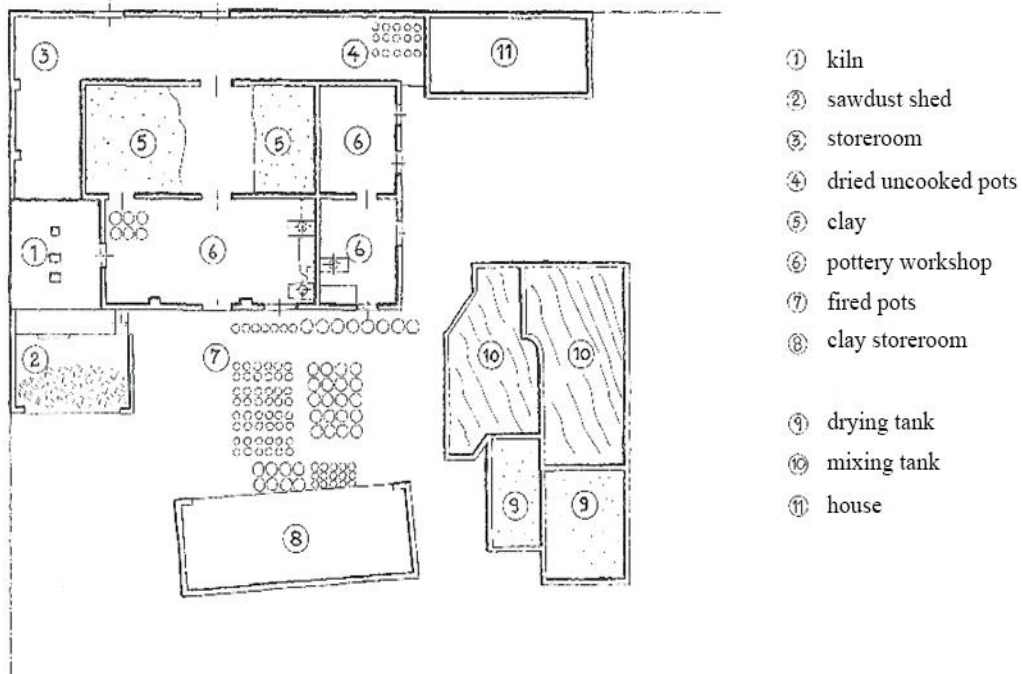


Figure 42 Maroussi - Laboratory of V. Georgoulis in Attica. General top view (Vogiatzoglou 2009, p. 92).

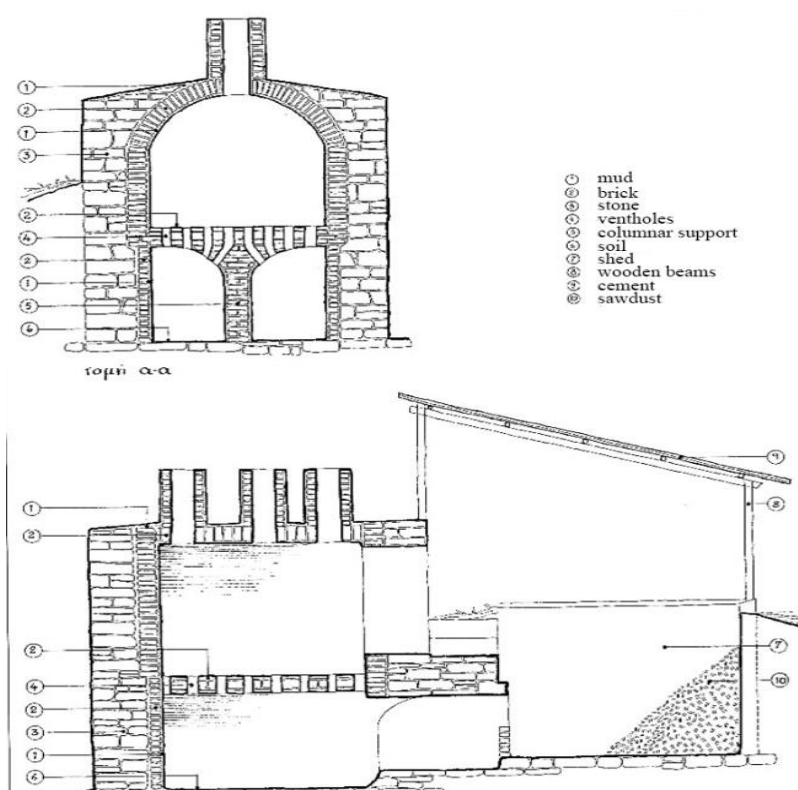


Figure 43 Maroussi - Kamini of V.Georgouli in Attica (Vogiatzoglou 2009, p. 94).

