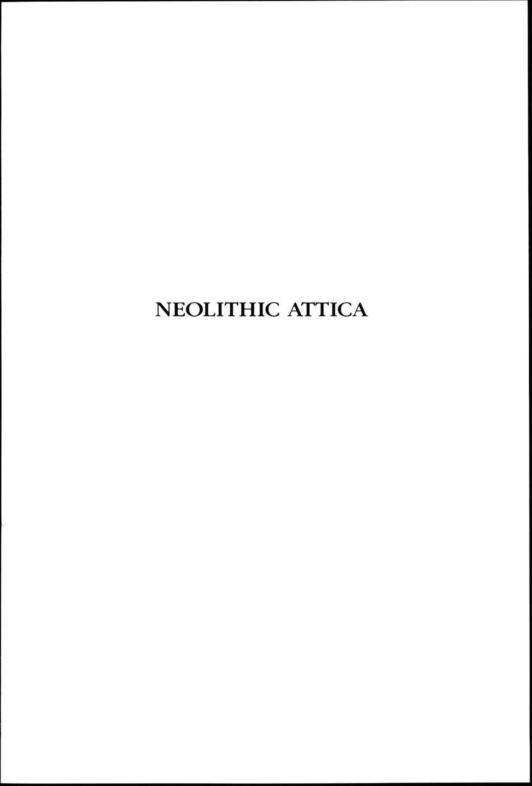


Maria Pantelidou Gofas

# NEOLITHIC ATTICA



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Cover picture: Floor of a Late Neolithic hut (figs. 53, 54).

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#### MARIA PANTELIDOU GOFAS

Professor of Prehistoric Archaeology University of Athens

## **NEOLITHIC ATTICA**

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#### INTRODUCTION

The Neolithic period began in Greece several thousand years ago, in an environment which had already been long familiar to man. The preceding Palaeolithic and Mesolithic periods are known from finds at sites and localities in Epeiros, Thessaly, Central Greece, the Peloponnese and perhaps Attica. These were the earliest periods of human existence on the earth, when men lived basically by hunting, fishing and gathering wild fruits. They were therefore forced to be often on the move, and depended on the natural environment, climate and particular conditions to find food and shelter, without ever establishing settlements.

The beginning of the new Neolithic era was marked by three essential steps forward: cultivation, the domestication of animals and permanent settlements. All three were interdependent. People needed to be in the place where they planted their seeds in order to harvest the crops, and in order to settle somewhere they had to ensure a supply of food from the earth both for themselves and for the domesticated animals which were dependent on their care.

The Greek Neolithic culture was the earliest in Europe, starting in about 6800 BC. It had appeared even earlier in the East, from where it is thought to have been transplanted to Greece along with the first empirical knowledge and skills in organising existence. The birth

and rapid development of the basic elements for permanent settlement was natural in the East, because it was there that the first cultivable plants and domesticatable animals were originally found in a wild state. It took comparatively little time for the ensuing improvement in the way of life to bring about a large growth in population, causing people to seek new sources of living, and they therefore migrated to other regions, which are not easy to identify.

#### Natural environment

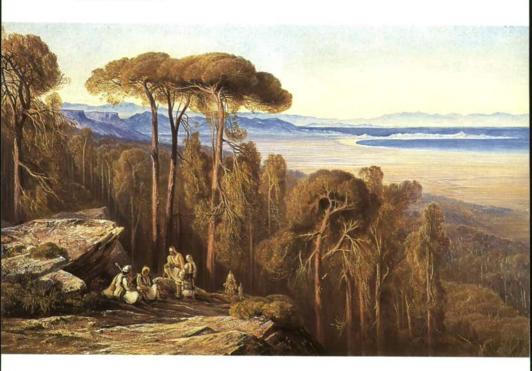
The first people in Attica arrived in about 6000 BC and established their settlements beside the sea. Nature herself guided them to the places best suited to their life and the sites where they built their houses. In time the population grew, settlements became thicker and today we find their last traces thinly scattered from Rhamnous to Lavrion in the east and from there to Kokkinia and Elevsina west of Mt Aigaleos (fig. 1).

Attica, in the southeastern corner of the Greek mainland, was conveniently situated in the Aegean and afforded its inhabitants an adequate supply of food, pleasant living conditions and excellent possibilities of communication. Its principal features are the mountains and small plains and above all the sea that washes its eastern and southwestern shores, forming headlands and innumerable little bays.<sup>2</sup>

The mountain masses break the strong, cold winds and divide Attica from Boeotia on the north and Megara on the west. Between are natural routes and passes linking the hinterland with the coast, and the whole region

Pines, lentisks, kermes oaks and other vegetation cover a great part of Attica (fig. 4) and in those days there may well also have been wild olives. What we do know, however, is that the first inhabitants knew how to cultivate cereals, chiefly a species of wheat, which had been known much earlier in the countries of the East and in Thessaly.

Nevertheless, the soil was never particularly fertile, being somewhat arid and poor, especially in summertime, and the ancient Greeks justly described Attica as "thin in soil".<sup>7</sup>



4. Edward Lear. View of Marathon. Oil. 1854.

The climate, which specialists say has not changed since prehistoric times, was always mild and dry. The many warm and few rainy days and even rarer frosts formed ideal conditions for permanent habitation, especially at a time when man was particularly exposed to the forces of nature.

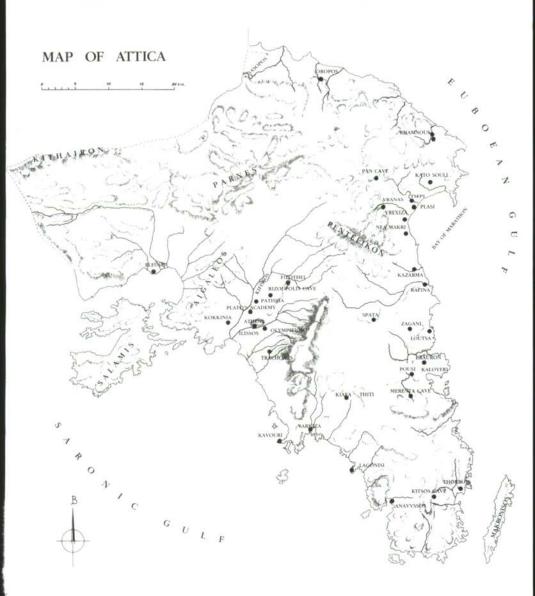


3. A Löffler - A. Fesca. Engraving of the Ilissos landscape.

with Central Greece and the Peloponnese. The small plains of Marathon and Mesogeia on the east and the larger Athens basin in the middle, the *pedion* of the ancient Greeks, were easy to cultivate even in the Stone Age. The Kifissos and Ilissos rivers (figs. 2 and 3) with their tributaries are small rivulets in times of drought, but after heavy rains become fierce torrents, flooding and fertilising the low-lying flatlands. The routes along them formed roads for people and attracted animals to drink. Visible natural springs are few, but underground water is often found at a shallow depth.



2. Henry Cook. Lithograph of the Kifissos landscape (ca. 1850).



1. Map of Attica with the known archaeological sites.

## Chronology

The Neolithic period in Greece was first recognised and studied a century ago in Thessaly. Christos Tsoundas, the founder of Greek prehistory, with percipience and scholarly thoroughness was able through his excavations to distinguish two Neolithic phases and he dated its beginning to 5000 BC.<sup>8</sup>

After the middle of the 20th c. excavations multiplied, new sites were discovered with earlier levels, and it is now thought that the Neolithic period began with a Preceramic phase in about 7000 BC, before people learnt how to make pottery. This was followed by the main Neolithic era, divided into a number of long periods: Early, Middle and Late, finishing with a Final Neolithic or Subneolithic period that ended with the beginning of the Bronze Age in ca. 3200 BC. 10

The length of the periods has been established by reliable reasoning, careful calculations and detailed comparisons of the excavation finds with objects of known date from other regions, and all these taken together form a complete network of chronological information.

For several decades now the Carbon 14 method has been in use to give us an accurate determination of dates; it measures the age of organic remains like bones, wood, charcoal, shell, etc. The dates are established with a close approximation, 11 but the accuracy of the measurements is not absolutely confirmed and sometimes the calculations give uncertain results.

However that may be, the measurements have in recent years been tabulated in a composite system of infor-

mation, checks and proofs, and the following absolute dates are accepted for Central and Southern Greece:<sup>12</sup>

Preceramic Neolithic	6800 - 6400
Early Neolithic	6400 - 5700
Middle Neolithic	5700 - 5300
Late Neolithic	5300 - 4300
Subneolithic or Final Neolithic	4300 - 3200

## The first people

The earliest traces of people passing through Attica are a few tools scattered outside a cave (fig. 5) in the district of Lavrion, known as the Cave of Kitsos after a notorious brigand. A few roughly worked flint flakes, found at a deep level in the excavation, had been made into tools of a type and technique belonging to the Palaeolithic period.

A date that has been attributed to them of around 40,000 years is not universally accepted, because flint was worked in a similar manner in other, much more recent periods. In any event these tools, if they are Palaeolithic, do not necessarily mean that people inhabited the cave, but only that it may have provided temporary shelter for a group of hunters who arrived on the hill. The site subsequently remained deserted for tens of thousands of years, even after the establishment of the first settlements in Attica, to be used again, as we shall see, at the end of the Stone Age.

Sites of the first period, the Preceramic Neolithic,

with sparse habitation and very few small finds, are generally difficult to identify, and many indications of man's presence still remain hidden. There are few such sites in Greece, and these are chiefly in Thessaly, and even fewer, rather doubtful, ones in the Peloponnese, although we know it to have been inhabited at this time.<sup>14</sup>

Attica seems to have remained empty. Preceramic artifacts, now in a museum abroad, are said to have been found at Marathon and Anavryta (Maroussi),<sup>15</sup> but the exact provenance of these finds is uncertain and there is now no possibility of re-excavating the sites.



5. Terrace outside Kitsos Cave with a view of the Lavrion plain.

#### EARLY NEOLITHIC

In the whole of Greece – Thessaly, Central Greece and the Peloponnese – the Early Neolithic settlements are all scattered over the eastern part on the Aegean side. <sup>16</sup> This orientation and the seaward tendency are particularly evident in Attica, where the Early Neolithic remains are located not only along the eastern seaboard, but almost right on the shore (fig. 1).

Chance surface finds, small exploratory trenches and full excavations have yielded typical pottery dating to about the middle of the Early Neolithic period and give us a certain generalised picture of the period. Rhamnous, Nea Makri and Pousi Kaloyeri near Brauron are well-known sites which attracted man from the beginning, and they were certainly not the only ones. They tell us a little, but not enough to illuminate important questions, such as what region the people came from and how they knew of the place before they came and settled here. Only the distribution of the settlements suggests that perhaps they came by sea and that they counted on the sea to find ways of pursuing their activities.

### Settlement sites

Geographically the sites on which they chose to build their settlements were low hills or simple elevations (fig. 6), gentle slopes facing the sea, sheltered bays and even flat terrain, like Nea Makri (fig. 7), provided they had easy access to the sea and the hinterland. From these



6. Hill at Brauron inhabited in the Neolithic period.



7. Site of the Neolithic settlement of Nea Makri (photo 1954).

positions they could survey the surrounding country-side and readily perceive approaching danger, less from people than from beasts, and avoid rising waters and flooding, while at the same time they had close access to the cultivated and grazing areas. High steep hills or headlands did not yet attract them, for assault weapons – stones and slings – were still rudimentary and elevations or high walls would have provided no extra security. If protection against wild beasts was necessary, they could have erected a large barrier of brush, which naturally would not have survived. Such fences occur everywhere in the Greek countryside today around animal folds, and also in countries like Africa around habitations (fig. 8). In any case, whatever the chosen situation, there needed to be an available source of water, a neces-

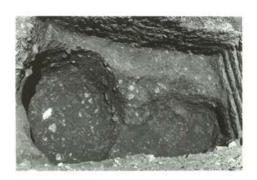


8. Fence in southern Kenya to protect a Masai settlement from wild animals.

sity for the inhabitants, their houses, animals and crops.

We know little at present about the organisation of the settlements in Attica or about everyday life in the Early Neolithic period. The evidence is lacking, not because of its age, but mainly because it is found in deep strata that have been covered by later deposits. We do not know amongst other things, for example, the size and shape of their houses, how they were built or whether they were laid out in a particular way in the settlement. We have gleaned only a little random and partial information from excavations. 18

Supplies of food and other perishable substances were kept in the ground. Small circular pits, about a metre in diameter and 50 to 80 cm deep, with bare sides and unsheltered, served as storage places (fig. 9). These storage pits do not seem to have been protected inside buildings or in closed places, but were outside in the yards, covered with some perishable material like wood, hides, etc.<sup>19</sup> Today we usually find the storage pits filled with broken pottery, bones and other waste, which were thrown into them by the inhabitants of the houses around, when they ceased to be used as storage pits.



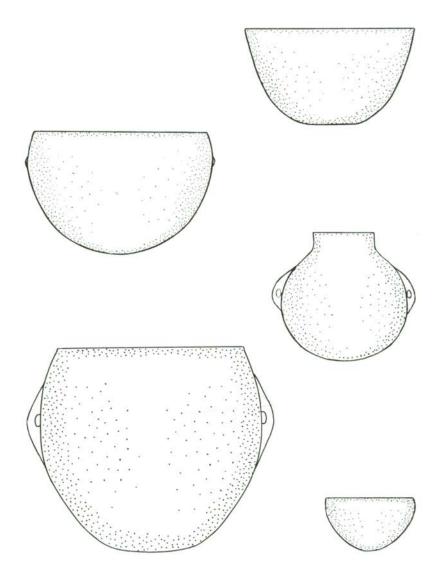
Early Neolithic storage pits. Nea Makri.

## Pottery

A great deal, indeed most of our information about the Early Neolithic comes as always from the pottery. We know that pottery itself is not the most impressive of human creations, but it has the virtue of not vanishing as perishable materials do. Useful, cheap and breakable, it is quickly manufactured and replaced, depending on the methods, means, preferences and capabilities of the period. A necessity in everyday life, it is found in all inhabited places, so that today it forms a web of human activity without breaks or gaps. All attempts to date the different periods are based in principle on pottery, and from the associations we derive information and evidence about the different groups of people, their relations, cultural level and many other facts which emerge after long research.

