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HANS WALTER

THE PEOPLE OF ANCIENT AEGINA

3000-1000 BC

ATHENS 2001

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19 ANCIENT SITES AND MUSEUMS IN GREECE 19

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Fig. 1 Map of the island of Aegina. 84 km^2.

One cannot study prehistoric people
without thinking of the person
who is today and tomorrow as well
(Teilhard de Chardin)

The island of Aegina lies in the Saronic Gulf. A triangle swimming in the deep blue sea (Fig. 1). To the north and in the south-east, where it faces the open sea, its coasts are forbidding. The eponymous Aeacus is said to have hewn cliffs into the coasts to protect the islands from pirates. And in the north a strong north wind is troublesome. On the west side, where land and sea blend, lies the modern city of Aegina, built on the foundations of ancient houses. The city looks out over the sea and the nearby coasts of the Peloponnese. The city's alleys run down to the seafront promenade where the harbour is the setting for the everyday drama of daily living. Aegina's history does not begin here, however, but on a nearby large, flat rocky promontory covering about 6.400 m^2. Jutting into the sea, its spur divides the back and foreshore zone into a bay on the north side which cuts deep into the land (Fig. 2) and, towards the south a plain which extends all the way to the southern tip of the island. To the east of the hill a low, semicircular slope surrounds a depression where the theatre will be situated in later times. But then the terrain rises steeply to the peak of Oros, the mountain sacred to Zeus.

Fig. 2 Cape Kolonna and the sea with the island of Moni and the Peloponnese. Northern bay. From the north.

People call the hill 'Kolonna' because a temple column stands upright on it (Fig. 3). Apollo had his sanctuary here and the hill was the acropolis of the city of Aegina. At the close of the second millennium, towards 1050 BC, there was a cult site here with a small building, a spring and probably an altar where a congregation gathered to offer sacrifice and to pray. Over the course of centuries the small cult site grew into a large sanctuary. During the sixth and early fifth centuries BC, when Aegina was prosperous and powerful and challenged Athens for supremacy over the Saronic Gulf, the inhabitants of Aegina erected a Doric temple to Apollo in about 520 BC. Built on a lofty substructure, it was visible from afar. Only a few years afterwards, the people of Aegina built a temple to the goddess Aphaia on wooded elevation in the interior. Sculptors in bronze, including Smilis, Kalon, Onatas, Glaukias and Anaxagoras con-

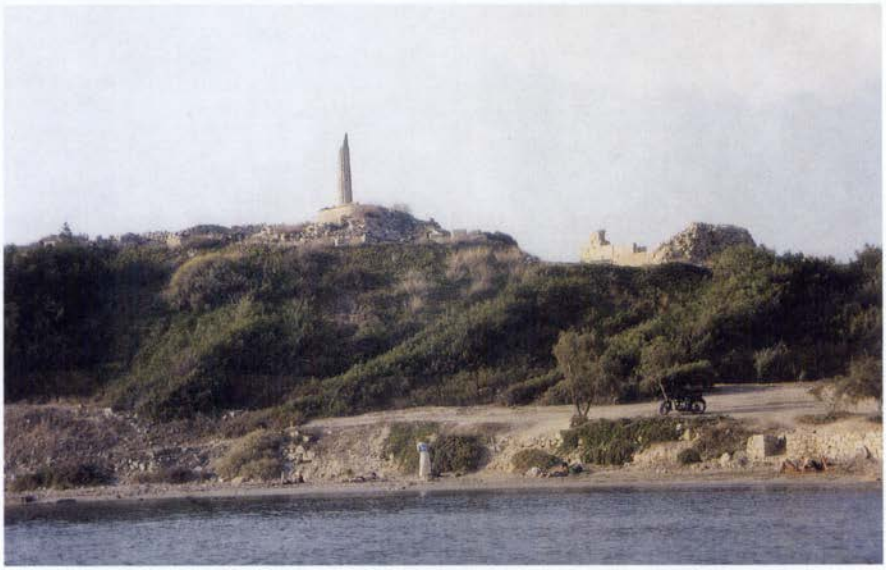


Fig. 3 The hill with the column of the Apollo Temple, the shore and the sea from the south.

tributed with their work to spreading Aegina's fame throughout the Greek-speaking world. The solitary column still stands, looking unreal yet attesting to what was once a glorious sanctuary and is now a landmark of an ancient world that is no more. When, after both the island and the sanctuary had passed through a turbulent history and the cult of Apollo became extinct at the close of the fourth century AD, people came and built houses and a church under the sign of the Cross on Kolonna. By about 900 AD, the promontory was a deserted place. The ruins were covered over by vegetation. The wind carried soil to the hill and a layer of arable topsoil built up.

This small book does not present the sanctuary of Apollo with its buildings and cult rites. Instead it tells the story of the people and their villages situated below the sanctuary. The earliest village was founded five millennia ago on Kolonna. This

Fig. 4 The hill with the ruins of the villages. The Apollo Temple. Aerial photo 1974. From the west.

book deals with the pots, the household goods, the utensils, ovens for baking, pottery kilns and copper smelters, the way houses were built, where the streets ran and the village wall as

Fig. 5 The hill with the ruins of the villages and the Apollo Temple. Aerial photo 1974. From the north-west.

things that bear witness to life as it was once lived here. It reads at the great walls which protectively surrounded the village, where two gates opened and closed, village life quickened and marauding incursions from outside threatened. These walls are not mute nor are they forbidding. Like documents, they record, only differently and without writing. Times and destinies have carved traces in the sides of these walls; it is the stones and their discoloration, the cracks in the masonry, the patched places where the walls have been wounded from stones falling out when the clay mortar loosened or they had to give way to the wrath of a battering ram; the additions of new walls when the old ones were no longer strong enough.

Kolonna is a rocky elevation. Steep slopes lead up it (Fig. 4); the ascent is even steeper on the north side. And on top a thicket of mudbrick, rubble and limestone masonry (Fig. 5); walls standing upright and broken walls, straight and curved walls, weak

and thick walls built with small stones and larger blocks; a tangle of ruined walls of varying shapes from different times and in between them narrow alleys. They attest to eleven villages of the third and second millennia BC.

When did the first inhabitants of Aegina come to the island and settle on the rocky hill? In the late Stone Age, towards 3000 BC, say broken jars. The people who arrived were perhaps still nomadic, always moving about without permanent dwellings, on their way to a fertile, safe spot of land where they might be able to build and live.