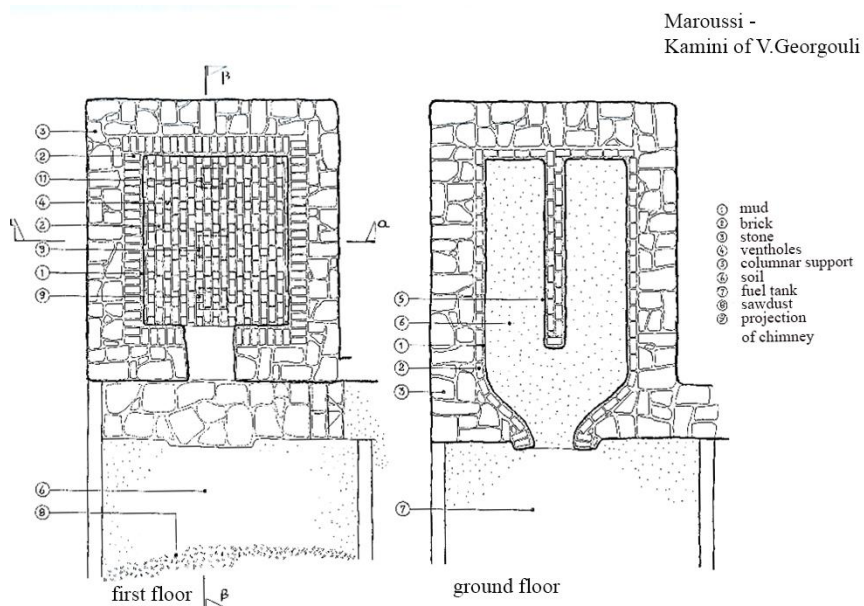


Figure 44 Maroussi - Kamini of V.Georgouli in Attica (Vogiatzoglou 2009, p. 94).

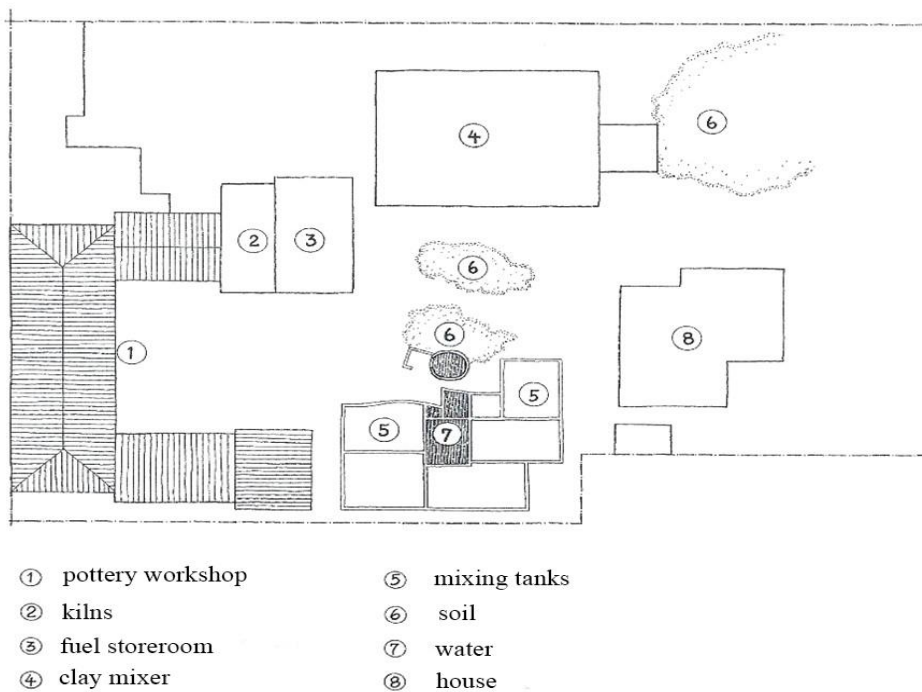


Figure 45 Maroussi - Kamiania Tzani Kalogerou in Attica. Topographic (Vogiatzoglou 2009, p. 96).