Neolithic pottery in particular has been studied intensively and exhaustively,<sup>20</sup> and many excavations have been carried out with the principal aim of making stratigraphic and typological observations, without proceeding further to study people's other expressions and achievements. The Neolithic Period was thus basically open to study from the period when man discovered and practised the craft of ceramics.

All peoples throughout the world fashioned their first clay pots in a spherical or hemispherical form (fig. 10), always roughly the same, resembling a whole or half of a fruit. They were made by hand, without mechanical means. The same technique is to be found today in remote regions of Asia and Africa, in open-air workshops,

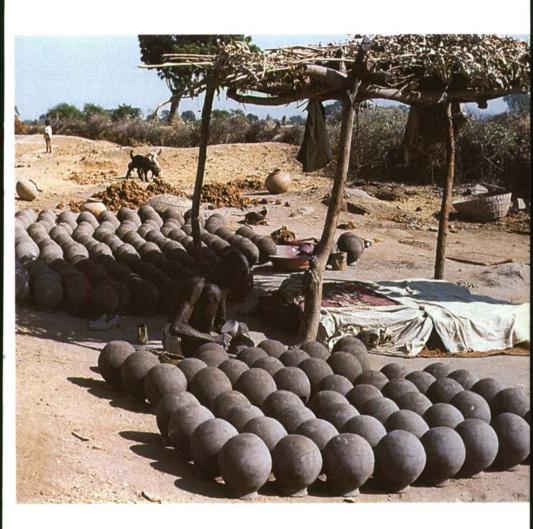


10. Typical shapes of Early Neolithic pots.

without complex equipment or permanent structures (figs. 11-12). The simple and so useful wheel was invented much later than the Neolithic period and came from the East.<sup>21</sup> At the beginning all the pots were dark in colour and unpainted; they were fired in a crude fashion at a relatively low temperature,<sup>22</sup> stacked beneath a pile of wood or other combustible material (figs. 13-14). Kilns still producing charcoal today are constructed in a



11. Handmade pottery workshop outside Kazuraho in India. Right: final kneading of the clay. Left: making the pot.

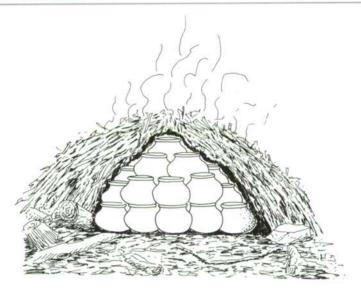


12. Drying handmade pots in an openair workshop in the Kazuraho district of India.

similar way (fig. 15). The primitive process and imperfect firing are evidenced by the sherds themselves: they have little resistance to water, often become discoloured when rubbed, and some of them disintegrate. The percentage of oxygen passing through the kiln during the firing was of basic importance for the colour.<sup>23</sup> In the beginning the stoking of the fire was not controlled and as a result the colour of the pots was not uniform or homogenous, but turned out an indeterminate brown, light or dark in places, with reddish, yellowish or black patches (fig. 16).<sup>24</sup>



13. Fired pots in a temporary kiln. Kazuraho district of India.

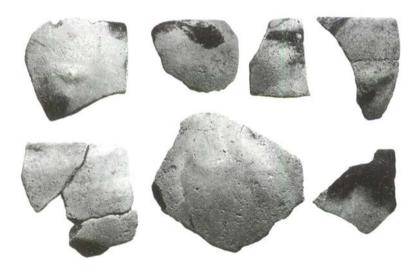


14. Schematic depiction of a temporary kiln.



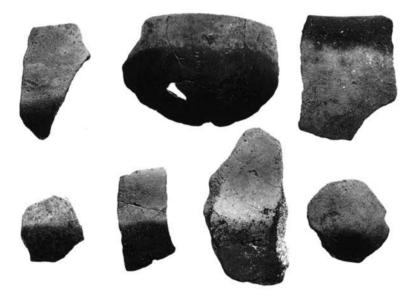
15. Charcoal kiln in a locality of the Ambracian Gulf (photo 1996).

It was probably just this polychrome effect resulting from the method of firing that the potters may have sought to control in order to vary the uniformity of the surface. This produced the first form of decoration, before paint was used, consisting of successive horizontal zones around the rim, black, red or yellow in colour (fig. 17). The change in colour is gradual, as in a rainbow, hence this category was given the special name of Rainbow Ware, although this is often confused with Mottled Ware. In the next stage the more skilled potters started to understand the processes necessary to bring about changes in the colour of the clay and further how they

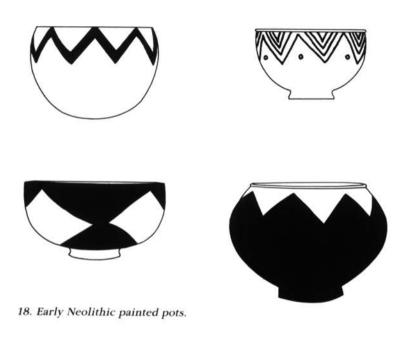


16. Early Neolithic Mottled ware from Nea Makri.

could produce a paint by using a different type of clay. They now also succeeded in producing surfaces having a uniform light colour on which they painted the first rectilinear designs (zigzags, triangles, lattices) in red (fig. 18). These basic groups of pottery, the Monochrome or Mottled and the Patterned Wares, as the painted group is commonly called, were the same or had only minor differences during the Early Neolithic period all over Greece, in Thessaly, Central Greece and the Peloponnese. This means that communications between the settlements were well developed at this time, and practical knowledge and skills were being disseminated from one



17. Rainbow ware sherds from Nea Makri.



19. Early Neolithic glossy black ware from Nea Makri.

region to another. At the same time, however, local conditions and improvised methods led to special solutions. In Attica, at least at Nea Makri, experienced potters used a clay derived from schist, which gave a highly decorative glittering appearance to their black pots (fig.19). These have very thin walls, extremely smooth surfaces and the care given to their manufacture was unequalled in any other region in the Neolithic period. Certain classes also show the great pains taken by the potters over the appearance of the pots with any means at their disposal. They made an effort to use clean clay, and in the case of the finest vessels, the cleanest possible clay, apparently without reckoning that this considerably reduced their durability. In other cases, in an attempt to render the walls impermeable, they smoothed and burnished both the outside and inside surfaces, even in the case of closed shapes, where the surface could hardly be seen.28

Briefly, then, we see that the first clay vessels were not very solid and had little resistance to water or fire, but the people who fashioned and used them give them a pleasing and sometimes striking appearance.

More generally we may say that right from the beginning of the Neolithic period people did not choose to live in natural shelters, but built organised settlements on deliberately chosen sites. There they built houses and ancilliary structures and made pots, some coarse and some fine, all of which indicates that they were seeking a better quality of life and possessed an artistic sense.

#### MIDDLE NEOLITHIC

While life itself continued smoothly in eastern Attica, more or less in line with the world of Central Greece and the Peloponnese, a number of sudden important changes can be observed in certain aspects of it. Without war, catastrophe or any prior desertion of the place, almost overnight, it would seem, new types of structures and advanced techniques appeared, which spread rapidly and were readily accepted by the local population.

The new methods and adaptations brought improvements to the way of life, and the various distinctive features were sufficiently numerous and far-reaching to characterise another, new period, which we call the Middle Neolithic.

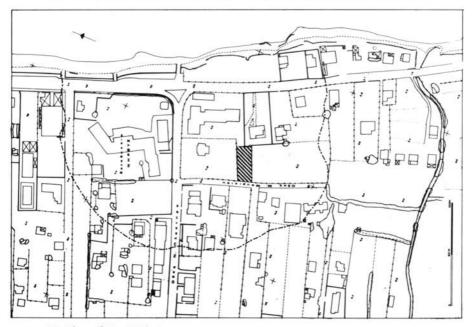
The settlements do not appear to have greatly increased in number, but while the old ones continued, new ones sprang up around them in the vicinity. In the Brauron area, for example, as well as the old settlement at Pousi Kaloyeri, a second Middle Neolithic habitation was built on a hill close by and a third on the hill above the Classical site in the locality of Livadi. At Rhamnous, apart from the old Gymnasium site in the Fortress, a new settlement is now known near the Temple of Nemesis.<sup>29</sup>

In the Bay of Marathon the settlement at Nea Makri appears only to have grown in size, but certain finds show that it was in contact with another neighbouring centre.

We usually have very few finds from these sites, but whole settlements with houses, work places, yards and whatever else has survived still remain hidden in the earth. The central region of Attica is still unknown to us. A few potsherds from the South Slope of the Acropolis and two figurines, one from the Agora and another, al-

legedly from Patissia (fig. 73) are the only objects with Middle Neolithic typological features.<sup>30</sup> These finds are very few and we cannot at the moment use them to postulate that the Attic plain was inhabited.

Much information and many ruins were concentrated chiefly in a part of the settlement at Nea Makri that was excavated in 1977 and which revealed among the buildings the way of life and history of the place.<sup>31</sup> At this spot the Neolithic settlement stretched along the shore on level ground, and it must have been very extensive by the standards of the time (fig. 20). We may also perhaps imagine that in addition to this densely populated district

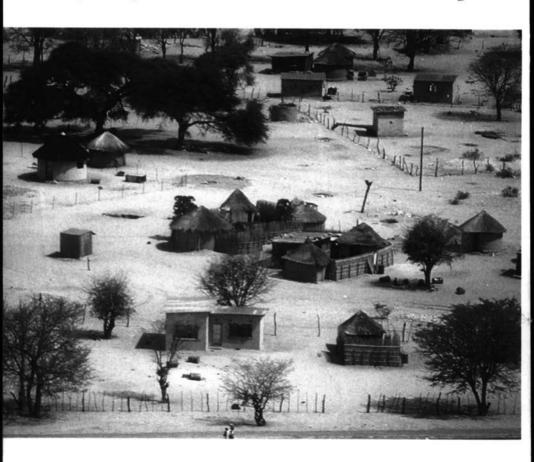


20. Plan of Nea Makri.

Willillilli The part excavated in 1977.

---- Hypothetical limits of the neolithic settlement.

there would have been scattered habitation in the surrounding area, as is the case today of towns in Africa (fig. 21). Most of the site on the shore has been washed away forever by the waves, but it was still possible until recently to see potsherds, animal bones and stone tools sticking



21. Scattered huts on the outskirts of the Botswana town of Maun (Africa).

out from the low cliff over the beach (fig. 22), direct evidence of the long and intensive occupation of the place.<sup>32</sup> The excavation and study of the finds has shown that the Middle Neolithic period followed directly on the preceding Early Neolithic one with no signs of a break, chronological gap or radical change in the old features. The same basic population seems to have remained in the settlement, but to have learned to live better and to have had greater technical knowledge and mobility.



22. Beach at Nea Makri by the site of the Neolithic settlement (photo 1954).

## **Dwellings**

The surviving ruins indicate that all the houses were built of unbaked bricks on a low stone socle. In the beginning they had no proper foundations to anchor the walls to the ground,<sup>33</sup> but nature seems to have taught them that the bottom of the mudbrick walls needed reinforcement with stones to withstand flowing and standing rainwater (fig. 23).

The houses had well beaten earth floors strewn with fine pebbles, while coarser sea pebbles were laid down in the outdoor areas, alleys and yards.

The roofs, single- or double-pitched, depending on the width of the room and how close it stood to the next ones, were made of interlaced branches and reeds for the rain to run off.

The openings of the houses, if they could be closed, would have had doors of branches or hides attached to a frame, and the same openings admitted light and fresh air. No signs of windows have survived, nor is it thought there were any.

Up to now no complete building has been found to give us an idea of the exact shape and size of the houses. Many, however, appear to have been oblong with a single room and relatively straight walls; others were quadrilateral, usually with irregular corners, since the builders had not yet learned to fit stones and bricks together to form right angles. In general, however, they can be considered rectangular, and no circular or curvilinear structures were found anywhere.

This simple house construction, with minor local differences, was to be found all over Greece. Here at Nea

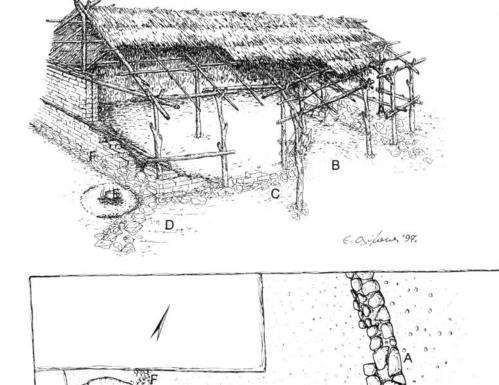


23. Stone base of a mudbrick wall at Nea Makri.

Makri, while the Middle Neolithic period was still at an early stage, the walls of the houses were reinforced with a system of timber ties.<sup>34</sup> Vertical poles were incorporated at intervals into the walls close to weak spots near the openings and wall ends (fig. 24). They were set in a straight line and appear to have been lashed to cross pieces at one or two points in their height and at the top (fig. 25). This formed a strong lattice that reinforced the structure of the wall and at the same time formed a tough



24. Stone base of a wall at Nea Makri with sockets for the vertical wooden poles.



25. Plan of Middle Neolithic house walls at Nea Makri (below) and reconstruction of the house showing the construction (above).

framework able to support the weight of the roof. At Nea Makri the positions of the poles can be clearly seen. In the reconstruction drawing we have added the lengthwise timbers built into the upper part of the walls and forming the horizontal components of the framework.

Reinforcing walls with a light timber framework is still practised today in vernacular house construction (figs. 26-27). But timber framing with thicker poles is a relatively



26. Mudbrick house in the district of Sykourio (Thessaly) with horizontal timbers built into the wall (photo 1974).

advanced technique and is a time-honoured method in many types of construction at different periods and in many parts of the world. In Neolithic Greece, however, it was still quite unknown and remained so in the Aegean area throughout the Neolithic period. Only in Cilicia do we find houses built at this period with this kind of reinforcement, which makes the pioneering solution devised by the Nea Makri builders all the more impressive.