It was not the beauty of the scenery, the view out across the sea and the Peloponnese close by that induced them to stay on the rocky promontory. Why this place? There were down-to-earth reasons for staying here. The location was favourable: with its steep slopes it was easy to defend; to the north, the most vulnerable spot, it drops sheer to the shore and is also steep on the south. It cannot be climbed from the sea (Figs. 2;3). The bedrock afforded a firm foundation to receive protective walls. The hinterland was fertile. The hill itself had water in abundance: the shiny brown layers of clay between the horizontal strata of limestone blocks and conglomerate sedimentary rock are aquifers, veins which collect and purify rainwater that has pervaded them (Fig. 6). The gradient of the rock carries the water to the edges of the southern cliffs, where it could collect in hollows in the rocks on the southern edge or in stone basins. The newcomers could easily draw their boats up on the sandy beach of the southern bay, which is protected from the north wind, to keep them safe. All this the rocky hill afforded. And much more. From the hilltop they could survey the western part of the island and the sea routes. They were dependent on the riches of the sea, on seafaring and trade. And the sea turned them into skilful mariners and linked them with the world. There are numerous elevations round the island but

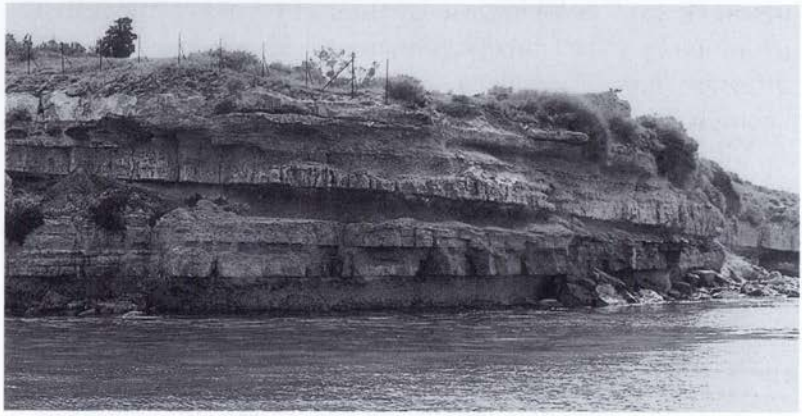


Fig. 6 The promontory from the west. Aerial photo 1974.

none with the advantages afforded by Kolonna Hill. Were they guided in their choice of site purely by practical considerations? A domestic animal, a cow perhaps, may have settled on the promontory and the people took this as a propitious sign for staying there. And so they stayed and settled permanently and built houses – the first deed with which they established their world. A village grew up. It was a decision for two millennia.

The hill at Kolonna resembles a natural fortress (Figs. 2;4). Ten to twelve metres above sea level, neither too lofty nor too low, it is just high enough to be suitable for all needs. The promontory does not lie unprotected in a coastal area: the northwest tip of the island juts a good bit further out into the sea, thus concealing the hill from the sight of anyone approaching from the north. Yet when the promontory does suddenly come into view, it looks menacing. From the Peloponnese it looks low and inconspicuous because its outlines are softened and blurred against a backdrop of hilly country. However, if one approaches the promontory more closely, the tip catches one

unaware, as if thrusting out of the hinterland. Originally the promontory jutted further out to sea than it does now. The incessant beat of waves against it undermined the tip and brought down blocks of stone from it (Fig. 6).

Villages from these centuries lie on the elevations above the sea. Some are on the river banks, others in the plain and still others in the interior of the island. Lefkandi on Euboea was built on a hill rising sheer out of the sea; the old city of Samos on a rocky ridge thirteen metres above sea level; the Heraion village, an hour's walk from the city, on the lower reaches of the River Imbrasos on the sea; the inhabitants of Hagia Irini on Keos settled on a flat peninsula in the gulf, three quarters of which is surrounded by ridges, rather like an inland sea with an approach to the sea; Lerna on the Peloponnese is in the plain of the River Amymone; Berbati is situated on a slope in the interior.

As different as all these sites are, they had three features in common: a location where people felt safe, fertile land around them and plenty of good water. All villages are similar yet each village has distinctive characteristics of its own and the people in them do not know what the morrow will bring: thus also the people on Kolonna.

The promontory is most vulnerable to attack on the east side where there is no steep slope and the hill runs gently into the hinterland (Fig. 7). There the village wall runs with its two main gates. Only mighty walls could keep the village safe. The thrust of this course of masonry, which grew in strength here with the years, is braced, as the nucleus of the village against the east, the land side. These are the great courses of masonry below the western foundation of the Apollo Temple (Fig. 148), which run straight across the hill and converge in a block. In reality, however, these are walls from different times. No topographical photograph reveals just a village, a village wall, a single house. Instead in every picture fortification walls, bastions, entrances, gateway roads and houses from the various villages

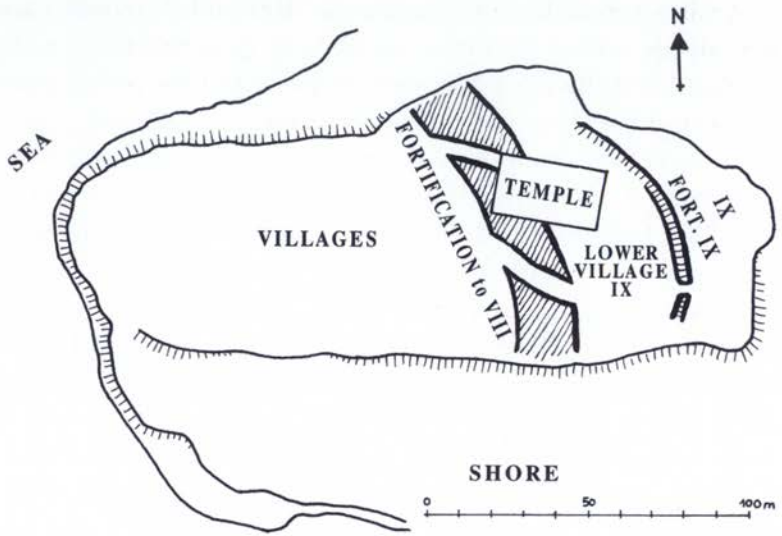


Fig. 7 The hill with a schematic representation of the villages.

and centuries are jumbled together. Plans, isometric projections and models can make the ruins easier to understand.

Ancient Aegina is not a settlement and its inhabitants are not settlers; and it certainly is not urban in character. It is a village and the people were villagers. The word village is associated with a close-knit community of people. Village as a living organism which is made up of people. At first there were the people and the houses and then there were the alleys. The situation of the houses determined the width and direction of the alleys, not the other way round. The alleys were narrow, scarcely one and a half metres wide. Animals did not dwell in the village. Their place was outside the gates to the east; there may have been an enclosure for them there.

A village grows from the inside out. Its builders moved each new village wall as far out as possible to gain room for more houses; that is the way it was elsewhere too. On the promontory this would also have been possible; there was enough room. They could have simply moved the wall further east (Fig. 7) – yet they didn't do this. The site had obviously proved its worth as it was. They built each new village on top of the old one and managed very well with the same space for hundreds of years. They did renew the fortification wall yet they did not give up the old site. They left the old walls standing and put up new ones behind and in front of the existing ones, added new bits and continued to build on earlier masonry. Rarely did they remove a course of masonry, unless it hindered the building of new walls. Even then, however, they removed no more stones than necessary. The masonry one is confronted with has evolved naturally and become tangled up in the process. Anyone who is familiar with the natural rocky terrain, the outcroppings and indentations, the elevations and depressions of the rock and its gradient understands why they built the walls to take their course for centuries in the same places but always following the contour of the rock.