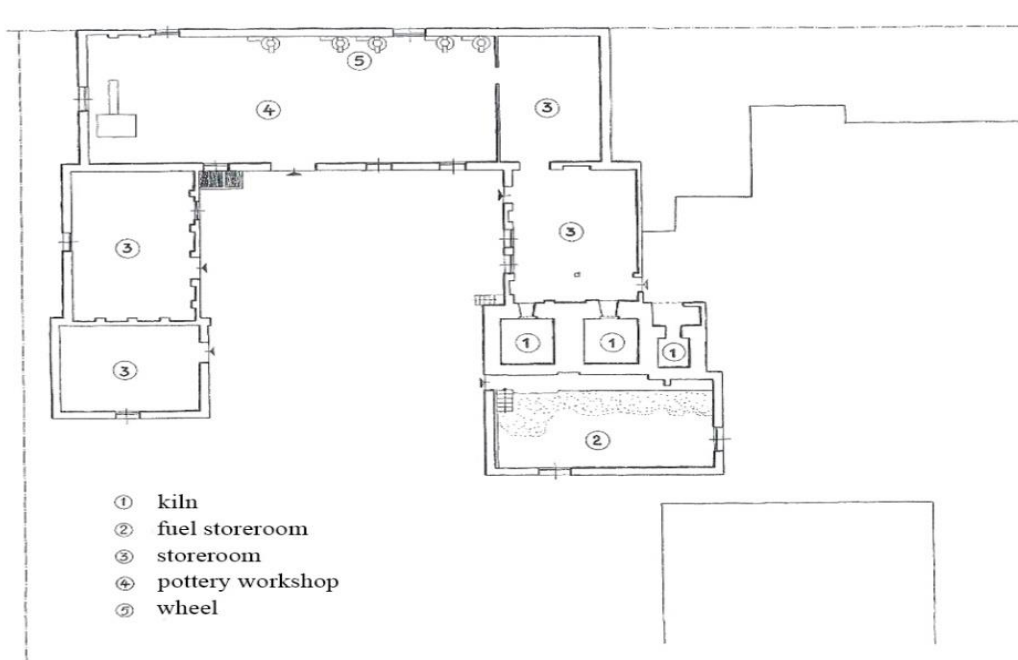


Figure 46 Maroussi - Kamiania Tzani Kalogerou in Attica. General top view (Vogiatzoglou 2009, p. 97).

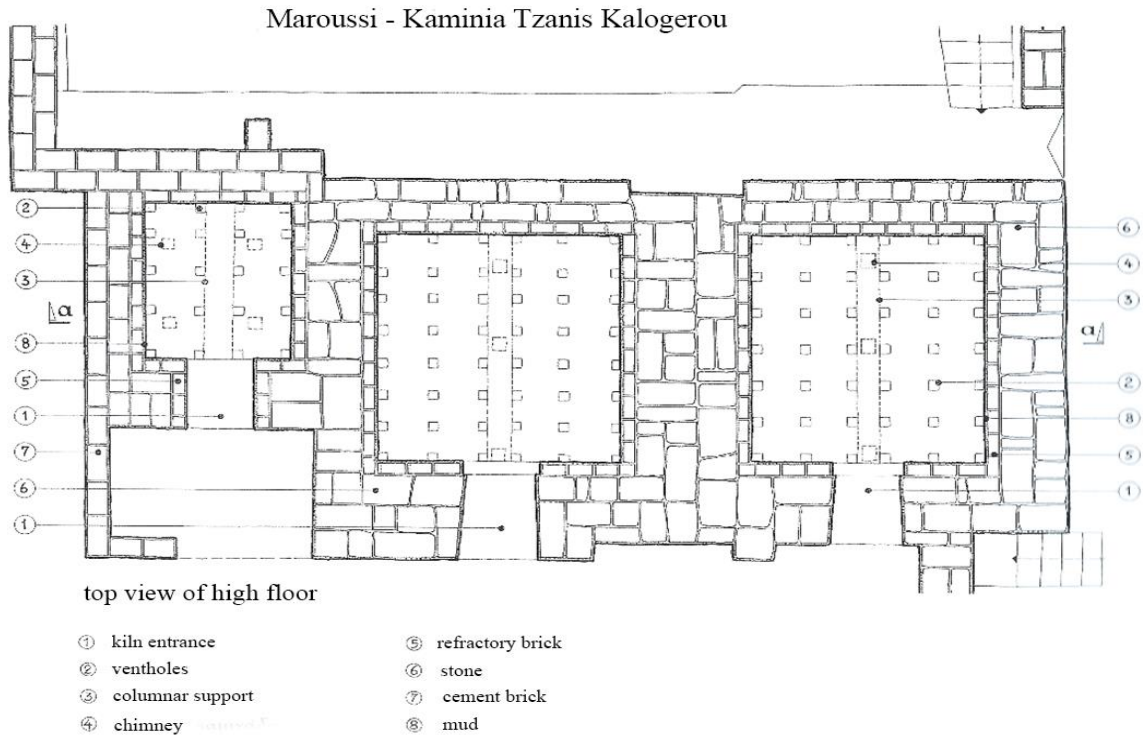


Figure 47 Maroussi - Kaminia Tzanis Kalogerou in Attica (Vogiatzoglou 2009, p. 98).