27. House in the district of Sykourio (Thessaly) with external struts for the thatched roof (photo 1977).

### Huts

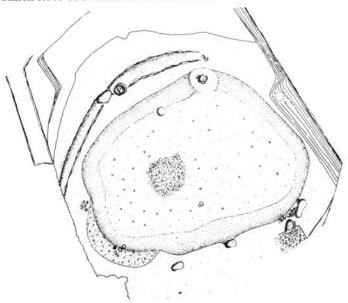
At Nea Makri they also erected next to their houses wattle huts which we know were not animal pens or stables, but annexes of unknown use. They were elliptical in shape, measuring 4-5 m overall by 2.50-3 m in width, with a sunken floor excavated 25-30 cm below the outside level, for some reason we cannot explain. It was thus easy to construct walls that were only 1.20 - 1.40 m high on the outside, while their height on the inside was as much as 1.50-1.70 m and people could comfortably stand up in them. The position of the entrance at one of the ends is confirmed by the existence of a step, which also meant that it was for use by people and not animals (figs. 28-29).

Their exterior construction appears the same as that of the rough huts we know from many parts of the world and from our own Sarakatsani (fig. 30).<sup>36</sup> Inside, however, they had eliminated the props supporting the roof and all of the interior was therefore free for use and moving around. This ingenious and effective solution transferred all the weight and stresses of the pitched roof onto a horizontal frame, which was lashed to the top of the vertical poles of the framework, thus dispensing with the axial supports (fig. 31).

On the floor inside the hut burning charcoal gave warmth without the naked flames of a blazing wood fire.



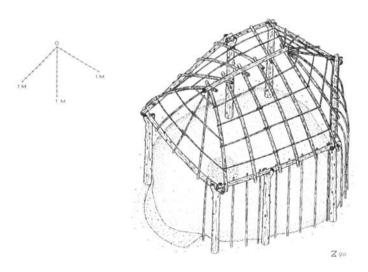
28. Sunken floor of a wattle hut at Nea Makri.



29. Plan of the floor of fig. 28.



30. Sarakatsani huts in Thessaly.



31. Reconstruction of the framework of fig. 28.

#### Storerooms

Apart from the mud-brick houses and wattle huts, the inhabitants of Nea Makri made use of another above-ground structure. With the arrival of the Middle Neolithic period the practice of keeping goods in underground pits came to an immediate end and was replaced by storerooms built on top of the ground.<sup>37</sup>

Their size varied according to the kind and amount of goods to be stored, but the basic features were the same: they were circular, 1-1.5 m in diameter and the same or a little less in height, with the capacity of a pithos or small room (figs. 32-33). The floor was covered with stones forming a drainage layer (Fig. 34) and the surface was levelled with mud. The small ones must have been roofed with thatch, but larger ones sometimes had walls of mud brick or wattle and daub on a stone socle, with a door opening and a conical thatched roof supported by a central pole (fig. 35).

The new storerooms were quite different from the old underground structures; they represented an important technical advance and reveal a radical change in people's ideas about the way to preserve goods: supplies were no longer put in pits as in Early Neolithic times, but kept in closed, ventilated rooms above ground, which were big enough to enter and were protected from wet and decay (figs. 35-36).

At this period similar storerooms were to be found only at Mersin in Cilicia and a little later on at Saliagos, an islet next to Paros.<sup>38</sup> On the other hand, pits remained the only method of storing goods for a long time to come in Central Greece.<sup>39</sup>



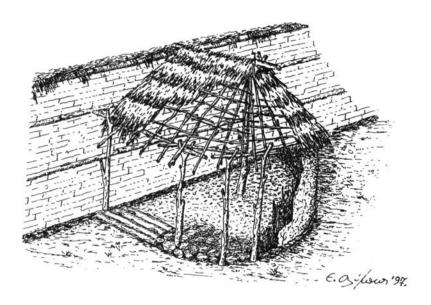
32. Part of the stone paved floor of a small storeroom at Nea Makri.



33. Reconstruction of the small storeroom of fig. 32.



34. Stone paved floor of a large storeroom at Nea Makri. In the centre the depression for the central pole.



35. Reconstruction of the large storeroom of fig. 34 showing the construction.



36. Similar storeroom in Kenya with a floor of treetrunks to prevent damp (photo 1988).

#### Other structures

Fires were usually in particular places in the settlement. Kindling a fire would have been a lengthy business, and we can assume that fires would have been kept constantly burning at certain points and never allowed to go out. 40 Black patches on the ground were caused by temporaty makeshift fires, or at least show where charcoal had been smouldering. Large fires, however, on hearths, on which food was boiled in pots or roasted on spits, were always outside the houses and were kept burning for many years. Simpler ones were laid in shallow pits (fig. 37), from which the ashes were removed from time to time; others were on the ground and enclosed by a row of stones (figs. 38-39); the best fireplaces, which were uncommon, had the form of a  $\Pi$ , like our familiar firedogs41 with a course of stones at the back to retain and reflect the heat (figs. 40-41).

Daily living and the normal household operations obviously created refuse. It is often said that the thick layers of fill at a settlement were formed by the steady accumulation of waste material, rubbish, etc., which were left on the spot without being removed. It is a fact, however, that not many objects are found on the floors of the houses, 42 which means that the closed areas were cleaned in some fashion and the rubbish was thrown into pits or simply outside into the yard. Unhappily this is a common practice that still survives today (fig. 42).

The hearths, pits and other small structures would in each case have been made by a few individuals or a family, according to their means and needs. Clearly, however, the existence of large numbers of people living to-

gether in one place would have led some groups to carry out common works for the good of all.

A single well in the settlement (fig. 43) would have provided water for a number of families, but digging with stone picks, hardened wooden spikes, large animal bones or horns could at most only have removed the topsoil down to the underlying rock, and the results would have been meagre.

The mud and water that deluged the Nea Makri settlement during the rains obliged the inhabitants to construct a wide solid road. A large section of it was paved with smooth sea pebbles: it had a raised, slightly cambered surface and the gradients were consolidated with stones or a specially hard surfacing, and all the evidence



37. Hearth pit in a Middle Neolithic level at Nea Makri.



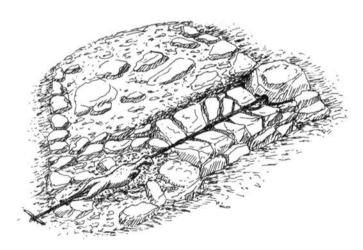
38. Hearth with a stone surround next to a smaller circle.



39. Reconstruction of the hearth of fig. 38.

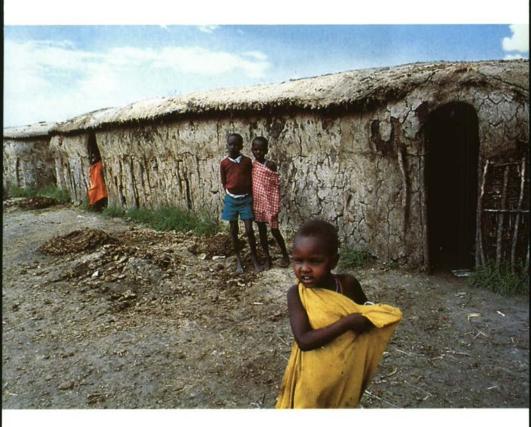


40. Built hearth. Right, wall to support a spit.



41. Reconstruction of the hearth in fig. 40.

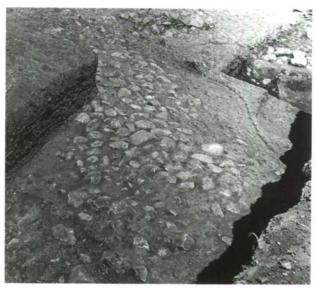
indicates a road construction similar to our well-known kalderimia (fig. 44). We may suppose, too, that this solid construction was also necessitated by the frequent heavy traffic of people and animals from the settlement to the seashore and by crowds of people going to other settlements.



42. Garbage dumped outside a Masai hut in southern Kenya (photo 1988).



43. Mouth of a well at Nea Makri, showing the rim worn by use.



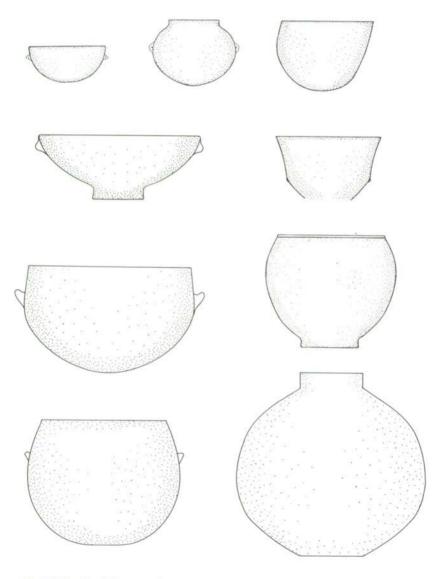
44. Middle Neolithic stone-paved road at Nea Makri.

## Pottery

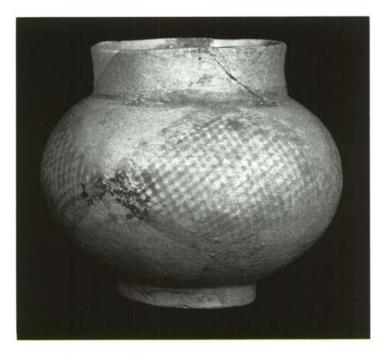
The greatest changes in this period were in the pottery. All its features, the techniques, styles and even the materials were now different.<sup>44</sup>

It is true there were no noticeable changes in the ordinary vessels used by the household in daily life. They were generally forms of bowls, and the larger ones were like cooking pots: they were roughly hemispherical, narrowing towards the mouth, with a curved bottom or low base (fig. 45). The potters by now had learned from experience what additives the clay needed to withstand high temperatures, how to make the walls watertight and how to give the surface a uniform colour.

The shapes of the finer pots, however, and some of the luxury vases changed a little and their appearance even more (fig. 46). We can see that the settlements copied the styles of both the neighbouring regions, Central Greece and the Peloponnese.45 The painted pots were covered with a thick slip and decorated with red paint. which was also thick. Vertical, oblique and crossed lines formed small and large triangles, rhombs, rectangles and broad, sometimes serrated bands. Another category, the most characteristic of this period, was the one known everywhere as Urfirnis, because originally it was mistakenly thought that the burnished paint was a primitive varnish. Some archaeologists maintained that the style had originated in the East, but it is now believed to have started in the Peloponnese<sup>46</sup> and to have spread to Central Greece, but it never reached the Cyclades or Thessaly. The pots and sherds are easily distinguished from other wares thanks to their particular characteris-



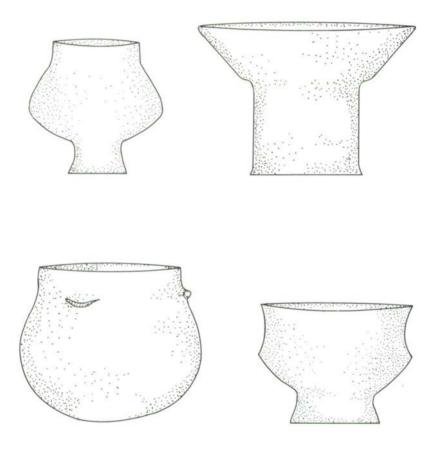
45. Middle Neolithic pot shapes.



46. Middle Neolithic painted pot.

tics, which are always found together in every region and settlement wherever they occur (fig. 47).

The composition of the clay, high firing temperature, technique of manufacture and the new, free shapes with curves and carinations created an integral unity found only in *Urfirnis* pottery. The most striking of these features is the usually burnished paint, red to brown, which adheres closely to the clay body, and is often so thin and sometimes watery that the surface of the pot can be seen underneath.<sup>47</sup>



47. Urfirnis pot shapes from the Peloponnese.

Similar *Urfirnis* pots are found in Attica, chiefly around Brauron, but at Nea Makri, where they appeared at the beginning of the Middle Neolithic, they had blemishes and were generally undecorated. The fact is that at this site in particular the potters, who were very proficient at making certain wares, never succeeded or probably were never interested in decorating their pots with paint, which was the common practice in all the ancient world. The few scattered examples of painted decoration that have been found are valuable for chronology and show that the local potters were familiar with the styles of the time, but rarely copied them. They concentrated on their own creations, but may well have been familiar with distant models that have also been recognised here and there in the distant East.

Very soon and right from the start of the Middle Neolithic period pecular types that did not yet exist in any other Aegean region made their appearance at Nea Makri alongside the ordinary and fine wares. A new burnished brown-black slip on relatively fine pots with certain specific traits<sup>48</sup> became the characteristic feature of local production. Also unusual and certainly esteemed were a very few elegant white vessels<sup>49</sup> made locally, but from kaolin, a white clay exported from Melos to coastal settlements in Attica (fig. 48). The particular Nea Makri style, however, consisted in a type of decoration which was not painted on the pot, but incised with consummate technique and never successfully copied elsewhere.<sup>50</sup>

The incised decoration was repeated in a conventional way on pots with the dark burnished slip and on other, cheaper, orange coloured pots made from a sandy clay

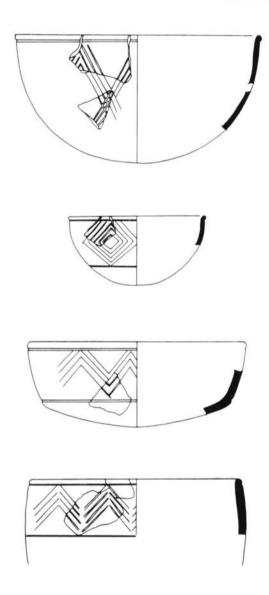
(fig. 49). The shapes comprised small and large open bowls with round bottoms and without any special base or other features. The decoration is incised around the rim in a wide zone bounded by two lines and always consists of large parallel zigzag lines or concentric rhombs in a row (fig. 50). The precisely drafted design is clearly and symmetrically incised and then filled with white clay.<sup>51</sup> The incisions are thus concealed and the design stands out conspicuously against the dark-coloured surface and appears as though executed in white paint.



48. White ware from Nea Makri.



49. Incised ware from Nea Makri.



50. Shapes of pots with incised decoration from Nea Makri.

From this description of the Middle Neolithic finds, a picture of the period and the history of the region begins to emerge. First of all we see that the greater density of the settlements is accompanied by new elements, larger or less in number according to the site. This means that communication routes had expanded, the relocating groups were familiar with new ways and the dissemination of knowledge occurred without conflict, destruction or the annihilation of the original population.

The earlier inhabitants stayed on in the region, accepted the newcomers, enlarged their contacts with the world around, kept in step with the inhabitants of Central Greece and the Peloponnese, and took an active part in the life of the time.