The people built eleven villages, one above the other, in the course of two millennia. In about 1800 BC a Lower Village was annexed to Village VIII and thus Village IX (Figs. 7;106) came into being.

Before people settled they lived a nomadic existence, with no permanent place of residence, during the Lower Palaeolithic (Old Stone Age). Animals were their main source of sustenance and there was an overabundance of game. With a sure instinct, small groups of human beings followed the migrations of animals to their feeding places and places with a good climate. As far as the people on Kolonna are concerned, this question leads into the obscurity of time. Long before they arrived at Kolonna, the age of crop cultivation (6000-3000 BC) had begun, one of the great leaps forward in human history, when man began

to plant seedlings, cultivate grain and improve it for food, take animals from the wilds and domesticate them. When people settle, cultivate fields and raise domestic animals, the world changes for them. 'Reality is now the village, the house and the cultivated field' (M. Eliade). The rhythm of nature: the seasons, the waxing and waning of the moon, sowing and harvesting determine the farmer's way of life. He has to keep to a timetable which nature preordains. Anyone who takes care of domestic animals must anticipate events and ensure the fertility of herds; animals are not simply there for daily labour and to serve as food; they are also there to breed. Man who has settled cultivates fields and breeds animals and no longer lives off the endless bounty which nature in the raw provided in the Lower Palaeolithic. With housework women also took over new tasks in the fields.

When human beings decided to settle and abandon the nomadic way of life, they were more urgently aware of how all processes of life from birth to death and rebirth are tied into the regular cycle of waxing and waning in nature. In the Mysteries of Eleusis, whose roots reach far back into an even earlier time, the cult of the disappearance and return of Persephone, the daughter of Demeter, also celebrated the cycle of nature.

The village came into being concomitantly with crop cultivation. The family may have developed then as the smallest unit in the larger village community.

There are numerous links between people: place, language, way of life, the cultivation of fields, worries about daily needs; knowledge that, as creatures of nature, they depend for their lives on primal forces: the forces for good which promote growth and fertility and the forces for evil which prevent seed from sprouting. The place which binds most strongly, which unites them all, is the cult site. It is a simple place for offering sacrifice, with a basin to hold water and the necessary vessels and implements for cult observance. And one more thing: a

village is inconceivable without a *numen*, a pervasive power or spirit. Who could name this divine power, which is only felt, suspected, which eludes definition in terms or words! *Numen* is the divine afflatus which does not waft but instead is bound to a particular locus: a stone, a spring, a tree or a cleft in a rock. Receptive to the slightest movement of the spirit, early man experienced *numen* at such places. There people received strength and guidance. Every event, whether the building of a house or a wall, sowing seed or harvesting, everything that happens in the life of a person, birth and death included, began here and the wishes which accompanied one's fellow human beings were legion.

People founded a village and surrounded it with a protecting wall: this might be an earthwork, a ditch, a planted hedge, a perishable palisade, the work of a carpenter, or a wall of masonry and mudbrick. They had to protect themselves from incursions by marauding nomads and ensure their safety from roaming wild animals. Wall protecting threatened life! Protection did not just mean a compulsion to fence in a village. The broad country round about was limitless to early man and unfamiliar to him. In fencing off a piece of land from the land that surrounded it he had gained a permanent place. He could survey this piece of land: it became his village, his world which gave him his orientation. Outside the enclosure lies strange land. Fields were also ordered, even if only by the furrows of the plough which were drawn through the soil to segregate a piece of cultivated land from the uncultivated wilds because the field was part of the village.

However, above and beyond all need for protection: fencing in is the external sign that human beings have settled here. Enclosing also means taking possession of an area. A decisive turning-point in human history. At the same time it represents 'the first step towards the inequality of man' (J. J. Rousseau). Herein lies the root of the envy of the possessor felt by the dis-

possessed, of the settler by the nomad, envy which can lead to strife and battle and, as history shows, does indeed do so.

In early times building material remained the same. People built village walls and the foundations of houses of unquarried stone, volcanic rock and pebbles which they gathered in the fields and on the sea shore. Later they took to rubble masonry, unhewn stone, laid at random; walls were built up of sun-dried mudbrick. Dirt and clay mortar cemented stones and bricks. They added chopped straw to mudbrick and daub to make them more durable. Stone and mudbrick were still covered with a coat of daub to protect them from erosion and prevent rain washing clay or dirt mortar from the walls. However, daub is not impervious to water until walls are whitewashed. Under Southern light conditions a house or village wall is unthinkable without whitewashing or a coat of ochre. Perhaps with motifs on it.

Although no house has been left standing up to the roof, at least the stone foundation and often courses of mudbrick have been preserved. Moreover, the debris inside a demolished house furnish clues to its superstructure and the type of roof it had. Houses in Aegina were built for the greatest part with mudbricks. Only the lower part of the wall was of stone. If a house was flat-roofed, which they often were, beams were laid on the wall and sea-wrack grass or Zostera marina and branches were strewn over them. Stone slabs were laid on top and watered whenever the clay roof dried out too much or cracks had opened up.

People knew that each building material, whether natural stone, wood, clay or sea-wrack grass, had its own distinctive properties. They built houses of materials which were also healthful to live in. Therefore they preferred pounded clay flooring because it is impervious to damp and pleasant to walk on. Sun-dried mudbrick adapts well to changes in the weather. The open hearth was usually in the corner of a room. It was a small, rounded stone slab on which a wood fire burned for preparing food and providing warmth in the winter cold.

Smoke curled along the beams and left the house through the roof and openings in the walls.

A gate threshold or door threshold was at first an elongated, hewn stone set between two gate jambs or house walls (Figs. 8;68). The threshold stone is a border marker between outside and inside. Gates were low; people had to duck to pass through them. No gates were built through which people could walk upright or were higher than they were tall. One presumably did not pass a threshold without observing a ritual. A house threshold might stand for a house; a gate threshold indeed for an entire village. 'Stone threshold' was the des-

Fig. 9 Gate stone with two eyes for the pivoting gatepost. H 38 cm.