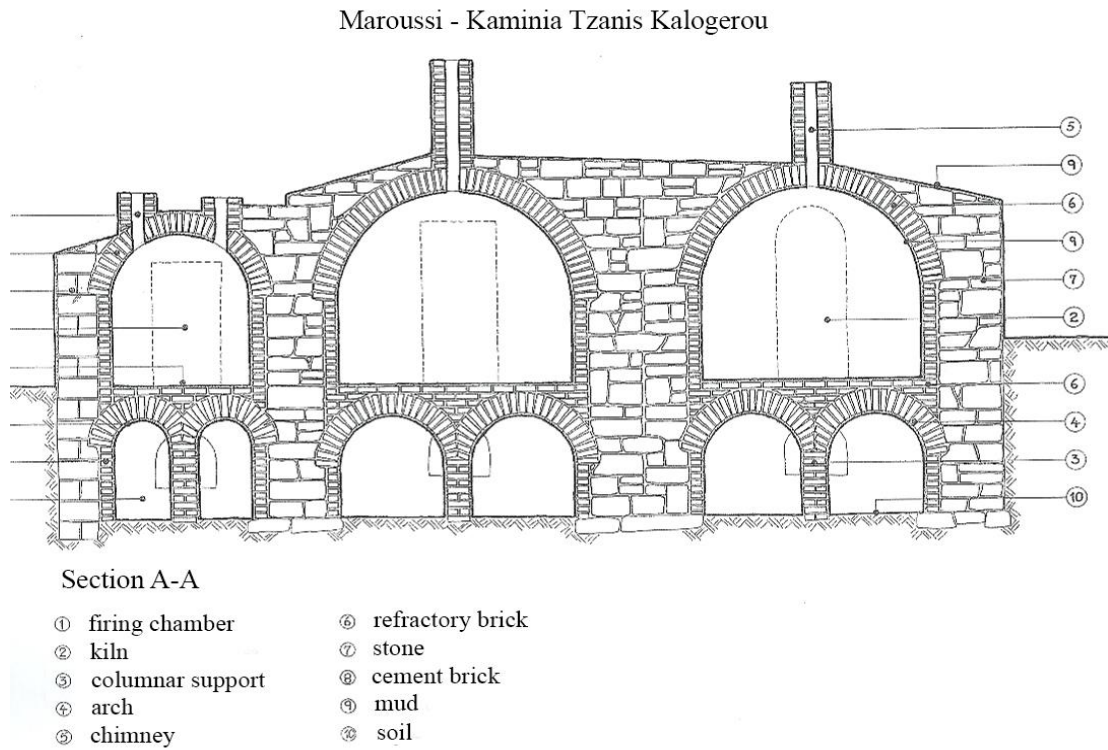


Figure 48 Maroussi - Kaminia Tzanis Kalogerou in Attica (Vogiatzoglou 2009, p. 99).