In some settlements, however, like the large one at Nea Makri, the newcomers must have been so many that they immediately imposed their presence, the previous knowledge they brought with them and their advanced way of life. Here we can detect many more new features and important changes, and their impact was so immediate that we have to think that they were directly used by the bearers themselves of the new elements. The simultaneous appearance of so many new methods and peculiar shapes cannot have been due to a gradual penetration by fully fledged, superior systems brought back by the old inhabitants from distant voyages. The most plausible explanation is that we are witnessing the establishment in the old settlement of new groups who immediately imposed their own practices, causing Nea Makri to break away from the uniform style and established features of the rest of Attica.

#### LATE NEOLITHIC

The Late Neolithic period begins in Attica without any obvious major changes, but many small differences in the buildings, techniques and even people's basic ideas are now apparent. Various Middle Neolithic innovations that had originally been adopted with enthusiasm by large groups were still accepted or quickly adapted to local preferences and conditions, but others gradually died out and were finally discarded by the main core of the local people.

## Settlements

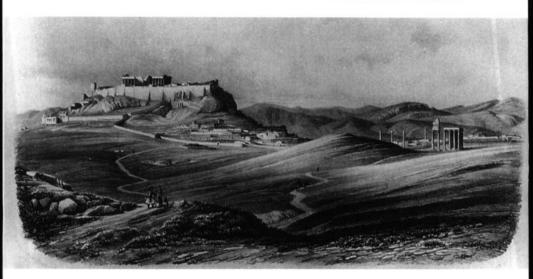
The chief characteristic of the new period was the multiplication of settlements.<sup>52</sup> The population spread to more sites and districts along the coast and on the inland plains, but always in places served and connected by natural routes (fig. 1). Certainly after many years of sojourn in the area, people would have become familiar with the wider region and moved into the hinterland. Wayfarers on their journeys learned to cope with the hazards of land travel; they discovered footpaths and made new trails through the countryside, learning to use the natural roads formed by dry stream beds and ravines.

With a little imagination and using their remains as a guide, we can follow the routes taken by the groups as they ventured further into the interior. They followed the riverbed of the Ilissos until they came to Athens,

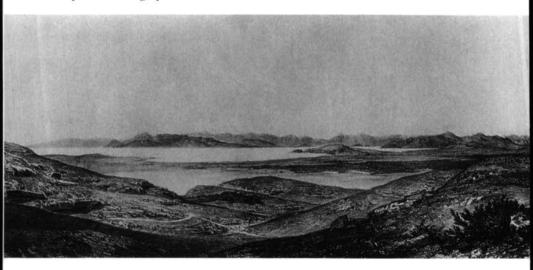
where they encamped on the rising ground of the Olympieion and many of them settled finally on the south side of the Acropolis (fig. 51). It was the first evidence we have of people passing through the plain of Athens, and out of many possible sites they singled out the rock of the Acropolis with its soil-covered flanks, a short distance from the river. They ignored its high barren top and settled on the slopes, chiefly on the south side, which was exposed to the sun and protected from northerly winds.<sup>53</sup> They cultivated their fields beside the river and could see the distant sea that linked them to the known world of the Peloponnese and Central Greece (fig. 52).

The first scattered groups of houses were built in the place where today stand the theatres of Dionysos and Herodes Atticus. The chief remains of the settlement now are a wattle hut with a constructed base and dirt floor, which was probably covered with wood. It had a hearth in the middle. In the same locality there were two storage pits and a considerable amount of pottery and other small objects, showing that people decked their bodies with ornaments made of stone and bone, and probably painted their faces with ochre.<sup>54</sup>

There must also have been other habitations in the plain or on its fringes, but they remain for practical purposes unknown to us, leaving behind no solid evidence, structures or utensils. A few finds are known from the Athens College hill in Philothei and a cave at Rizoupoli. Again, most of the groups preferred sites closely connected with the sea. There are many such sites, including Rhamnous, the Pan Cave at Oinoe, Brauron, Plasi, Vrexiza, Nea Makri, Pousi Kaloyeri and Kitsos Cave at



51. O. M. von Stackelberg. Southern Athens with the Acropolis and Olympieion. Lithograph.



52. O. M. von Stackelberg. View of the Saronic Gulf from the Pnyx. Lithograph.

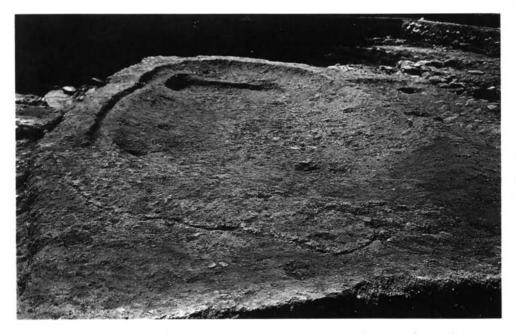
Lavrion, all cited as having produced Late Neolithic sherds. To these may be added Oropos in the north and Anavyssos, Lagonisi and Ayia Marina at Varkiza in the southwest. <sup>55</sup> The basic evidence for this period, however, comes from Nea Makri.

At this site, with its continuous habitation in the same place over the centuries and millennia, the new period is clearly, if not conspicuously, apparent. A closer examination of the details is needed to distinguish the new forms and the basic technical developments.

# **Building construction**

In the first place, the buildings retained the old simple plan of a one-room house with mudbrick walls and a thatched roof. The stone base however, no longer stood on the ground surface, but was bedded in a shallow trench forming a foundation. The stones were more closely laid and structurally integrated, giving greater solidity. The superstructure always consisted of mudbricks with timber ties incorporated at intervals.<sup>56</sup>

The way of constructing the thatched huts did not change, but was improved. The old system of roof supports was retained, leaving the sunken floor unimpeded by internal props and a trench was dug on the outside to collect the rainwater; the entrance was still at one end and the threshold was spread with hard material (figs. 53-55). Additionally the plan of the hut was now a symmetrical oval, the entrance being protected by a porch on the outside, and the wattle walls were carefully



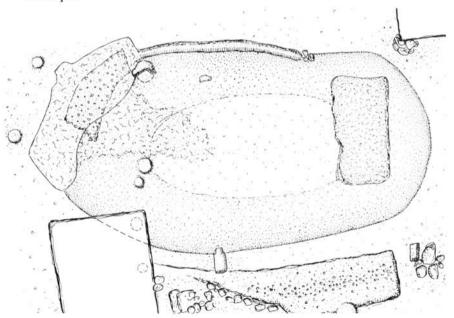
53. Sunken floor of a Late Neolithic hut. In front can be seen the mud tracked onto the entrance threshold by people traversing it.

braced (fig. 56). Even better, the interior of the hut must have been lined with mud, because they were able to burn large logs on a permanent fire in a wide pit.<sup>57</sup>

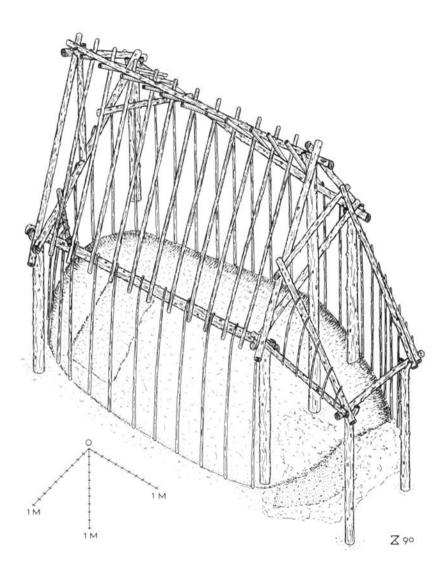
No other structures from this period are known, but since the storerooms above ground with a stone paved floor existed until the last years of the Middle Neolithic period, it is likely that the same type of storerooms persisted into the Late Neolithic at Nea Makri.



54. Floor of the hut in fig. 53. Pole holes can be seen and on the right a hearth pit.



55. Plan of the hut floor in figs. 53-54.



56. Reconstruction of the hut framework in figs. 53-54.

## Pottery

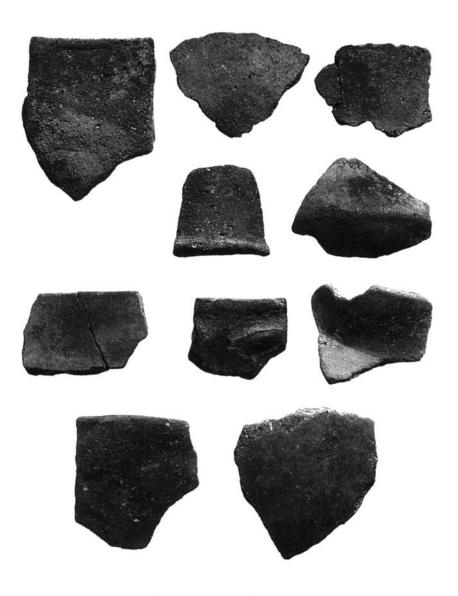
Most of the evidence we have comes, as usual, from the pottery. The abundant fragments, large and small, decorated and plain, worn, scrappy and even shapeless, are always valuable, especially when they are found in undisturbed archaeological levels.

In Attica, as in many parts of Central Greece and the Peloponnese, the Late Neolithic brought with it changes in the principles followed by the potters. Instead of the evolution and improvements in technical processes we observed during the Middle Neolithic period, the pottery now gives the impression of inferior quality and crude manufacture. The reality, however, is different and the reasons leading to this picture are immediately apparent after a preliminary examination.

In the first place, the everyday plain, unpainted vessels, those used for ordinary household needs, are frequently no longer a uniform brown colour. The surfaces have blots and patches, rather like Early Neolithic ware (fig. 57), but the variations in colour were not due now to incompetence or ignorance of the principles of firing, but to indifference to the final appearance of household and cooking utensils.<sup>58</sup>

The walls of the pots are thin and hard, but the clay is coarser and often spongy. From long experience, the potters had now learnt that the many small holes and the fine grits in the clay were sometimes necessary, since they helped the vessels to withstand the high temperatures of a strong fire.

The finest pots and those with decoration are similar in style all over Greece. In Central Greece and the Pelo-



57. Late Neolithic sherds with spongy walls and mottled surfaces.

ponnese, as well as in Thessaly in the early years, a uniform type of decoration prevailed, distinguished chiefly by the quality of the painting. This Matt Painted ware,<sup>59</sup> as the name implies, stands out because of the dull brown or black motifs, which are flat and lifeless and quite without burnish or the slightest lustre (fig. 58). The designs consist of combinations of rectilinear and various curvilinear motifs,<sup>60</sup> including hatched tri-



58. Cylindrical base of a large Matt Painted pot from Pan Cave.

angles and fringed, zigzag, horizontal and oblique lines which may be matched by dense wavy or open curves. But while there are more ornaments, they are organised in a formal disciplined manner. The motifs are drawn with precision and regularity, either vertically from the rim to the base or horizontally around the body and neck, in narrow zones, leaving large expanses of the surface bare (fig. 59).

As well as in the construction and decoration of the pots, there were changes in the shapes. <sup>61</sup> Many of the open shapes become shallower, with strongly curving walls, and others are carinated. The large closed vessels used for carrying or storing liquids are given one, two or even four wide handles from the rim to the shoulder. Handles on the open shallow bowls, if present, are wide and short.

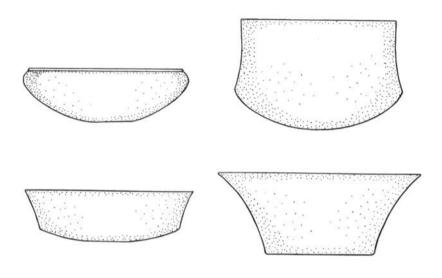
All these typical features of the period suggest that people in Greece were becoming acquainted with the copper vessels that were now made in other countries. The carination formed by the junction between two sheets of copper, the sharp curve formed by bending a sheet, and the wide handles resembling strips of metal were imitated in clay. The impression made by the appearance of the new material in everyday life must have been sensational. There was no way of acquiring it yet, but the potters attempted to render some of its features in their clay vessels.

In spite of all this we see the inhabitants of Nea Makri in particular confronting with conservatism the technological revolution that was taking place at this time on the further shores of the Aegean in Asia Minor and the East. There was a real change in the quality of the pottery, but the differences in the shapes were limited and



59. Matt Painted pots from Kitsos and Pan Caves.

carinations and acute curves were few. 62 The household wares are not easily distinguished from the earlier ones, and the large closed vessels retain their common utilitarian shape and lack the new wide handles. The technical innovations are more clearly seen in the thin walls and were applied by the more progressive potters (fig. 60). However, based on the very few finds from the settlement with the new look, we conclude that after early experiments and attempts at imitating foreign models, the potters continued to use their own familiar method of decoration. The simple and very common way of decorating pots with paint was used by only a few and for very simple, always rectilinear designs, like horizontal or oblique bands, with no curves or complex combinations.



60. Shapes of fine Late Neolithic pots from Nea Makri.

On the contrary, local usage and tradition clung to the technique of incision, which is much more difficult to use, requiring special care, experience and standardised execution. It is also, however, precisely in the execution that the characteristics of the period show themselves. The workmanship is more careless, the lines less deeply incised and the same, familiar motifs are not rendered with the old sharpness.<sup>63</sup>

### Caves

In the Late Neolithic period certain caves in Attica and many parts of Greece began to be used. As we have seen, in the beginning the first permanent inhabitants built open-air settlements on chosen sites and, in spite of their simple technical means, avoided living in ready natural quarters. The trouble, work and time needed to erect a hut of branches, reeds or mud, with stones as their only tools, did not count for people in the Neolithic period, whose paramount aim was personal survival in the face of the constant dangers posed by nature.

Caves are generally dark, damp and cold, frequently large with high roofs and broken floors. Natural obstructions, like steep inclines, fallen rocks and water greatly limited the space that could be utilised by people. The apparently large interior ends up by being cramped for habitation, makes moving around difficult, is uncomfortable for daily living and often impossible to keep warm, especially in the winter. Sometimes water is too distant to cover the basic needs of living. And we must also reckon that caves are not usually formed in flat country where access is easy, but tucked away in high hills and mountainous regions.