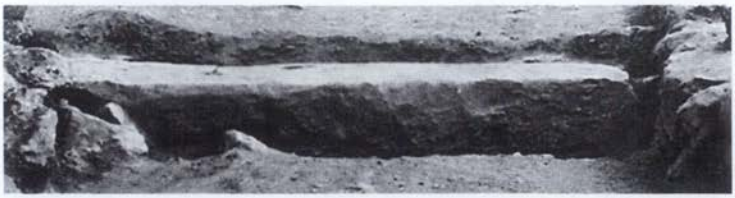


Fig. 8 Gate threshold (Fig. 68).

ignation for one of the earlier temples to Apollo at Delphi. The door post revolved with the door in a socket hollowed out of a hard stone. The two sockets in such a pivot stone are two eyes (Fig. 9), not fortuitously and not harmlessly. They are signs of magic powers: as such they are supposed to deter strangers and bar evil spirits from entering. How important the threshold was in matters of defence. Once the enemy stepped over the threshold the village was his.

In a village everything has its significance. When people made pots, tools and implements, they found the raw materials in veins of the earth, on fields, in forests and on the shore: clay, mud for daubing, wood, pebbles, bones. To make vessels, the potters of Aegina used the native aquiferous green clay which exuded condensation water in the walls and thus kept the con-

Fig. 10 Pebble tool: hammer butt of hard stone. H 12 cm.

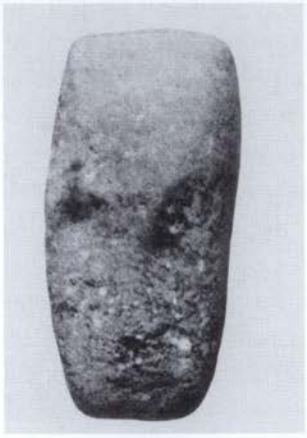


Fig. 11 Stone adze. H 15 cm.

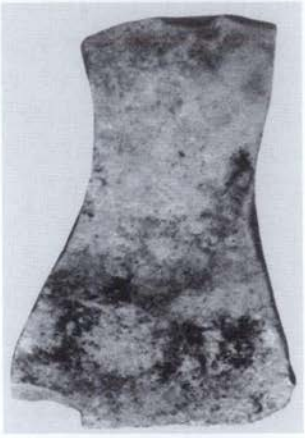


Fig. 12 Stone axe. H 23 cm.

tents cool even in the heat of summer. A heavy 'pebble tool' (handaxe with what might be termed a rudimentary hammer butt: Fig. 10) with two depressions for use as handholds was used for pounding stones into shape or ramming wooden posts into the ground. A stone wedge (Fig. 11) had multiple uses. An adze (Fig. 12) of soft limestone was suited for use as a cleaver to cut up meat and bones. Little rounded stone heads (Fig. 13) were bound to a wooden haft or stuck into a forked piece of wood with the ends of the wood tied together by thongs. Reels of various materials and colours with rounded tops may have been little hammers, with or without handles, or used in the process of spinning wool (Fig. 14). The people on Aegina imported gleaming black obsidian, volcanic glass, in its raw state from the island of Melos (Fig. 15). They struck sharp little knives of it, which they hafted with stone or wood.

From the earliest of times women had a device for spinning, one which has hardly changed with time: the spindle, a small wooden rod with a whorl stuck on the end. Made of clay or

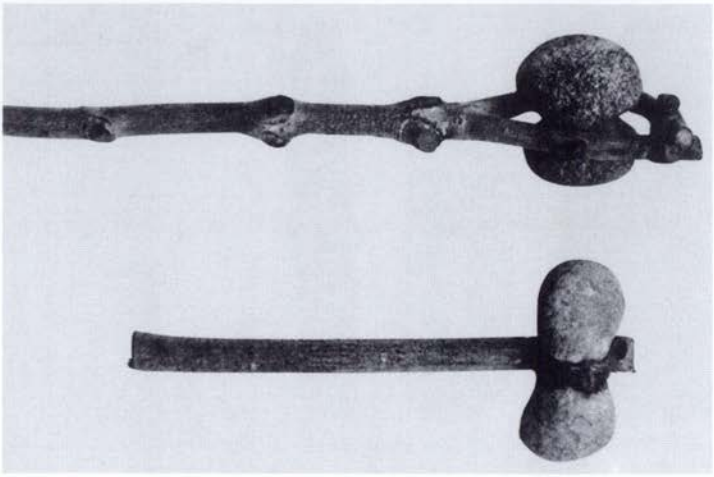


Fig. 13 Two stone hammers. H 6.5 cm and 8.5 cm.

Fig. 14 Stone loom weight, three clay spindle whorls, four coloured stone pestles. H approx 4 cm.

Fig. 15 Piece of obsidian and an obsidian knife.
Fig. 16 Bone tube and bone rod. H 5.8; 7.3 cm.

stone, some of these spindle whorls were attractively cone-shaped and bore incised designs (Fig. 14). From a bundle of wool which she held in her left hand a woman would draw fibres, bind them to the spindle and, turning the spindle like a top with a rapid movement, would spin yarn. When the yarn reached a certain length, she wound it round the spindle. Weaving, by contrast, entails a different process altogether. The warp, the vertical threads to be woven, was stretched on a frame and weights were hung on the ends of the threads to keep them taut. Weights came in different shapes. The simplest is a clay disc (Fig. 14). With a weaving needle of bone, wood or metal (Fig. 16), the woman at the loom threaded the horizontal cross-threads or weft through the vertical ones. Not all textiles were left in the natural colours of the yarns used: fabrics were dyed and patterns woven in which resembled those on pottery.

Fig. 17 Mortar. H 10 cm.

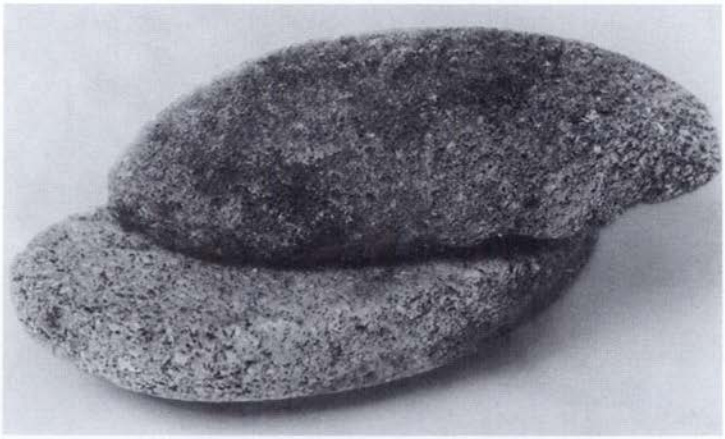


Fig. 18 Saddle quern for grinding grain. H 25 cm.

Fig. 19 Clay hooks for smoking meat. H approx 8 cm.

Pots were not the only utensils needed; there were all sorts of implements for household use. Women pounded grains and fruits in a mortar with a pestle (Fig. 17). The stone was round and the pestle had a groove at one end to make it easier to grasp. Grain for bread-making was ground by women between two elongated stones (Fig. 18), known as a saddle quern. The nether stone, which had a slightly concave upper surface, held the grain. With a hand-operated rubbing stone women ground

Fig. 20 Clay firedogs. L 15 cm.

grain into flour, which was caught on a cloth spread below the quern. A grey-blue or reddish brown stone, which geologists call andesite, (a porphyritic igneous rock formed by volcanic action) was suitable for making such querns and implements. Certain clay artefacts (Fig. 19) have been interpreted as idols, anchors or fish-hooks. However, they are none of these. Instead, they are simple 'kitchen' utensils used for suspending meat from ceiling beams so that it could be smoked above a wood fire.