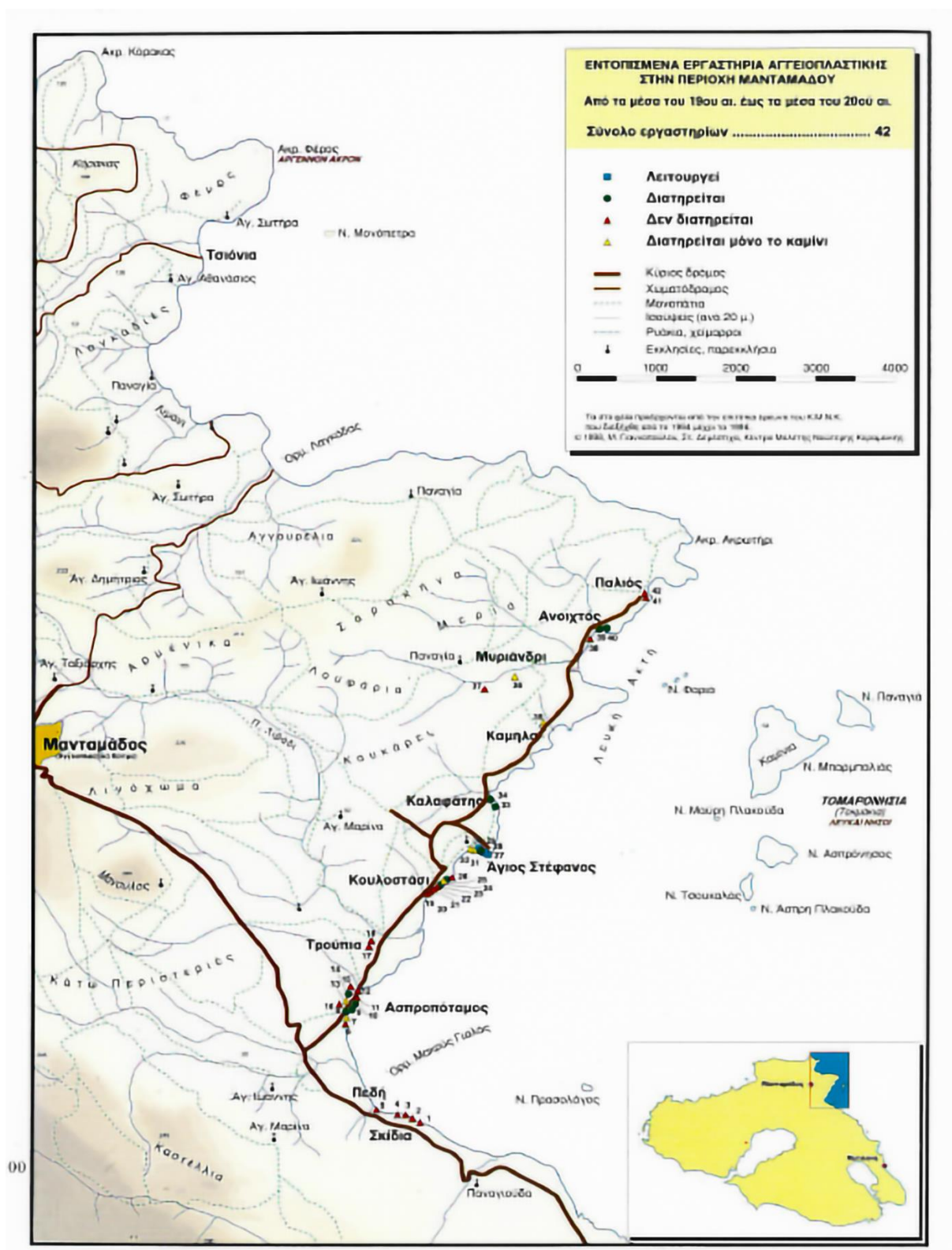


Figure 49 Map of pottery workshops in Mantamados in Lesvos, 19th – middle 20th century (Giannopoulou and Demesticha 1998, pp. 100-101).