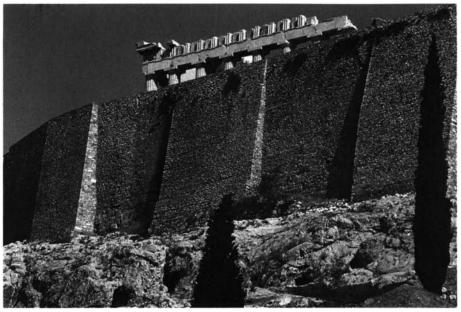
Two large caves are known in Attica, at Marathon (figs.61-62) and Lavrion, and another has recently been excavated at Rizoupoli. <sup>64</sup> Two or three others in Mesogeia contain very few or doubtful remains and lastly, in Athens, two small cavities in the south side of the hill of the Acropolis, high above the Theatre of Dionysos (fig, 63), must have been used as shelters from the Neolithic period on. <sup>65</sup>



61. Interior of Pan Cave at Marathon.



62. Excavating the fill in Pan Cave. Uncovering the pot in fig. 59.



63. Entrance to the caves on the south side of the Acropolis.

The cave of Marathon, or Oinoe, is better known as Pan Cave, 66 since throughout Classical times it was a cult place for that singular god. The other cave, high on a mountain above Lavrion, close to Kamariza, takes its name from the famous brigand, Kitsos, who at one time made the cave his hideout. 67 In the thick levels excavation revealed finds that tell us much about the use and nature of the habitation. As one would expect, most of the pottery fragments are from thick, coarse vessels.

In both caves, however, numbers of broken and complete pots were also found decorated in the Matt Painted style of the period. Other finds included tools for heavy and delicate work, small ornaments, and even a com-



64. Pot full of beads as it was found with a cover in Pan Cave at Marathon.

plete necklace with hundreds of beads, hidden in a covered pot in the Marathon cave (fig. 64).

To have a better understanding of how caves were used at that time, we need to look at their particular natural environment. At Marathon there is a spring 500 m away and the whole locality, with its mild climate and rich soil, is famous for its cultivated fields (fig. 65). We

see from the finds that the few inhabitants of the cave, probably farmers, maintained contacts and relations with the neighbouring settlements, and the conditions were such that they could live in it all the year round.

At Lavrion, however, the situation was different. First of all, the approach was a steep uphill climb. Secondly, there were neither fields nor drinking water near the cave, only good pasturage. The interior usually drips water and, especially on rainy days in winter, the shelter it



65. Plain of Marathon from Pan Cave.

would have provided would have been very limited. Even so, the finds show that for all its disadvantages the cave was not just a place of shelter for transient groups. Inside, there was a well-organised habitation, perhaps of shepherds and hunters, who lived crowded into the front part for many months of the year, but not during the winter.

In the case of the small caves above the settlement at Athens, they could obviously have been used for ancillary purposes such as storerooms, workshops, stables, etc.

The conclusion is that the caves of Attica were not used by nomads in times of need, adversity and migration, but were supplementary habitations for groups who maintained their links with the dwellers in the organised lowland settlements.<sup>68</sup>

Briefly, then, life in the caves was not an indication of poverty, decline or retrogression, but of a growth of activity outside and beyond the settlements.

### SUBNEOLITHIC

The Subneolithic, Chalcolithic, Final Neolithic or Neolithic II, as the last period of the Stone Age has been variously called, found Attica dotted with numerous settlements built in different localities inland and on the coast. The Neolithic world was now coming to its end, but life in the settlements was not on the decline.

The revolutionary discovery of metal, which had occurred much earlier in the East, now began to have a strong attraction for the inhabitants of the Greek mainland, although they themselves still apparently possessed no copper artifacts.

Outside of Attica there was much new movement in the Aegean, different groups made frequent sea voyages, goods changed hands, and what has remained for us, the pottery, came more and more to imitate the appearance of copper utensils.

In spite of the relocations, nearly all the old settlements kept their inhabitants, and new ones appeared as well (fig. 1)

## Settlements

The roads in the plains and along the riverbeds, known from the previous period, were now of even greater service. One group followed the bed of the Kifissos river, turned westward and settled in Palaia Kokkinia, near the Renti boundary. Others proceeded as far as Plato's Academy, where they built a settlement on a low eminence on the river bank, which continued to be in-

habited for many centuries until the Middle Helladic period.<sup>69</sup>

The original settlement in Athens seems to have grown, but the houses of this period have now entirely disappeared due to continuous, intense building construction in the area, especially on the south slope, during the ancient and medieval periods. To the west, however, at the foot of the Acropolis, where the famous Klepsydra fountain was built in Classical times, 21 wells of the last Neolithic period have been found. With their simple stone and wooden tools they could only dig down 5 or 7 m as far as the rock, and the need to obtain the very little water available probably forced them to dig a new well as soon as an old one dried up. However that may be, there were many wells, pointing to the existence around the Acropolis of an organised community with a considerable population.

From other sites in Attica, like Kato Souli, Plasi, Thorikos, etc., <sup>71</sup> we know of only a little pottery with Subneolithic features, always scattered and mixed with later objects and not associated with any structures. More has survived in the Pan and Kitsos caves, testifying to the close relations between their occupants and the people of the plain.

Undisturbed remains of a settlement of this period have been found only at Nea Makri, overlying the levels of the old known establishment. The inhabitants constructed their thatched huts on exactly the same sites that their forebears had chosen hundreds of years before, only now the building techniques were different. The floors of the huts were at ground level and therefore no longer needed a drainage trench outside. The wattle walls were plastered inside or out with mud, but a light-

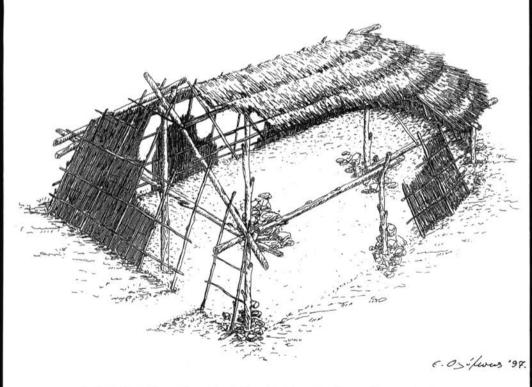
ed fire was still evidently considered dangerous and hearths were built outdoors. The door opening was sometimes in the long side, allowing air and more light to penetrate the room. In the smaller huts the roof followed the oval outline of the floor and a radial framework was supported on a central pole (fig. 66). The larger ones seem to have been roughly rectangular with a double-pitched roof supported on the sides and on a central longitudinal row of poles (fig. 67).



66. Reconstruction of an oval hut at Nea Makri with the entrance in the long side.

Other houses were built of stones and mudbrick, but their shapes have been lost owing to the cultivation of the fields, because the level of the settlement was now considerable higher and the ruins lie only a few centimetres below the modern surface.

After two thousand years this settlement was finally abandoned at the beginning of the Subneolithic period, without having undergone any perceptible decline. The



67. Reconstruction of a hut at Nea Makri with the roof supported on a central line of poles.

only apparent indication of what might have caused the destruction was the thick layer of mud which had covered the whole locality on one or more occasions after torrential rainstorms.<sup>73</sup>

Apart from Nea Makri, rescue excavations in recent years have added further evidence for the Subneolithic period.74 At Tsepi (Marathon), close to the large Early Helladic cemetery,75 and at Loutsa, 500 m. from the sea, pottery and walls were found whose use has not been determined. Work on the construction of the new airport at Spata brought to light on top of the high hill of Zagani a series of house structures, storerooms and a very well preserved wall, 3 m thick, belonging to the Subneolithic or Early Bronze period. At the site of Kiafa Thiti, on a hill commanding the road from Mesogeia to Varkiza, a level with pottery and other small finds was excavated, as well as part of a thick fortification wall apparently belonging to this period.<sup>76</sup> On the west side of Mt Hymettos, 1.5 km from the sea, a low height in the locality of Kontopigado Trachonon, cut today by the construction of the Vouliagmenis and Gounari Avenues, was first inhabited in the last Neolithic period by a group which must have been connected with the working of and trade in obsidian.77

Finds from the other sites are even poorer. To obtain some picture of the extent, character and importance of the settlements that have been lost, we have therefore to rely on the features of the place and the possibilities afforded by the natural environment. A special case is that of Thorikos at Lavrion. The inhabited area extended from the twin conical peaks of Velatouri down to the sea, and it overlooked two little sheltered bays (fig. 68). The site was convenient for traders and sailors making fre-

quent voyages, who were able to beach their ships in one or other of the harbours, depending on the weather. The hill, in addition, held riches another sort.

For it was discovered not long ago that the rock contains veins of silver and lead<sup>79</sup> in an almost pure metallic state, which had been exploited in the Early Helladic period. It is therefore not unlikely that the Subneolithic inhabitants had made a similar discovery. The little pottery from this locality is of good quality and decorated with asymmetrical linear designs burnished onto the surface of the pots.<sup>80</sup>



68. View from the hill at Thorikos with the two natural harbours right and left.

# Pottery

Casual, almost fortuitous motifs are the hallmark of the new contemporary style of pottery that predominated all over the Aegean (fig. 69). From the Troad and Limnos to the Dodecanese, and from the eastern shores of the Peloponnese to the coast of Asia Minor, the finely crafted, luxurious pottery was decorated with disordered designs. The fine ware is monochrome, no longer the brown colour of the clay, but a deep, warm red, the colour of copper, or dark grey to blackish, like oxidised metal.<sup>81</sup>

The surface was smoothed and heavily burnished with a pebble or bone until it shone. When these pots have decoration, either the patterns alone are burnished, or else the ground is burnished, leaving the decorated parts matt. The designs consist of groups of parallel lines, not forming constant or geometrical patterns, but running in different directions and covering a large part of the inner and outer surfaces of the pot, one group usually interrupted by another. The designs have in fact a curious appearance, and at the beginning there seemed to be no explanation as to how the change had come about and why they were so different from the earlier, organised and methodical painted geometrical designs. Everywhere, however, potters were trying to imitate copper, and it is quite possible that the straight lines running in every direction were an attempt to render the gleam of metal as it constantly changes with the light and the angle of the viewer.

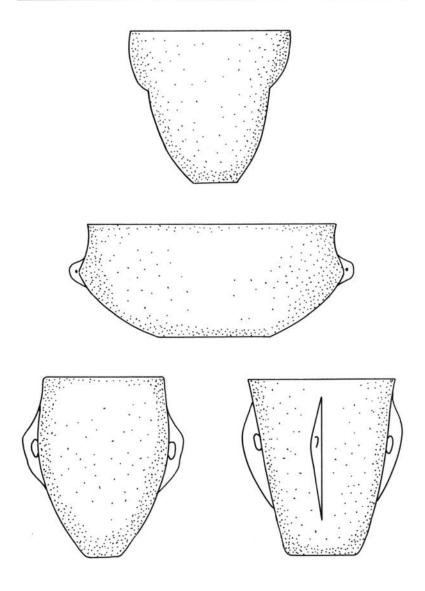
Exceptions to this rule are some sherds from Athens and Marathon with designs not burnished but painted in

white,<sup>82</sup> but in the same disordered and casual style. At Nea Makri the new irregular motifs were copied by only a few potters, still using the incised technique, and in the short remaining span of the settlement's survival they remained persistently faithful to the traditional motifs of zigzags and rhombs (fig. 49).

The influence of copper can also be seen in the forms (fig. 70). There are conical shapes, often with a carina-



69. Casual, asymmetrical designs on Subneolithic pottery.



70. Shapes of Subneolithic pots from Kitsos Cave.

tion in the wall imitating the ridge on the metal original. The bases are flat, and the handles of both fine and coarse vessels are wide, like bands of copper, or divided like forks.<sup>83</sup> Ribs and pellets on the body of the pots imitate metal joins and the small circular discs on the handles resemble rivet heads (fig. 71).

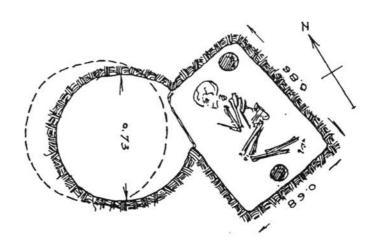


71. Handles of Subneolithic coarse pots from Pan Cave.

### **BURIAL CUSTOMS**

The burial customs of every people and race reflect man's attitude to death, affirm his conception of the dead person's fate and constitute an important chapter in the world of the spirit. Many of these customs were originally established for natural reasons imposed by the environment, some beliefs grew up in accordance with the existing resources in each region, and finally particular rites were formed by the repetition of the common practice.

Throughout Greece in the Neolithic period and earlier, the dead were buried in the ground. Occasionally,



72. Well-like grave in the Ancient Agora at Athens (I. Travlos).

very rarely, there is evidence of cremations, but these occurred chiefly in Thessaly, with a few in the Peloponnese. 4 Only two burials have so far been found *in situ* in Attica, both of them Late or Subneolithic: one in the Pan Cave at Marathon, and the other in the Ancient Agora at Athens. 5 There a few human bones were found mixed with pottery, stones and other material in wells. In Kitsos Cave, also, different parts of bones of adults and children were identified belonging to 18 individuals, but not a single skull was found. 86

The Marathon burial was of the simplest kind. The pit for the dead person was dug into the soft wet earth in a corner of Pan cave near the entrance. The tomb in the Agora, on the other hand, was quite different. A small circular shaft 3 m deep was excavated at the foot of the Kolonos Agoraios behind the Metroon and at the bottom a small rectangular pit was cut for the burial itself (fig. 72). The entrance in the form of a vertical shaft is unique and could be interpreted as an unsuccessful attempt at digging a well. But if so, then why was the dead person not simply deposited in the bottom of the well, but in another, specially excavated pit? The case is unparalleled in terms of custom and inexplicable as a practice.

With such odd and scanty finds it is clearly not easy to determine or describe in what particular manner or with what rituals and ceremones the Neolithic people of Attica parted from their dead. From the dearth of relevant finds, however, we may conclude that during this period there were no cemeteries or any special place in the settlement where the dead were interred.<sup>87</sup> In every case the graves were opened by chance either near houses or slightly further away from the settlement. A

feature common to the whole period is the small pits, so small that they could only hold a corpse laid on its back or side in a strongly contracted position. Different explanations have been offered for this posture, for example that it represented a sleeping or a foetal position, and so on, but it is also evident that the small size of grave involved less hard work and shortened the time required to dig the pit.

About the preparation of the corpse, the way it may have been dressed or honoured, and the whole burial ceremony we know nothing. What is sure is that people believed in some sort of life after death, at least for a certain time, because the dead person needed not only to be fed, but clothed and even adorned. In the Agora grave two pots, originally filled with provisions, had been placed beside the body, and at Marathon many necklace beads were found next to it, carefully preserved in a covered pot. (fig. 64).