Clay firedogs with a handhold on the back (Fig. 20) went with the potter's kiln. They are fire-blackened and fire also went through their hollowed-out interior. Firedogs are a potter's aid in the kiln. Small clay andirons were used when necessary to support cooking pots over the fire.

It is said of the people who used such clay and stone implements that they were primitive and their culture was a primitive culture. 'There are no primitive human beings; there are only primitive tools' (Le Corbusier). Nor are these implements primitive: they were simple but served their purpose. Moreover, their shapes are beautiful. The talk has been of tools. But is a stone picked up at random or a piece of wood a tool? Stone and wood were the raw materials but no tools as yet. 'A tool implies not only use but also manufacture' (Ernst Jünger). Not until a wooden haft has been bound to a stone has a tool been made (Fig. 13). The haft and the stone are reminiscent of the human arm with the hand clenched into a fist. Nevertheless, the haft and stone are not simply an extension of the human arm but are a tool which substitutes for the human arm and fist. Similarly, a vessel made by a potter supplements the hollow of one's hand and the shell, a natural device for drinking. Here, too, the age of craftsmanship has begun.

The ruins lie before us (Fig. 106): walls and towers, houses, gateways with stone gatepost sockets. The kilns in which vessels were fired and the smelters in which metal was smelted are still

there at the workplaces. Pots, tools and utensils stood on the floors of the houses or lay about broken in the fill when they were excavated. We go through the gates to walk on the narrow alleys and paths past the walls of the houses; the life for the sake of which all this once was is no longer. But, to anyone to whom nonetheless the grey stone from the fields, the black volcanic rock, the unhewn stone, the pebble smoothed by the waves of the sea, clay and earth are building materials, anyone who appreciates the masonry as something bonded, to him or her these simple building materials bear living witness to ancient craftsmen.

Deep down, seven metres below the foundation of the temple and ten metres above sea level, lies the earliest village of the closing Stone Age (Village I: early 3rd millennium BC, Figs. 21;22) on bedrock. Big rectangular houses were built then (Fig. 21). Timbers standing upright on stones supported the mud-brick walls and the flat roof. There were also types of houses which were oval or round in plan. A 'wattle-and-daub' house, built of wood and clay without stones or bricks (Fig. 22) stood on bedrock. What was perishable has vanished: the timbers, the clay and the daub but the holes in the bedrock and the stone socket for the door post attest to what type of house this was and to its size (Fig. 27). The rigid skeleton of the house was set in holes in the ground. It consisted of timbers which slanted towards each other and were bound together at the ends with supple willow wands and perhaps to a central post which stood upright on the ground as a contact with, or symbol of, the earth. The walls consisted of wattle or hurdle-work, interlaced twigs or thin split timbers into which daub, a thin layer of clay, was pressed, both inside and out, and perhaps then painted. Thin daub whitewashed with lime was the actual protective coating. The 'wattle-and-daub' house was carefully built, was simple yet more than a mere hut built as a temporary shelter. The Stone Age village is confined to the western part of the hill

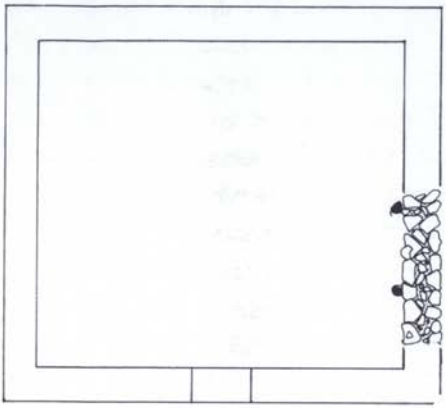


Fig. 21 House with 'uprights'. Village I, before 2500 BC. 6x7 m.

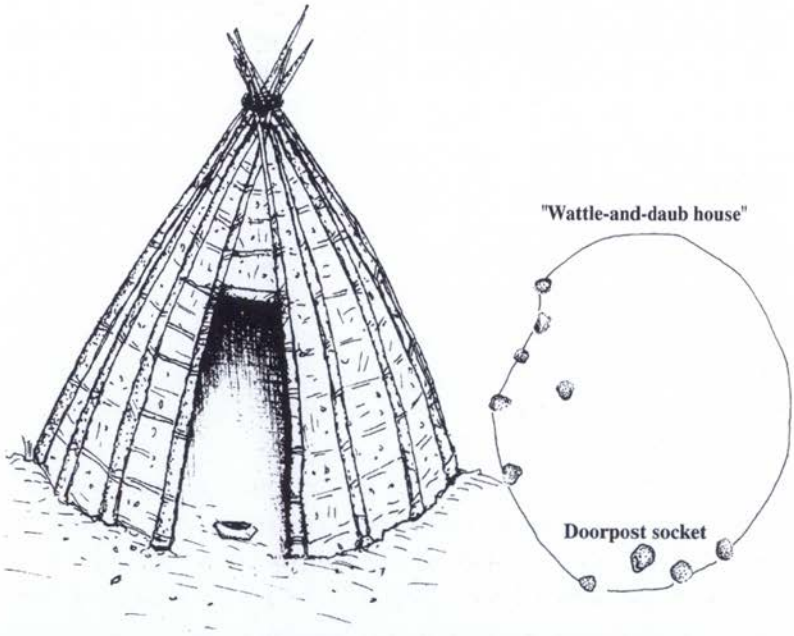


Fig. 22 'Wattle-and-daub house'. Village I. Reconstruction and ground-plan. Dm approx 4.50 m.

and does not extend to the east beyond the space enclosed by the later village wall (Fig. 7) although it did take up the width of the hill. The two houses (Figs. 21;22), like many others on the southern slope of the rock, have been preserved. Why here in particular? The reason is the slope of the escarpment, which extends further down to the south than in the north and has therefore escaped being built over.

The onset of field cultivation and domestic animal breeding, which gradually became widespread during the Late Stone Age (from about 6000 BC), marked the great change in man's nature and lifestyle. Vessels and the motifs on them are also informative on this. The types are deep basins and bowls and steep-walled mixing-bowls, pots which resemble gentle depressions, more like the hollow of one's hand or the hollow of a shell than anything made by a potter (Fig. 23). The handles are small and inconspicuous, often merely ridges in the clay. Bands, spirals, molluscs, cubes and groups of lines are distributed about the walls of these vessels in an explosion of colour which is best exemplified by the magnificent pottery from Thessaly (Fig. 23). The potters of that time did not like right angles. The narrow network of bands is not a meander. The meander is a geometric sign from the first millennium BC.