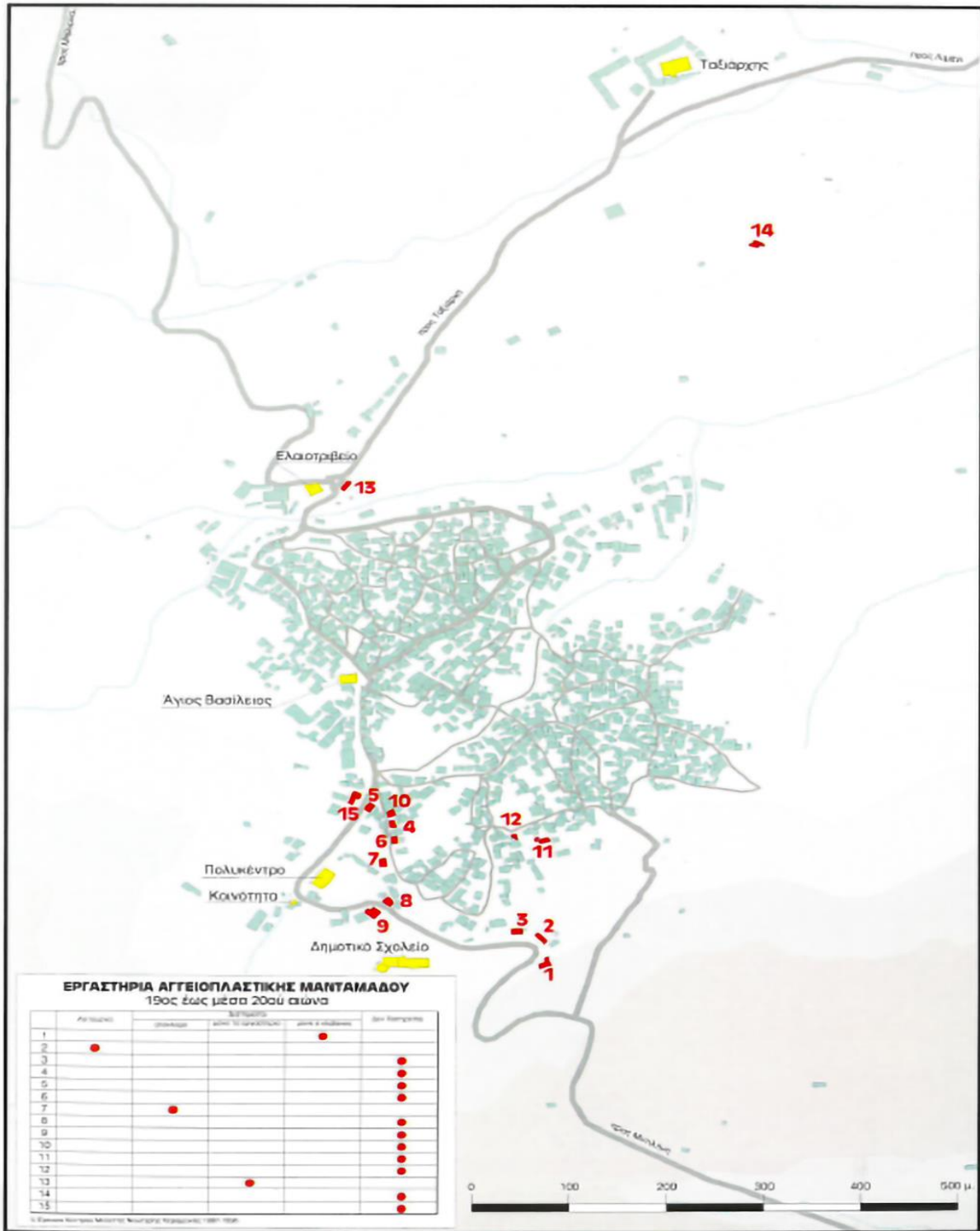


Figure 50 Map of pottery workshops in Mantamados in Lesvos, 19th – middle 20th century (Giannopoulou and Demesticha 1998, pp. 100-101).

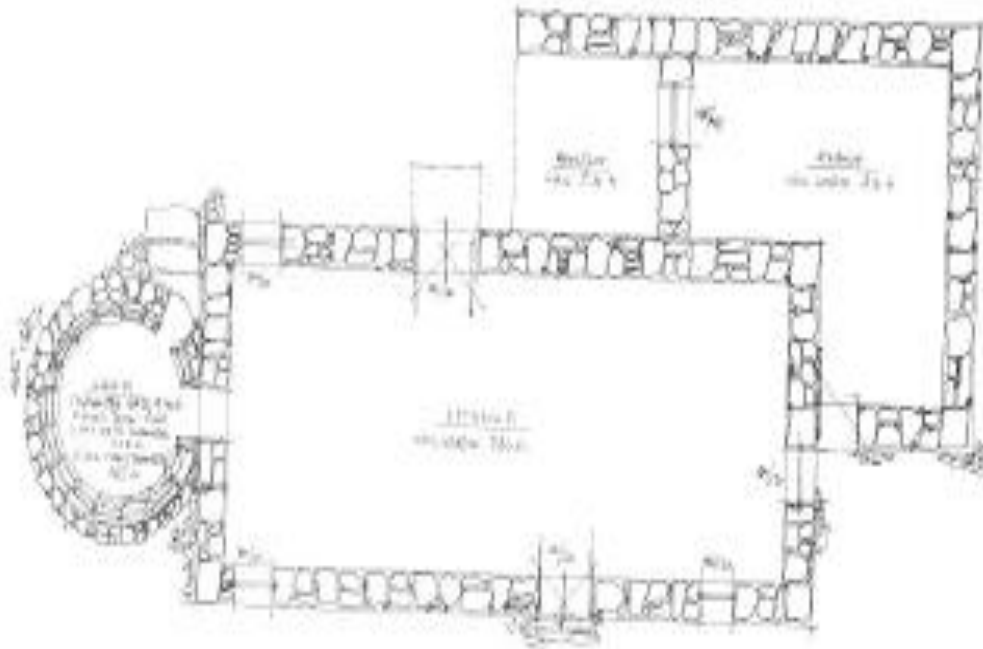


Figure 51 Top view of the laboratory and the furnace of Stratis Chatzianastasiou in Kalafatis in Lesvos. Impression-design: N.G. Verveniotis architect, 1997 (Giannopoulou and Demesticha 1998).