## **FIGURINES**

Often among the ruined remains of the settlements small human figurines of different sizes are found, usually 10-12 cm in height. Most are of clay, a few of stone and more rarely of some other material. The majority and the best known are female, many fewer are male and a considerable number have no indications of sex; simple body parts also occur, like arms, legs and heads, which were made as separate entities. Another class depicts animals and birds of kinds that are clearly identifiable. There are also occasionally utensils and objects, like furniture, ovens, houses and scenes of daily life.88

The figurines are found in the settlements both inside and outside the houses, but not in graves. Precisely how these usually human representations were used and kept we do not know. They were surely not just ornamental objects and must have had some connection with sympathetic magic. Buildings have been found at some sites which are thought to have been shrines, but their function also is not clear. What in any case cannot be doubted is that the powers of nature and the gods and daemons roused fear and anxiety among people, who sought protection from evil spirits with amulets, magic offerings and secret rituals.

Human figurines may also have embodied supernatural qualities and represented beings who, they believed, championed individuals in their struggle with nature and fate. The fat women, usually clumsily modeled with rudimentary or abnormal features, standing, sitting or with bent arms and legs, conceal some symbolism (fig. 73). The same goes for the rare male figurines, which re-

inforce the theory held by many that the fat figurines represented a goddess of fertility, the one we know better in the following periods from the whole of the prehistoric Aegean and the East.

For the other groups suggested interpretations of their function range from the simple figurative and incidental to the apotropaïc.



73. Female Neolithic figurines from Patissia (a) and the Ancient Agora (b).

### TECHNOLOGY AND ECONOMY

The pottery we have described by period was only one of the productive activities of Neolithic people and not in fact the most important. Vessels were also made from stone, although very few. The hardness of the material, their primitive means and the limited possibilities for creating plastic shapes allowed skilled stonecutters little scope in their work. In Attica there was considerable use of Pentelic marble with its attractive whiteness, as well as of softer rocks, limestones, sandstones and some volcanic kinds, which may have been specially prized for the exotic glittering inclusions they contained. They also made other objects and artifacts of perishable materials, now lost, such as wooden utensils and tools, baskets and mats, leather and woven clothes, and above all ships.

The tools, often made with patience and wonderful ingenuity, served the people in the settlement and the fields very satisfactorily. We do not have distinct types or different categories in Attica. The technological principles and the economy were generally similar all over Greece and we may therefore suppose that they would have been the same in Attica as elsewhere.

Tools were chiefly made of stone, bone, wood and potsherds. We should distinguish between two large groups: stones having more or less the right shape and durability were ground at one end, or on one face or side, and converted into efficient tools (figs. 74-75).<sup>91</sup> Rubbers, querns, mattocks and celts, on their own or mounted in wooden and bone hafts, served people in the home or field (fig. 76).<sup>92</sup>



74. River pebbles from Nea Makri made into tools.



75. Stone celts from Nea Makri.

These large tools, though not scarce, are not particularly numerous. On the other hand small tools made from sharp volcanic rocks, brown flint and especially here in Attica from the black obsidian, are exceedingly common (figs. 77-78). Many were fashioned into various shapes and for different purposes from small cores, using the appropriate percussion technique (fig. 79). They included blades, scrapers, points, knives, razors, sickles, saws and any other sharp implement that could be made from these stones. <sup>93</sup> All the settlements in Attica, partic-



76. Animal bones and a horn made into tools and hafts.



77. Obsidian with other stones at Nychia on Melos.

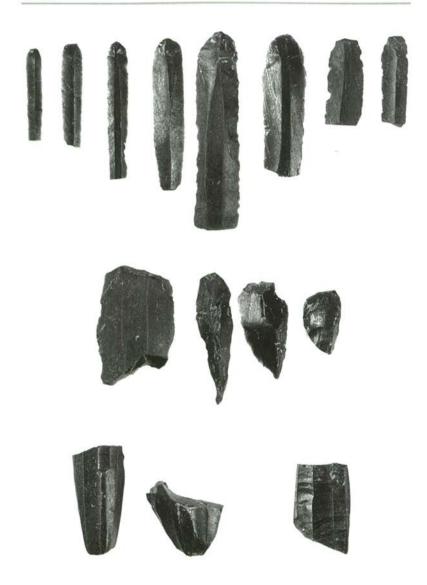
ularly on the east coast, displayed such an abundance of tools, both flake and core,<sup>94</sup> that it is immediately obvious they were centres of obsidian trade and working.

Tools of animal bone (figs. 80-81) were used for finer tasks not requiring much force. <sup>95</sup> The majority of those we find are awls, spatulas and needles with a long eye for the thread.

They also seem to have used fragments of broken pottery as tools. <sup>96</sup> This material was abundant, ready to hand



78. Pieces of unworked obsidian from Melos.



79. Blades and (below) cores of Melian obsidian from Nea Makri.



80. Pointed bone tools from Nea Makri.



81. Points, spatulas and on the right two cylindrical bone handles.

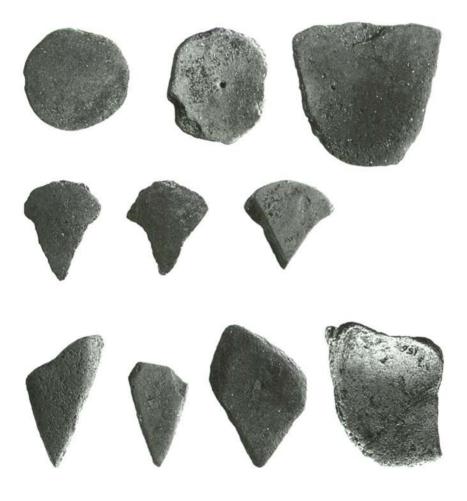
and useless for other purposes. They chose pieces of a suitable shape which with a little modification could be turned into a scraper, spoon, spatula, arrowhead or other artifact, whose function we cannot always determine (fig. 82).

Ensuring a daily food supply was an ever-present concern. Their principal diet would certainly have consisted of meat from domesticated or wild animals and fish. On every site large quantities of bones are found of sheep, goats, pigs and cattle, as well as large and small wild creatures like birds, hares, martens, deer, wild boar, etc.

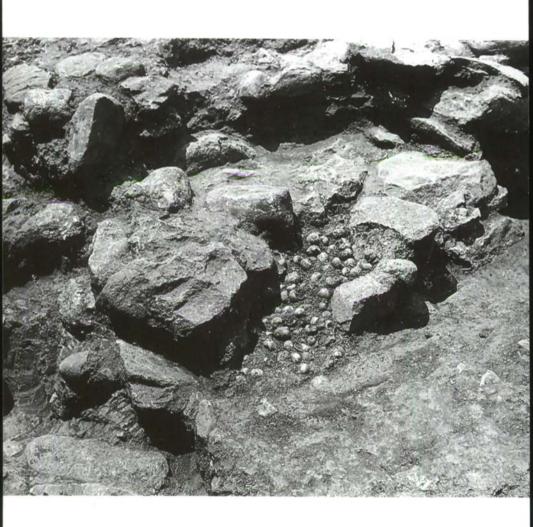
Fishermen brought home fish they had caught with fish-spears, weighted basketry fish-traps and nets of some sort. Some fishermen must have been very skillful and efficient, because they were able to catch tuna, a large heavy fish that is caught at certain seasons with strong nets, using special techniques.<sup>98</sup>

The earliest cultivated cereals were wheat, barley and pulses like beans, lentils, peas, etc. 99 Another excellent and plentiful source of food was the fruit of certain trees which ripened without any special care. From the pollen and seeds found in the earth at excavations we know that Neolithic people gathered figs, apples, wild pears, walnuts, almonds, chestnuts, mulberries, pistachios and honey made by bees in straw beehives.

To these sources of ready and handy fare can be added many wild greens and bulbs. Snails roasted in the embers were a common food (fig. 83), and people living by the sea collected crabs, sea urchins, pinnas, clams and other shellfish (fig. 84). 100



82. Pieces of pottery shaped into tools from Nea Makri.



83. Snail shells in a hearth at Nea Makri.

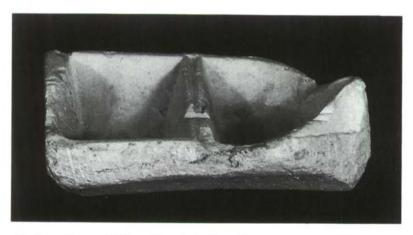


84. Marine shells. Food remains of the Neolithic period.

# Ships and communications

Only very few clay objects said to represent "ships" of the period have been found, and they come from settlements far from the sea. <sup>101</sup> The simplest has the shape of a dugout canoe, but the absence of construction details makes a general acceptance of this interpretation difficult. Another broader, five-sided hollow vessel with a transverse partition in the middle and terminating in a keel at the bottom, has a raised triangular "prow" and flat "stern" (fig. 85).

All these conjectural models of ships are dated to the Late or Subneolithic period and do not appear to bear any relation to real craft able to brave the sea and waves of the Aegean. Ships existed, however, and they were seaworthy enough to transport people and goods from the Greek mainland to the Cyclades and beyond. The proof is the Melian obsidian, which was in use very ear-



85. Clay ship model from Tsangli in Thessaly.

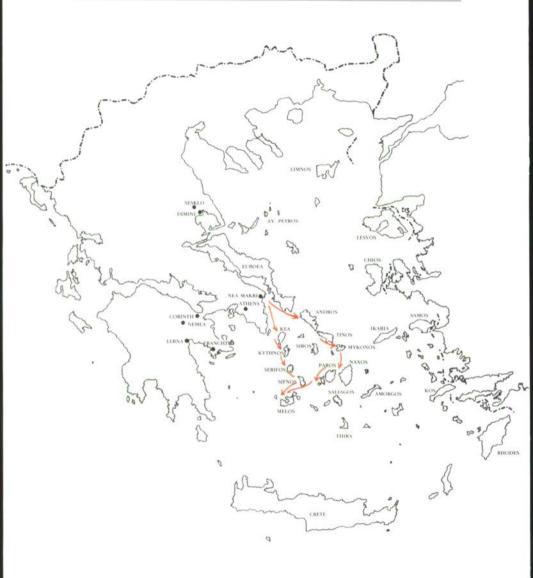
ly on the mainland, from the time of the first permanent human habitations.

For a long time, until the end of the Middle Neolithic period, ships were sailing the Aegean, but the Cyclades remained uninhabited. We know that people did not immediately venture to settle permanently, winter and summer, with their families and herds in the middle of the sea without direct contact with the mainland. Regardless of that, there was an organised trade in obsidian and it was transported by experienced and able seamen following established sea routes. 102

According to the basic rules of seamanship, imposed by the winds, currents and sea itself, the direct passage from the Peloponnese to Melos was not possible. Even today it is prudent for small craft to sail up the coast to some point abreast of Aigina and then steer SE for the islands. The work as well as the profit of the obsidian transport fell largely to Attica.

This simple knowledge of navigation throws light on the basic sailing routes, which were a virtual necessity for sailors of the time, given their means. Excavations have also uncovered large quantities of obsidian, both worked and unworked, in the coastal settlements of Attica, for example Nea Makri and Pousi Kaloyeri (Brauron). The voyage from these sites to Melos would have been relatively easy and dictated by geography (fig. 86). One route skirted the islands of Kea, Kythnos, Serifos, Sifnos and Kimolos, and another, longer one, is shown by finds to have included the islands of Andros, Tinos, Mykonos, Naxos and Paros. 104

The same factors, together with a few simple calculations, may serve to give a general picture of a ship in the Neolithic period.<sup>105</sup> First of all it is clear that such a voy-



86. Map showing Neolithic sea routes.

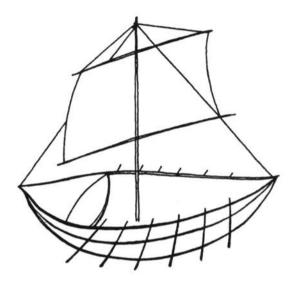
age would not have been possible for one man alone; he would have needed help and companions. Five or six persons, or even more, would have been necessary in order to relieve the rowers. It is quite likely that the ship had some sort of sail, probably rectangular, made of fabric or leather and hoisted on a mast to increase the speed of the vessel and assist the rowers (figs. 87-89). Furthermore the ship, made of planks or slender tree trunks, had to contend with the Aegean sea and would therefore not have resembled simple river craft. So as not to be swamped by the waves it would have needed a raised prow, as well as some sort of keel to prevent it from capsising. A rudder or steering oar on the stern would have





87. Depiction of a ship on a Minoan sealstone (1500 BC) with oars and a rectangular sail on a mast.

114



88. Schematic representation of a ship with oars and a rectangular sail on a mast.

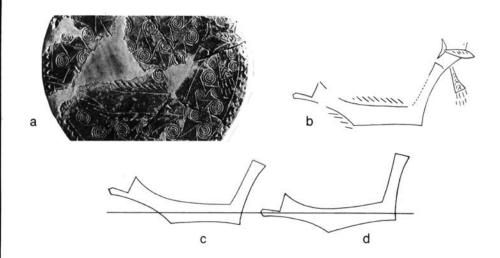
been simple to add, had they thought of it. Just such a craft, but without the mast, we see depicted in later sketches incised on clay Cycladic utensils, and there is no reason not to suppose that the Neolithic type was passed down and survived on the islands until the first Bronze Age period (fig. 90).

Manned by a crew of six or more persons and designed to carry merchandise, the ship must have had a length of at least 6 to 10 metres and the capacity to carry a cargo of anything from a half to one ton. This weight would represent a large amount of obsidian, especially if the material was loaded after it had first been roughly trimmed into cores at the point of origin. 106





89. Small craft in Portugal with a sail mounted on two masts.



90. a. Incised ship on an Early Cycladic utensil, b. Drawing of the ship, c. Ship's waterline according to the drawing, d. Correct waterline of the ship.

The average speed of such a vessel, if it had no sail, would have been slow, but in good weather it could have covered 10 - 15 nautical miles in a day. The best seasons for voyaging were spring and autumn, since the sailors would have wanted to avoid the winter storms and dangerous summer meltemia (strong diurnal northerlies). If we reckon on 12 - 13 hours of daylight, and if they sailed from dawn till sunset, they could have made land without having to navigate by night. Their progress would be affected by the currents and winds, but the voyagers would have felt safer in the daylight when they could see all around them, and more so when they could keep a piece of land continuously in sight. The would also have been relatively easy to predict the weather conditions just for a day.