Late Neolithic pottery from Aegina, usually just found in sherds (Figs. 24;25) does, however, reveal recognisable shapes. Both wide-bellied and deep basins, bowls and steep-walled mixing-bowls, similar to the earlier ones from Thessaly, were popular. They were all built up by hand since the revolving potter's wheel did not yet exist. 'Formed by hand' means after the human body. Even where the potter created 'artistic' forms, his shaping hands did not eschew the earthy, physical quality of the object. But who wants to seek causes when a lump of clay has taken on shape? Style, use and treatment are one and the same. Even how a person will treat a vessel, how it will lie in his arm, how he pours something into it or a peasant woman pours

Fig. 23 Pots from Dimini (Thessaly). Volos Museum. H 10.5 cm. Late Stone Age. 4500–3200 BC.

milk into a pot, all this counts in the creation of shapes. And ultimately the process in the kiln, which intervenes drastically in the material: every pottery object in a kiln is subjected to firing, which does not depend on the potter's skill and his will. It is earthen material which is purified and transfigured on its way through the fire.

A vessel serves a purpose. Nevertheless, it is not there just to hold liquids or solids. The potter takes clay, kneads it and forces

Fig. 24 Late Stone Age clay pots. Early 3rd mill. BC. Watercolour, scale approx 1 : 1.5.

Fig. 25 Clay pots. Late Stone Age. Early 3rd mill. BC. Watercolour, scale approx 1 : 1.7.

it into shape, making an object from something amorphous. The human urge to create form is part of what can be read from pottery vessels.

Light and dark reds, yellows and browns, black and grey are the colours which are burnished with a little slip of bone or pebble into the vessel as glowing and dark stripes. Bunched, oblique lines and arcs are the most common patterns. The essence of the patterns is their discreteness: they are neither autonomous nor do they seek interrelationships. They live in the overall fabric. If such vessels are polished in a monochrome reddish brown, yellowish, or black, patterns aren't needed. But what do Neolithic patterns tell us anyway? First, they show in the potters' language that people belong together. The sensuous immediacy of such vessels has something incomprehensible about it. Consequently, it is easier to say what they are not: they are not aesthetic objects and the patterns are not symbols or decoration but reality. But what is reality in an age in which the unearthly is as real as the earthly, the mysterious as real as the manifest? Spiritual signs? Rather more likely images of the living. A vessel has a space (later conceptions of space must be automatically precluded here), comparable to that of a clay building and the human being in it. What surrounds him are the walls with the designs on them or a coat of coloured daub: these are natural phenomena, cosmic forces, which he experiences in all the power with which they manifest themselves. The patterns are the primal language of man with surrogate powers – but who can read them?

The female figures, regardless of their natural shapes (Fig. 26), are not ectypes of a female divinity, the Great Mother, as she is called. The more profound meaning of such idols is the equation of the female with fertility, which, like the fertility of the earth, was a divine primal force for early man. To him bringing forth life was a more lofty mystery than the generative force. The wish that fruits might thrive and animals breed was

Fig. 26 Female stone idol. H 10.6 cm. 3rd mill. BC.

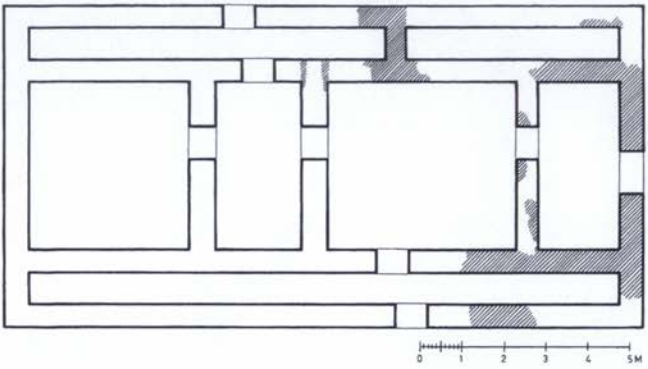
probably what moved man to bind the powers of growth into such figures. He did it by exaggerating the shape of their figures.

The Late Stone Age, the time of cultivation and animal breeding, is Hesiod's 'Golden Age'. Of it he says (Works and Days 111-120): 'Under Kronos, when he ruled the sky, they [mortals] were / Like gods, with carefree hearts / Far from pain and hardship. Nor did / terrible old age come over them, always the same in feet and hands / Happy were they in their apartments, far from all evils. / [...]. All good things / Were theirs; the fertile earth bore fruit / Unstinting in abundance and ungrudging. Willingly they / Lived, quiet in their work, with goodly cities. / Rich in flocks of sheep, beloved of the blessed gods.'

Flocks belong to a village: bones give evidence of sheep, goats, cattle, swine and other animals. These people hunted and fished and gathered shellfish from the sea, which from time immemorial had been a favourite food. At full moon they collected marine molluscs on the rocks in the sea; women roasted them over a fire. When the flesh of the molluscs was cooked, it was taken from the shell. What remained were the shells, scorched by the fire.

In the village that followed the first, Village II (2500-2400 BC, Fig. 27), elongated houses were built with sun-dried mud-brick walls above a stone plinth. Houses are now rectangular with a double shell of walls; they had an upper storey with a saddleback pitched roof and the roofing material was terra-cotta tiles.The rooms were arranged singly, one behind the other: a narrow vestibule, a main room with a domestic altar for offering sacrifice and one can add two rear rooms of differing size as well as long narrow passages along the full length of the long sides. The doors are baffle-entry: to block cross draughts, the inner doors are not aligned with the outer. The new house types anticipate the future.

The household pottery has assumed new shapes (Figs. 28-32). Jugs with beaked spouts and long-necked cups with everted lips emerge. These vessels have foot-rims and their handles can be grasped in the hand. The centre of gravity of this shape has been pushed upwards and the inward curve of the shoulders is pronounced. These are thin-walled vessels and they have been hard-fired; the slicker on them is so thin that the clay ground is exposed. Gone are the magnificent coloured patterns and the warm glow of the older jars. These potters have eschewed polished in patterns. Lines, cords and moulding have invaded certain places on the vessel. If masonry has changed and house walls join at an angle, jars cannot have the old shapes and patterns. The Bronze Age has set in. Hesiod calls this the Bronze or Brazen Age (Works and Days 144) and says: 'Zeus the Father