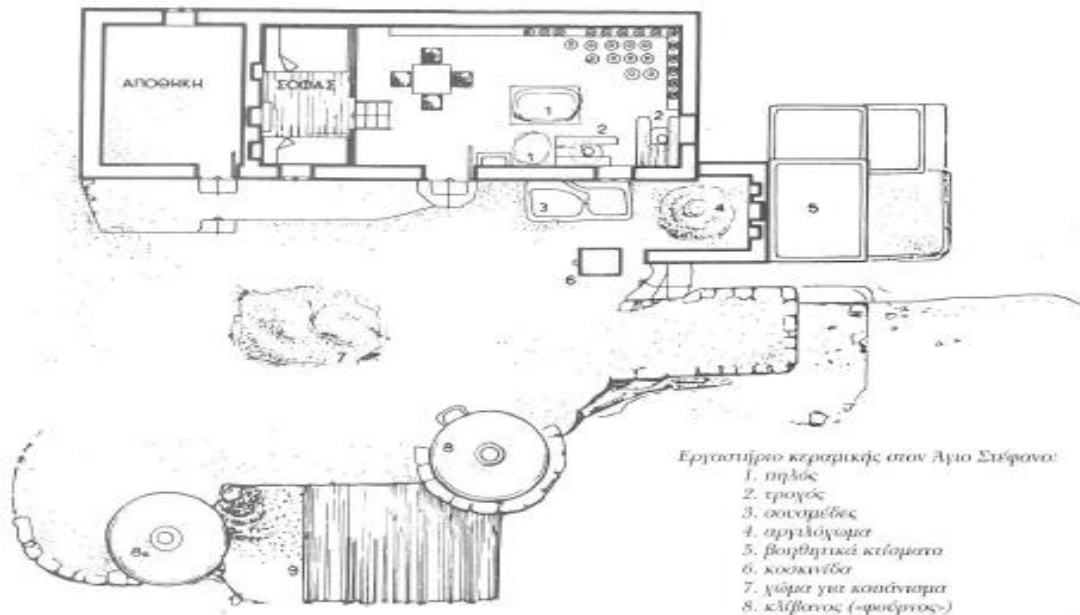


Figure 52 Pottery workshop in Agios Stefanos in Lesvos: 1. clay, 2. wheel, 3. σουσμέδες, 4. clay, 5. support buildings, 6. κοσκινίδα, 7. χώμα για κοπάνισμα, 8. kiln, 8a. kiln for glazed objects, 9. fuel. Impression-design: P. Vroucha, architect, 1980 (Giannopoulou and Demesticha 1998).



Figure 53 Drawing of the back view of kiln with one layer, in the area of Agios Stefanos in Lesvos (Psaropoulou 1986, p. 186; Giannopoulou and Demesticha 1998).

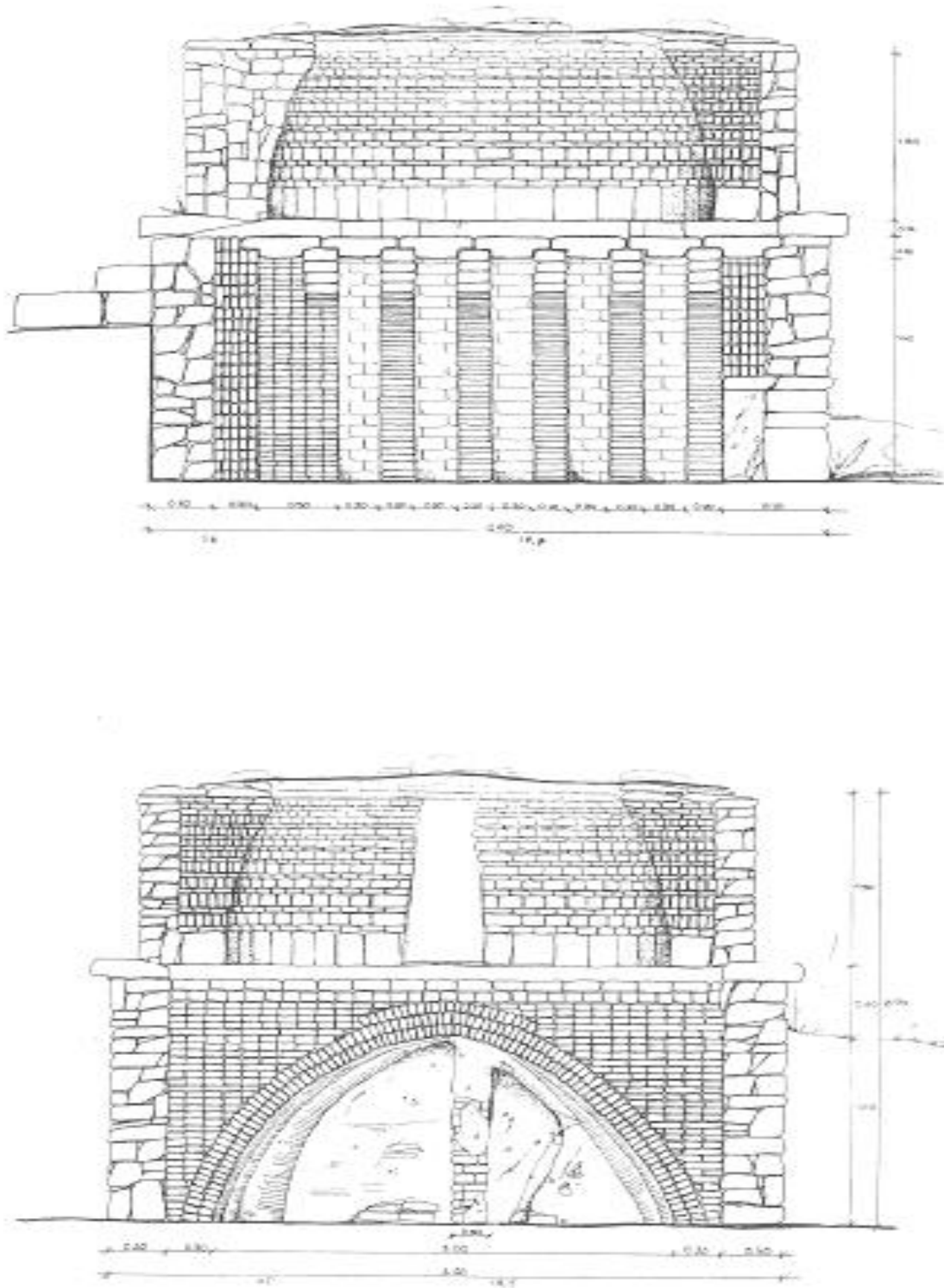


Figure 54 Sections of the furnace owned by Stefanos Kouvdīs in Agios Stefanos in Lesvos (Psaropoulou 1986, pp. 188-189; Giannopoulou and Demesticha 1998).