After much voyaging and years of experience some sailors apparently decided to make their homes on the islands. We cannot know who were the first inhabitants or what mainland they left behind to go and live in the Cyclades. The only sure evidence we have concerns Nea Makri and its particular links with the Cyclades. <sup>108</sup>

The earliest settlement in the Central Aegean was excavated on the islet of Saliagos, next to Paros, and two special features of the finds stand out prominently. Firstly, the pottery is distinctive, with its dark brown, relatively lustrous surface and white-painted decoration. <sup>109</sup> In contemporary Peloponnese, Central Greece, Thessaly and Asia Minor the pottery has a different appearance, and this particular Cycladic combination of a dark brown surface with white painted decoration is generally unknown. <sup>110</sup>

The second equally distinctive feature is the partly

stone-paved circular floors belonging to the grain silos<sup>111</sup>, which were built like small rooms. We draw particular attention to these, because in the whole of Neolithic Greece the storage places were shallow pits dug in the ground. These two peculiar features, which have not been observed elsewhere, had, however, existed earlier in the Middle Neolithic period at Nea Makri, the where in fact the pottery was better quality: dark-faced and burnished with a more standardised decoration of incised motifs filled with white clay.

Even more specifically, one of the two characteristic Nea Makri motifs, concentric rhombs in a row, although not very usual elsewhere, appears in the islands always drawn with thin lines and rather crudely. These similarities are decisive, since they do not occur in common designs or decorations having a wide distribution, but in very specific and especially characteristic instances that occur only in two localities, Nea Makri and the Cyclades. The original would surely have been their earlier meticulously executed use in Middle Neolithic Nea Makri, and the less experienced Cycladic potters adapted the designs as best they could according to their own inferior abilities.

The conclusion from these comments is that the sailors of Nea Makri made frequent voyages to Melos to load up with obsidian. Eventually the islands that lay on their route became inhabited and very likely some of them were settled permanently. In any case the people of Nea Makri during their frequent voyages built up relations with the enterprising Cycladic folk and imparted technical elements of their culture to the first outlying inhabitants of the islands.

# CONCLUSIONS

The few concentrated or scattered and badly preserved Neolithic finds in Attica give a generalised but quite clear picture of the people of that time.

This extreme corner of the Greek mainland, facing eastwards, attracted people from very early on. From the traces they left behind them, they appear to have come from the sea, and for many centuries they remained close to it, turning their backs on the hinterland. Nature could not have had much to offer them there at that time. The rivers did not have a sufficiently substantial or constant flow of water to be a serious factor in their survival, the earth was not particularly fertile, although the mountains with their game were more or less easily accessible from the coast.

For many centuries, almost a thousand years, people lived in settlements by very makeshift means, served only by their empirical skills. The latest of these were farming and pottery making. Occasionally some of them left their villages to make contact with other settlements, exchange products or raw materials and learn new methods and techniques from the other groups living in the region. In their journeys they kept along the coast, reaching Boeotia and the eastern Peloponnese.

At a certain moment the situation changed abruptly. New people with more advanced techniques came from far away and settled in the existing villages in Attica or built their own. This was the start of the Middle Neolithic period. The encounter between the different groups was peaceful and without clashes, because the earlier inhabitants immediately accepted the improved methods

used by the newcomers, learned from them and turned them to their own use.

They started to build solid houses with walls reinforced by a wooden framework, at the same time building their old style huts with branches beside them. They now learned to keep food and other perishables in ventilated storerooms, and they had their cooking places outdoors, as country people do nowadays, to keep the houses free of smoke. Life was made easier in the villages by paving the streets with stones and digging wells for water.

Their ordinary clay vessels now became more standard and they found ways of making fine wares with an elegant appearance. Many were dark burnished, but had white designs made by filling the incised lines with a special clay, and they made more sumptuous all-white pots from argillaceous kaolin brought by sailors from distant Melos.

As the years passed the people of Attica continually found ways to improve their daily life. They were still good and skillful seamen making frequent voyages across the sea, and in the right season they sailed as far as Melos to obtain and trade in the precious obsidian. No striking new discoveries emerged in the Late Neolithic period, but people kept abreast of developments elsewhere and were in continuous contact with the settlements around them, especially in Boeotia and the Peloponnese. They knew of and tried out the innovations of the time, but it is significant that they ignored or abandoned whatever did not suit them. In the large settlement at Nea Makri the potters decorated their pots only with incised patterns and after initial experimentation

rejected the common and easier technique of painted decoration.

There must have been substantial development in the villages and the countryside was already familiar to people. Now in the Late Neolithic the settlements became more frequent and new ones sprang up in the hinterland close to the natural routes. Among these should be mentioned in particular the settlement on the slopes of the Acropolis at Athens, on a site that was destined to attract inhabitants and to hold them without a break from that period until today.

In this same period we find the Attic world starting to use certain caves as additional living places. Habitation in the villages did not become sparser, but groups occupied in their own special or seasonal pursuits preferred to live in cave quarters. Shepherds and farmers moved into them for as long as was necessary, but always kept in contact with their settlements.

The most important event during the Late Neolithic period in the Aegean was undoubtedly the colonisation of the Cyclades. We know that for thousands of years from different points sailors had been transporting and trading in Melian obsidian, but in the beginning no one cared to settle in the Aegean. The first settlements on many of the islands were established at this time, in the Late Neolithic.

There have been many theories about the provenance and original homelands of the Cycladic folk. Actual clues, however, with tangible evidence we have only from Attica up to now, and that must have been the most important achievement of the Nea Makri seamen. A few traders, it seems, who were familiar with the sea after

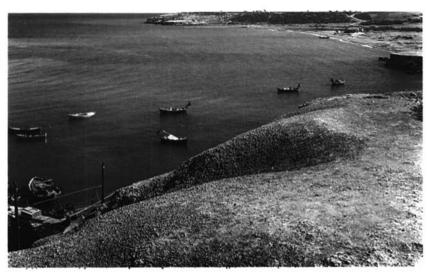
transporting obsidian and kaolin to their home base, decided at some point to settle on the islands. For a long time they would have taken note of places they had come to know from their stops during the long voyages.

When the time was ripe, then, and they felt sufficiently confident, they made up their minds, along with numbers of others from different localities who had the same purpose, to stay permanently on the islands and from their new homes to continue their profitable maritime trading.

The end of the Late Neolithic came with the first appearance of copper in the markets of the Aegean. Utensils, weapons and tools could all be made with the new material, cast in whatever shape and size the coppersmiths chose, and in addition it was strong and resistant. Everyone wanted to acquire this new material, but very few were able to. In the beginning the metal was very expensive and its processing from the smelting to the fashioning of the object called for specialised knowledge. For a long time stone and clay remained the principal materials in the Subneolithic or Final Neolithic period. The new consumer preferences were first catered for by potters attempting to give their pots the shapes and colour of metal. This is considered to be a transitional period, but the activities of the denizens of Attica increased. Movement within the region intensified, many groups started new settlements both along the coast and inland, and they communicated with each other by land and sea.

The relocations and broader regroupings brought about a reversal in the direction of cultural flow. The inhabitants of Attica stayed where they were, but it was now their turn to receive the powerful influences of the populations of the Aegean. The hardy and progressive seamen of Attica and other localities had brought life to the islands and given rise to communities that in the end acquired their own identity, character and vigorous, independent life.

These considerable achievements and immense steps were accomplish by the inhabitants of Attica, who had organised their life in the settlements along the lines of a simple farming economy. Obliged to depend entirely on nature, they coped with it efficiently, in ways and by protective measures which they periodically improved. The people in that age were simple, efficient, tireless, skillful, ingenious and courageous. They worked hard and laboriously, were able to in travel freely on land and sea, and succeeded generally in progressing beyond mere survival and coping with basic needs. In a word, life in Neolithic Attica did not differ essentially from the form of society of certain peoples of the present day who remain close to nature and remote from the advances and services of modern technical means.



91. Bay of Rafina, one of the many natural harbours in Attica (photo 1952).

#### SITES OF NEOLITHIC FINDS IN ATTICA

Anavyssos - Megalo Lithari

Neolithic pottery.

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Goulandris 1996, 205.

# Athens - Acropolis - South Slope

- 1) Remains of a house floor.
- 2) Four storage pits.
- 3) LN pottery.
- 4) Probable use of caves above the Asklepieion in the FN.

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# Athens - Acropolis - West and North Slopes

- 1) Twenty-one FN wells.
- 2) Scattered and stratified FN pottery.
- 3) MN female figurine.

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Immerwahr 1971, 1-50. Pantelidou 1975, 36, 38. Broneer O., Hesperia 8, 1939, 405-406, fig. 88 (figurine).

# Athens - Agora

- 1) FN pottery in the area of the Eleusineion and in rock hollows on the NW corner of the site.
- 2) FN shaft grave.
- 3) MN female figurine in the area of the Eleusionion.

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# Athens - Olympieion

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# Brauron - Acropolis

MN and LN pottery from the west slope of the hill, exhibited in the local museum.

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# Choni Liagi Cave (Merenta Markopoulou)

Neolithic pottery.

Bibliography

AD 37, 1982, Chronika, 413.

#### Eleusis

1) Two sites with Neolithic finds.

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Mylonas G., Harvard Studies, Suppl. 1940, 11-12, Part II, Chap. I. D XXIV.

2) MN type of female marble figurine of unknown provenance.

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# Filothei (College hill)

Two surface surveys. LN tools, weapons and pottery.

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#### Kato Souli

LN pottery, probably FN.

Bibliography

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## Kavouri (odos Kentauron-Iliou-Selinis)

Hill on the seashore with remains of walls and pottery, apparently FN.

Bibliography

Kasimi-Soutou M., AD 39, 1984, Chronika, 36.

# Kazarma (2 km west of Rafina)

Mentioned as a Neolithic settlement site with pottery like that of Nea Makri, apparently MN.

Bibliography

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#### Kiafa Thiti

Thick layer of fill and wall 0.90 m wide.

Bibliography

Rozaki St., AD 37, 1982, Chronika, 60-61. Dousougli 1992, 227.

#### Kitsos Cave - Lavrion

Excavation of the cave with various LN and FN finds.

Bibliography

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## Lagonisi

Neolithic pottery.

Bibliography Goulandris 1996, 205.

#### Loutsa

Remains of a building and FN pottery 500 m from the sea. Rescue excavation by K. Eustratiou 1995-96.

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## Nea Makri (odos Maurikou)

1) Excavation of part of a settlement from EN to FN.

Bibliography

Pantelidou Gofa 1991. Pantelidou Gofa 1995.

2) Earlier excavation of trenches in the same locality.

Bibliography

Theocharis 1956, 1-29.

# Oropos - Amphiareion

Probable Neolithic site. Old finds of Leonardos: two stone celts and obsidian.

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Palaia Kokkinia (by odos Thessalonikis)

Remains of a FN settlement.

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## Pan Cave (Oinoe, Marathon)

Excavation of the cave with various finds. LN and FN pottery.

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Patissia (exact site unknown)

MN Female marble figurine.

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Plasi (archaeological site)

LN pottery.

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Pousi Kaloyeri, site 1 (2.5 km NE of the Sanctuary of Artemis Brauronos)

Settlement site with walls and EN and MN pottery. Excavation of a trench by Theocharis and collection of surface finds by two groups: finds in the Brauron Museum and the Brisish School of Archaeology. *Bibliography* 

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Pousi Kaloyeri, site 2

MN and LN buildings with various finds on the side of a low hill. Excavation by K. Eustratiou 1994-95.

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#### Rhamnous

1) Fortress, site of the Gymnasium: layer with FN pottery.

Bibliography

Petrakos B., IIAE 1981, 131.

2) East of the Gymnasium: EN bowl (old find).

3) Cistern site (east of temple of Nemesis): walls, floor, pottery and other MN finds.

Bibliography

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4) Below temple of Nemesis: MN pottery.

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# Rizoupolis Cave

Excavation by the Speliological Society with FN pottery.

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Spata - Tsoumba Sideri

FN surface pottery.

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#### NOTES

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- Extensive description of the environment in Philippson 1952, 784 f. Travlos 1993, 5-18.
- See the description of the downpour in 1861 in Kambouroglou 1985, 75-77.
- 4. Mariolopoulos 1938, 340-359. Demoule Perlès 1993, 359.
- 5. Mavrommatis 1981. Sarpaki 1992, 70, 75-76.
- 6. Hansen 1988, 44. Renfrew 1973, 147 f.
- 7. Thucydides I, 2, 5. Strabo VIII, 1, 2.
- 8. Tsountas 1908, 360-366.
- Milojčić 1959, 5-7. Theocharis 1967, 69-70. For a different view of the evidence as well as conclusions, Bloedow 1991.
- Coleman 1992, I, 250 f., with the relevant bibliography. Demoule & Perlès 1993, 366, fig. 2, synthetic table of chronologies.
- 11. Warren & Hankey 1989, 6-13, 119-121.
- 12. Coleman's chronology is followed here.
- 13. Perlès 1981, 194-196.
- Milojčić et al. 1962. Theocharis 1958, 70-86. Theocharis 1963, 40-43.
   Vitelli 1993, 39. Wijnen 1981, 11.
- 15. Milojčić 1960, 330, figs. 3-4.
- 16. Weinberg 1970, 575-576.
- 17. Cf. Alram-Stern1996, 193-195, with the relevant bibliography.
- 18. Cf. Weinberg. 1970, loc. cit.
- 19. Pantelidou Gofa 1991, 178-179. Similar pits are used for storage today in the Middle East: Aurenche 1981, 257 f.
- See especially the publications of the German excavations in Thessaly in the series BAM. Also Vitelli 1993. Pantelidou Gofa 1995.
- 21. Hodges 1970, 59-60.
- 22. Hodges 1976, 35-41.
- 23. Shepard 1954, 216-222.
- 24. Weinberg 1970, 583-584. Pantelidou Gofa 1995, 32-33.
- Earlier names: Variegated, Mottled, etc.The Rainbow ware occurs especially at Halai in Lokris: Coleman 1992a, 273. Alram-Stern1996, 307, and at Nea Makri: Pantelidou Gofa 1995, 33.