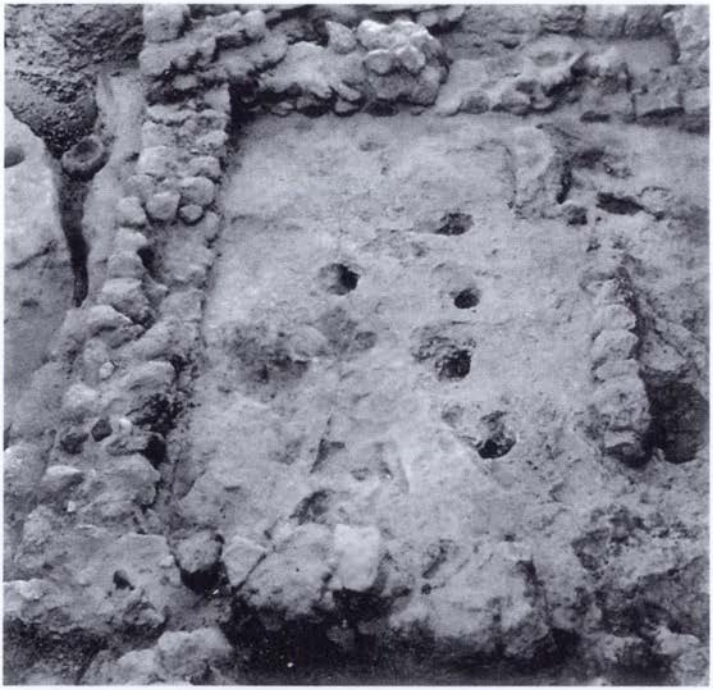


Fig. 27 'Rectangular house' with ground-plan. 7.50 x 15 m. Village II. 2500–2400 BC. Holes in the bedrock for the 'wattle-and-daub house' (Fig. 22).

Fig. 28 Jug. H 25.5 cm. 2500–2400 BC.
Fig. 29 Cup with beaked spout. H 10 cm. 2500–2400 BC.

Fig. 30 Bowl. H 6 cm. 2500–2400 BC.

Fig. 31 Bowl. H 15 cm. 2500–2400 BC.

Fig. 32 Amphora. H 55 cm. 2500–2400 BC.

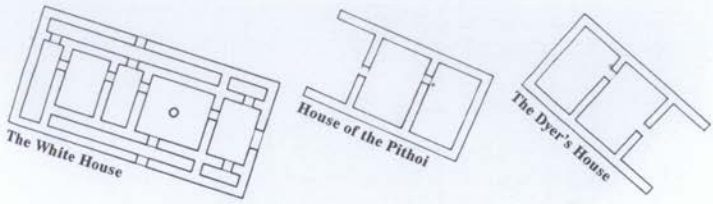


Fig. 33 Houses in Village III. 2400-2300 BC.

created a different, a third, race of people endowed with speech' / Made of bronze, not at all like the Silver Age / Sprung from ash trees, terrible and powerful. They / were concerned with the deeds of Ares, grievous and violent. Not bread / Did they eat but they had hearts of steel / Terrible were they of great strength and invincible their arms / Grew from their shoulders on their sturdy limbs. / Their armour was of bronze and of bronze their houses / Bronze they wrought'. The materials of which the people of this Age were made are the hard wood of the ash and bronze. As Hesiod has it, a mighty race of heroes who were bound up with bronze.

Domestic architecture changed little in Village III (2400-2300 BC, Figs. 33-38). Masonry continued to be built of rubble, limestone and volcanic rock and was bonded with well mixed clay mortar. Mudbrick walls stood on stone plinths which were protected from rain; beams created the link from wall to wall. These are big houses. One of them, which measures 9 x 18.30 m., has five rooms below and three above with an open, veranda-like space all the way round them (Figs. 34-38). Let us call it the 'White House' since it was whitewashed. It is remarkably well constructed. The walls are strong and properly aligned and jointed; they are all still at right angles to each other, just as they were built. Later house walls and the weight of soil pressing on them have not displaced them. Nonetheless, there are no sharp edges and corners; in this they are similar to old Alpine domestic

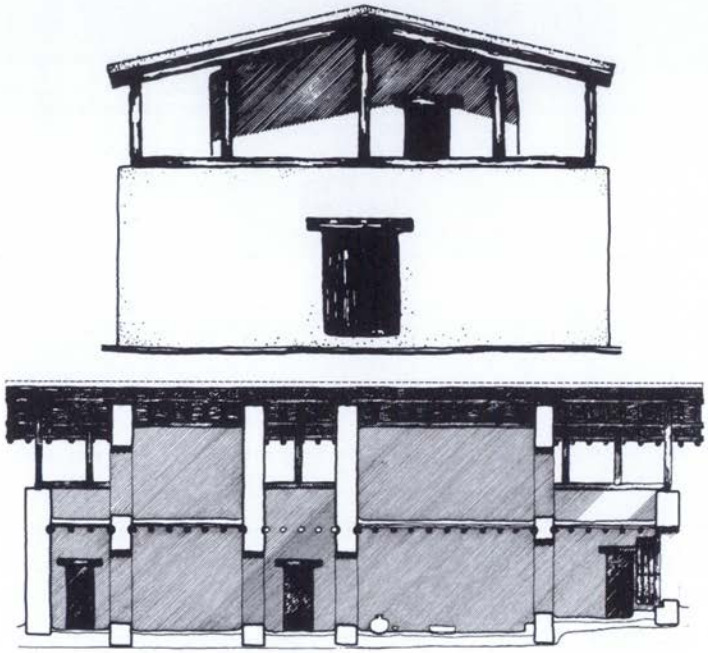


Fig. 34 'The White House'. Village III. North side and longitudinal section.

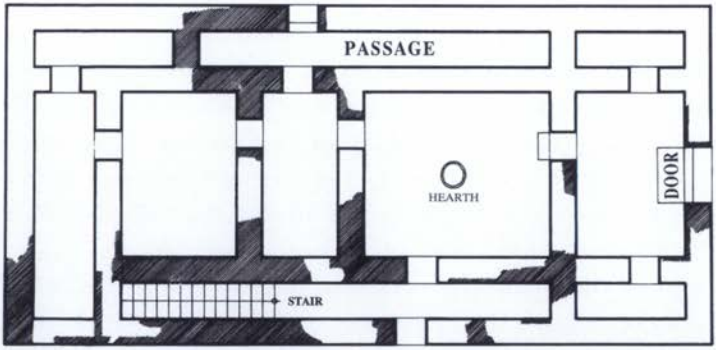


Fig. 35 'The White House'. Ground-plan. 9 x 18.30 m.

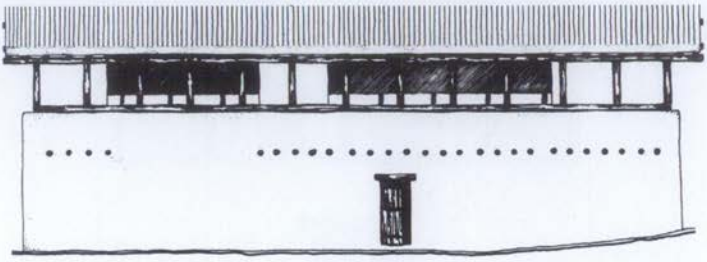


Fig. 36 'The White House'. Long side.

architecture. Where the masonry is on bedrock, grooves were hewn into it to ensure good purchase. Grooves were also prepared to receive rainwater should it happen to seep under the base of the wall.