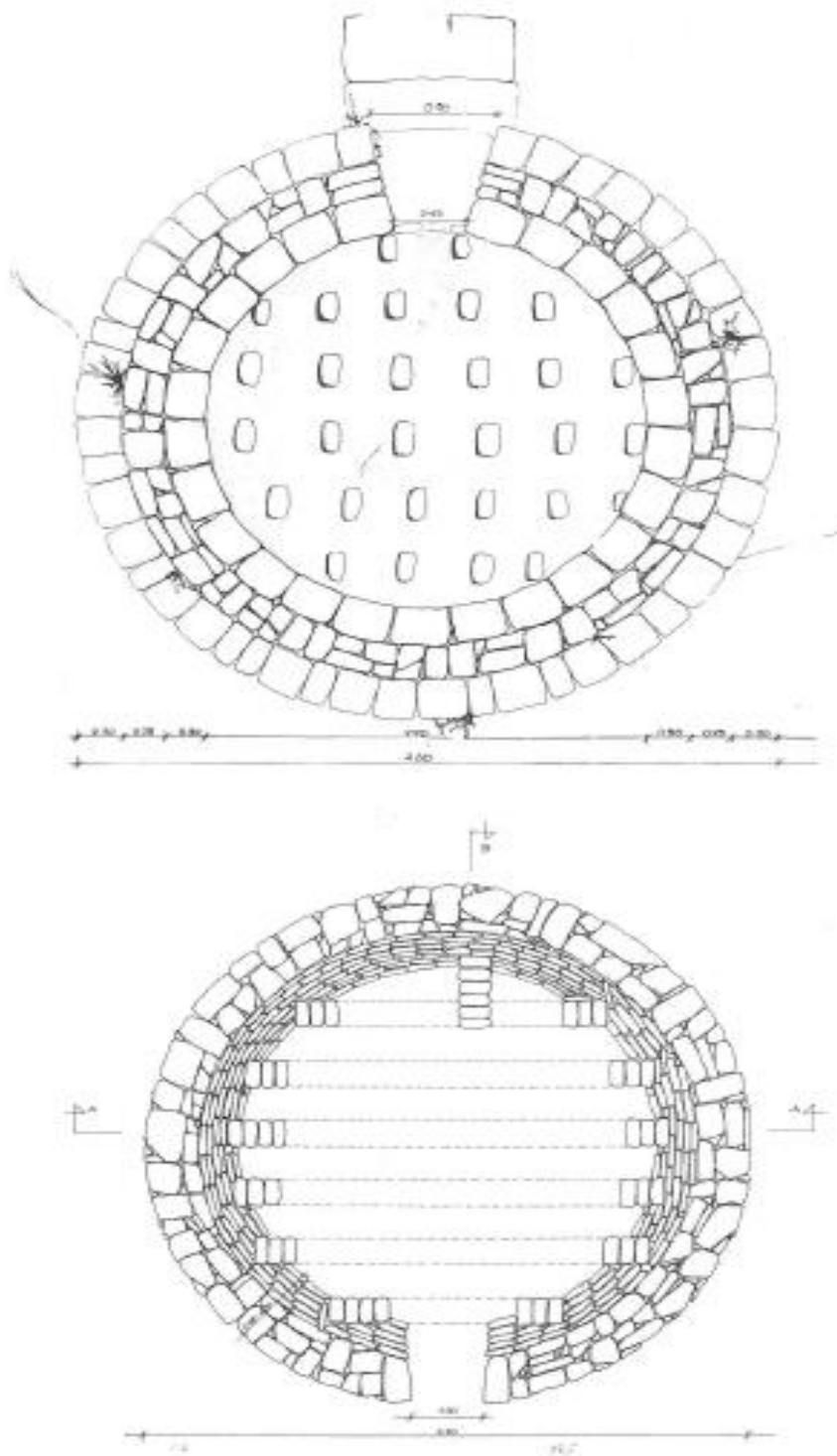


Figure 55 Sections of the furnace owned by Stefanos Kouvdīs in Agios Stefanos in Lesvos. The floor with the holes (top) and its support (bottom) can be distinguished (Psaropoulou 1986, pp. 190-191; Giannopoulou and Demesticha 1998).