- 26. Theocharis 1973, 40. Phelps 1975, 100-109.
- 27. And see Alram-Stern 1966, 118 f.
- 28. Pantelidou Gofa 1995, 31-34, 37-40, 133-137.
- 29. Petrakos 1977, Petrakos 1986, 1-2.
- Patissia; Weinberg 1951, 122-124, pl. 1c. Agora: Immerwahr 1971,
   48, pl 14, no. 219. Levi 1989, figs. 7 and 8.
- 31. Pantelidou Gofa 1991, 16 f.
- 32. Op. cit., 3, note 5. And cf. Theocharis 1956, 3.
- 33. For the construction methods in all periods see Pantelidou Gofa 1991, 159-166. We know that foundations existed in Attica from the end of the Middle Neolithic.
- 34. Op. cit., 162-164.
- 35. See collected evidence op. cit., 166-171.
- 36. From the extensive bibliography, see especially Hatzimichali 1957, 157 f., Kouremenos 1984, 14-23, Kavvadias 1991, 64-76.
- 37. See Pantelidou Gofa 1991, 176-178.
- Garstang 1953, 47-50, fig. 27, pls. IIIb, V-VI. At Saliagos carbonised grains of wheat were found in situ: Evans & Renfrew 1968, 17-18, 81, pl. VII.
- 39. For storage pits in the Aegean area, see Treuil 1983, 325-326.
- The same thing happens today among the Sarakatsanis: see Hatzimichali 1957, 274.f.
- 41. Modern popular constructions are still found in our villages. For the fire in the establishments of the Sarakatsanis, see Hatzimichali 1957, 274 f.
- This was to be seen at Nea Makri. For a similar comment, Ridley & Wardle 1979, 197.
- 43. Pantelidou Gofa 1991, 171-172.
- 44. See generally Pantelidou Gofa 1995, 137-151.
- 45. See in particular Weinberg 1962, 176-179. Phelps 1975, 118 f.
- 46. Phelps 1975, 181-182. Vitelli 1993, 209-210.
- Vitelli 1993, 189-197, explains the method of decoration and distinguishes decorative types.
- 48. Pantelidou Gofa 1995, 47.
- Op. cit., 48. The very white ware at Franchthi was found not to be of kaolin: Vitelli 1993, 132-133.
- 50. For the technique, see Pantelidou Gofa 1995, 27-30.
- For the carefully calculated design in the painted decoration of the pottery from Franchthi, see Vitelli 1993, 192-195.

- Cf. the findings for the rest of the Greek mainland, Demoule & Perlès 1993, 388-389, and 396.
- 53. See generally Pantelidou 1975, 23 f. and 210-213.
- 54. Levi 1930-31, 411-450, 472-491. In the fill sherds of the Thessalian Middle Neolithic style were also found, especially op. cit., figs. 30: o-q and 35; also cf. Levi 1989, 10-12. However the greater part of the pottery is today assigned to the Late and Subneolithic. Travlos 1971, 52, fig. 67.
- 55. See the bibliography in the list of sites.
- 56. Pantelidou Gofa 1991, 133-136.
- 57. Op. cit., 120-132.
- 58. Pantelidou Gofa 1995, 178-179.
- In Attica this class is chiefly known from the Pan Cave: Petrakos 1995, 120, and Kitsos: Lambert 1981, 299.
- 60. See the table of decorative themes of the Thessalian pottery: Theocharis 1973, pls. XV, XVII. For the Matt Painted see the colour plate in Touchais et al. 1981, 103, pot no. 353, and cf. with other lustrous pieces, especially the sherds 344.
- 61. For typical shapes, see Sampson 1981, figs. 84, 85.
- 62. See designs in Pantelidou Gofa 1995, figs. 71-73.
- 63. Op. cit., 101-102, 179.
- 64. Wickens 1986, vol. 2, 308-312. Goulandris 1996, 268, pot no. 127.
- Immerwahr 1971, 3 and notes 15, 53. Pantelidou 1975, 29, with bibliography. Wickens 1986, vol. 2, 324-328.
- Orlandos 1958, 15-22. Travlos 1988, 218. Petrakos 1995, 86-91.
   Wickens 1986, vol. 2. 223-233.
- 67. Lambert 1981. Wickens 1986, vol. 2, 4-15.
- 68. Wickens 1986, vol. 1, 119-132.
- 69. Today the river bed lies further west.
- 70. Immerwahr 1971, 1 f., with the bibliography.
- 71. See the bibliography in the list of sites.
- 72. Pantelidou Gofa 1991, 136-141, 144-152.
- 73. Op. cit., 144, fig. 141.
- An increase in the number of settlements is also noted by Demoule & Perlès 1993, , 339.
- 75. Marinatos 1970, 5-9, and 1971.
- 76. Dousougli 1992, 271. Alram-Stern 1966, 216.
- 77. My thanks to the archaeologists of the 2nd Ephorate of Attica, who

invited me to visit their excavations and allowed me to mention their unpublished finds.

- 78. For the site generally, see Travlos 1988, 430 f.
- 79. Mussche et al. 1990, 115-122.
- 80. Spitaels 1982, 9 f.
- Alram-Stern 1966, 146-149, 157-161, 449 f., with relevant bibliography.
- 82. Immerwahr 1971, 11. Pantelidou Gofa 1995, 155-156.
- Various shapes of handles and motifs from Kea in Coleman 1977, pls. 84-85, 89.
- 84. Gallis 1996, 171-174. Papathanassopoulos 1996.
- 85. Petrakos 1995, 88. Immerwahr 1982. And see Immerwahr 1971, 2 and 52-53. Diamant, 1985, 304-305, adds one more on the south slope, which was excavated by Skias in 1902. For the graves at Vrana there is op. cit. only a simple mention.
- 86. Duday & Lambert 1981.
- 87. Cf. Gallis 1996, 171-174. Alram-Stern 1966, 112-115, with the relevant bibliography.
- 88. For a more extensive analysis and bibliography, see Alram-Stern 1996, 162-166. Marangou 1996. For the figurines of Attica, see Marangou 1992, 41-44.
- 89. Perlès 1981. Demoule & Perlès 1993, 383.
- 90. Treuil et al. 1989, 151 f.
- 91. Moundrea-Agrafioti & Gnardellis 1994.
- 92. Renfrew 1973, 149-153. Moundrea-Agrafioti 1996, 104-105.
- Moundrea-Agrafioti 1996, 103-104. For their shapes, working and function in the Stone Age generally, see Piel-Desruisseaux 1990.
- Large quantities were found in all levels at Nea Makri and at Pousi Kaloyeri in 1994.
- 95. Stratouli 1993.
- 96. Pantelidou Gofa 1991a.
- 97. Renfrew 1973. Hopf 1988. Alram-Stern 1966, 183-186, with the relevant bibliography.
- 98. Renfrew et al. 1968, 119-121. Wheeler & Jones 1989, 36, 160.
- Hansen 1988, 44. Sarpaki 1992, especially 70. For the products of Euboia, see Mangafa 1993.
- 100. Chevallier 1981. Trantalidou 1996, 101.
- 101. Marangou 1991.

- 102. Perlès 1990, especially 17-23.
- 103. And see the sailing instructions in the Mediterranean Pilot 1968, 7-8, 11, 91-92.
- 104. Pantelidou Gofas 1996. For the finds from Andros, see Koutsoukou 1993, 99-102.
- 105. For an examination of the subject, see Basch 1987, 76-89.
- 106. See the relative calculations in Perlès 1990, 19-22.
- 107. Similar comments in Korfmann 1988, 13. Barber 1987, 16-18, etc.
- 108. Pantelidou Gofas 1996.
- 109. Evans & Renfrew 1968, 81-84. And cf. the recent confirmation in Demoule & Perlès 1993, 388.
- 110. Similar contemporary pottery is also found on other Aegean islands, but they so far are limited in number, Pantelidou Gofa 1995, 152-155, with the relevant bibliography. And see Sotirakopoulou 1996, 582-583. Davis 1992, 702-704. In the comparisons, the black must not be confused with the brown or the brown-black.
- 111. Evans & Renfrew 1968, 17-18, 81, fig. 7, pl. VII.
- 112. See above, Early Neolithic and fig. 9.
- 113. Pantelidou Gofas 1995, loc. cit. and 176-178.
- 114. Pantelidou Gofas 1996, 12-13.

# **ABBREVIATIONS**

AA	Archäologischer Anzeiger
AAA	Άρχαιολογικὰ ἀνάλεκτα έξ ἀθηνῶν
AD	Άρχαιολογικὸν Δελτίον
AE	Άρχαιολογική Έφημερὶς
AJA	American Journal of Archaeology
AM	Mitteilungen des Deutschen Archäologischen Instituts.
	Athenische Abteilung
Arch. Rep.	Archaeological Reports for
ASAtene	Annuario della Scuola Archeologica di Atene e delle
	Missioni italiane in Oriente
BAM	Beiträge zur Ur- und Frühgeschichtlichen Archäologie
	des Mittelmeer-Kulturraumes
BAR	British Archaeological Reports. International Series
<b>BCH</b>	Bulletin de correspondance hellénique
BSA	Annual of the British School at Athens
CAH <sup>3</sup>	Cambridge Ancient History, Third Edition
Ergon	Τὸ "Εργον τῆς 'Αρχαιολογικῆς Έταιρείας κατὰ τὸ ἔτος
Hesperia	Hesperia. Journal of the American School of Classical
	Studies at Athens
JFA	Journal of Field Archaeology

Praktika Πρακτικά τῆς ἐν ᾿Αθήναις ᾿Αρχαιολογικῆς Ἑταιρείας

EN	Early Neolithic Period
MN	Middle Neolithic Period
LN	Late Neolithic Period
FN	Final Neolithic or Subneolithic Period
EH	Early Helladic Period
MH	Middle Helladic Period

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# THE ARCHAEOLOGICAL SOCIETY AT ATHENS

When the Greek state was founded in 1830, after the War of Independence, the first governments were immediately faced with the great problems of the economy, public administration and education. The last of these also included the question of the country's ancient treasures, which had been looted and destroyed over the centuries by traffickers in antiquities. However, the official Antiquities Service was undermanned and incapable of taking proper care of the ancient remains, and so on 6th January 1837, on the initiative of a wealthy merchant named Konstantinos Belios, a group of scholars and politicians founded *The Archaeological Society at Athens* with the object of locating, re-erecting and restoring the antiquities of Greece.

The Presidents and Secretaries of the Society in its early days were politicians and diplomats, whose enthusiasm was such that in spite of the shortage of funds -for it was financed entirely by members' subscriptions and voluntary donations and received no assistance whatever from the State- they were able to carry out a number of ambitious projects such as the excavations of the Acropolis, the restoration of the Parthenon and the excavations of the Theatre of Dionysos, the Odeion of Herodes Atticus and the Tower of the Winds, all in Athens.

Until 1859 the Society was in such a precarious financial position that it was constantly on the verge of collapse. In that year the distinguished scholar and epigraphist Stephanos Kumanudes became its Secretary, and he held the position until 1894. With his expertise, his methodical mind and his energy he breathed new life into the Society, and on his initiative large-scale excavations were carried out in Athens

(Kerameikos, Acropolis, Hadrian's Library, Stoa of Attalos, Theatre of Dionysos, Roman Agora), elsewhere in Attica (Rhamnous, Thorikos, Marathon, Eleusis, Amphiaraeion, Piraeus), and in Boeotia (Chaironeia, Tanagra, Thespiai), the Peloponnese (Mycenae, Epidauros, Lakonia) and the Cyclades. Meanwhile the Society founded several large museums in Athens, which were later amalgamated to form the National Archaeological Museum.

Kumanudes was succeeded by Panayiotis Kavvadias, the General Inspector of Antiquities (1895-1909, 1912-1920), who carried on his predecessor's work with undiminished energy and presided over excavations in other parts of Greece –Thessaly, Epiros, Macedonia and the islands (Euboea, Corfu, Kefallinia, Lesbos, Samos and the Cyclades)– as well as the opening of numerous museums in provincial towns. Kavvadias was succeeded by three university professors, Georgios Oikonomos (1924-1951), Anastasios Orlandos (1951-1979) and Georgios Mylonas (1979-1988). Under them the Society managed to keep up its archaeological activities in spite of the difficulties caused by the Second World War and its aftermath, which hampered its work for a considerable length of time.

As an independent learned society, the Archaeological Society is in a position to assist the State in its work of protecting, improving and studying Greek antiquities. Whenever necessary, it undertakes the management and execution of large projects: this has happened with the excavations in Macedonia and Thrace in recent years and with large-scale restoration projects in the past.

An important part of the Society's work is its publishing. It brings out three annual titles: *Praktika tes Archaiologikes Hetairias* (*Proceedings of the Archaeological Society*) (since

1837) containing detailed reports on the excavations and researches carried out in all parts of Greece; the *Archaiologike Ephemeris* (since 1837) containing papers on subjects to do with Greek antiquities, including excavation reports; and *Ergon tes Archaiologikes Hetairias* (*The Work of the Archaeological Society*) (since 1954), published every May, with brief reports on its excavations. *Mentor* is a quarterly whose contents consist mainly of short articles on ancient Greece and the history of Greek archaeology, as well as news of the Society's activities. All these are edited by the Secretary General.

Besides the periodicals, there is the series of books with the general title *The Archaeological Society at Athens Li*brary: these are monographs on archaeological subjects and reports on excavations, mostly those carried out by the Society.

The Society is administered by an eleven-member Board, elected every three years by the members at a General Meeting. Every year, in May or thereabouts, the Secretary General of the Board reports on the Society's activities over the past twelve months at a Public Meeting.

# THE BOOK NEOLITHIC ATTICA BY MARIA PANTELIDOU GOFAS NO. 195 OF THE LIBRARY OF THE ARCHAEOLOGICAL SOCIETY AT ATHENS NO. 13 IN THE SERIES ANCIENT SITES AND MUSEUMS IN GREECE WAS PRINTED IN 3000 BY THE LITHOGRAPHERS "EPIKOINONIA"

The first inhabitants appeared in Attica at the beginning of the Neolithic period in around 6000 BC.

They immediately started to build settlements, cultivate the land and use their technical skills to cope with their daily needs and improve their lives.

The traces they have left behind them on the ground and their broken utensils guide us in their footsteps and tell us of their "history".

The evidence is presented chronologically, studied according to periods and related to the place and the environment. The finds themselves reveal the occupations, capabilities and character of the people, as well as their technical achievements and relations with the outside world, and lastly the sway the inhabitants of Neolithic Attica exercised over the Aegean at large.