The model and drawings of the house are based on what is extant: the ground-plan with the door openings, the foundation wall or plinth, which is 1.74 m high, several courses of mudbrick from the house walls, some stair steps, the remains of what was once the wood from the tie beams and the reddish brown terracotta roof tiles. The double walls of this house were intended to support a storey whose walls sat on the lower ones. A mudbrick stair with fourteen steps (Fig. 35) led up to a gallery-like upper storey with timbers which supported the outer edge of the roof. Why should one assume that the upper storey was open? Because this provided new rooms and many advantages: fruits, grain and hides could be exposed to sun and air; an upper storey of this type also opens up new possibilities for the lower. Even Stone Age houses already had sloping roofs so that rainwater might run off. The 'White House' boasted a pitched saddleback roof; terracotta tiles from it are extant. The walls were rendered impervious to water by a thick layer of daub. A thin, greenish layer actually afforded protection against rain and humidity. Whitewash was applied to that, as thick and

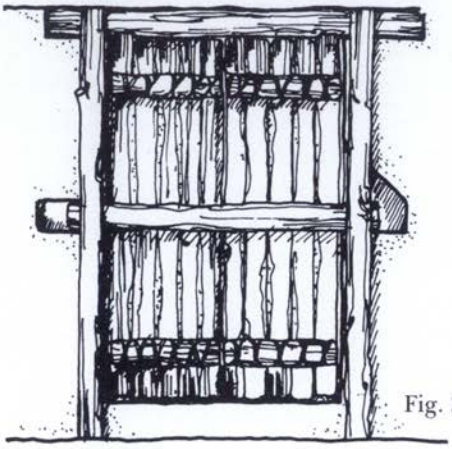


Fig. 37 Main door of 'The White House'. Reconstruction.

solid and white as an egg shell. The main door of the house is in the middle of the north wall and its pivot turned in a stone socket. The inside doors are baffle-entry to block draughts and open to reveal the rear rooms. Others open on to the passages and make the house accessible from the long sides as well. All doors open inwards. The house doors could only be bolted on the inside (Fig. 37), when the people who lived there were at home. It wasn't necessary to lock up during the day: what did they have to hide?

The 'White House' was a ridge-roofed house with an open roof truss construction (Figs. 34;38). In the main chamber, the biggest room, there was a clay hearth (Fig. 35), which was probably used for cult observances. In the middle chamber, which rose from the floor to the roof without a ceiling in between, there was probably an open hearth without a chimney. 'The smoke finds its way through the rafters and leaves a spicy scent of resin in all chambers' (K.H. Waggerl). The room would be called a 'smoke-loft', of the type still seen in old Central European farmhouses. How could meat be kept for days and even

weeks if it wasn't smoked to preserve it? After all, there were hooks for suspending meat from the ceiling beams (Fig. 19). The smoke, which wafted along the ridge-pole to escape through the rafters and ventilator holes, was also good for the wood, keeping it dry, impregnating it and preserving it. The house had no windows. People whose lives were lived during the daylight hours did not need light in the house. During the day it entered the house through the open doors. In summer the inhabitants were outdoors during the day. In winter the hearth fire was stirred up for warmth and it was light in all the rooms. And at night it was light as long as the fire was burning to shine into all the rooms and along the passages when the doors were open.

In all parts of this architecture the hand of man is felt, who prepared the clay, set stone in it and formed the mudbricks for the walls, who spread out a thick layer of clay in a sandy bed and, after it was dry, cut out rectangular plates of clay for roofing tiles and fired them.

When the builder laid the foundation walls of the 'White House', he used something for measuring which he always had right with him: his foot (30 cm by our yardstick) as the basic unit of measurement for the length and width of the house (9 x 18.30 cm), the thickness of the walls (75 cm), the main door (1.5 m), the passages between the outer and inner walls (90 cm), the size of the rooms and probably all heights. Although the exact measurements varied depending on who was building, it was always human proportions which were translated into a building. Thus man came upon an ordering principle commensurate with his needs so that his rooms were not strange or threatening to him.

Apart from all questions of measurements and proportions: the house was wholesome to live in because the materials used to build it exactly suited man's physical nature: people living in it did not have to become accustomed to building materials that were alien to their bodily needs. Sun-dried mudbricks breathe

Fig. 38 'The White House'. Plaster model.

like the human lung: they expand and contract and thus ensure a healthful exchange of air. On the rafters below the tile roof lies sea-wrack grass which is good for the lungs and respiratory system. The firm clay floor does not permit harmful fungus to grow, which is good for one's feet. A house emerged from a unity of building materials and man which must be called 'the human house'. People built by drawing on age-old wisdom given to them by nature. Of course the world was four thousand years younger then. The human foot was not the unit of measurement for the 'White House' alone; it had been the unit used for all houses since the 'Rectangular House' (Fig. 27).

Founded on a surface area covering 164.70 m^2 and seven metres tall, the house is spacious and must have looked very grand indeed with its red tile roof above whitewashed walls (Fig. 38). For whom was this extraordinary house built at the

Fig. 39 Murex shells from the 'Dyer's House' (Fig. 37).

southern edge of the rocky plateau, near the fortification wall, with a view of the southern bay and out across the sea? Perhaps a man of high standing, who possessed particular powers and who was closer to the deity than his fellow villagers, a man who ordered affairs in the village, who regulated hunting and fishing and decreed the cultivation of the fields. In this exceptional house men probably gathered about the hearth as a congregation. Cult observances are ancient and persist and so it may be that a hearth congregation had already existed in primeval times.

To the north of the 'White House' is the 'Dyer's House' (named after the murex shells found there, Figs. 33;39), with thick walls and a simple ground-plan. Between the two houses, and similar to the 'Dyer's House', is the 'House of the Pithoi' (named after the pithoi or vast storage jars in it, Fig. 33). The houses were evidently dotted freely about the village; there were no alleys or paths which led to them. Instead loads of pebbles were laid down about the houses. Nothing could be found of the fortification wall along the entire east side. However, one gateway with wedge-shaped, thickened cheeks and a piece of wall have been preserved. Right behind them is the 'White House'.

Great quantities of murex shells, a marine mollusc, lay in the 'Dyer's House' (Fig. 39). When Sirius, called the Dog Star because it brings searing heat to man and animal, rose, the molluscs hide for thirty days. In early spring they gather and secrete a purple substance, a viscous liquid, with which women dyed garments. This is what they did in the 'Dyer's House'.

Household utensils were needed for living: pots and tools. The pithos was the main vessel which stood in every house, a container for provisions in which grain, fruits, and olives were stored. It had its special place on the floor of the house into which its blunt foot was set (Fig. 40). There were little pithoi and big ones, some nearly as high as a man, most of them with four lugs or handholds for carrying. Two stood in the 'Dyer's

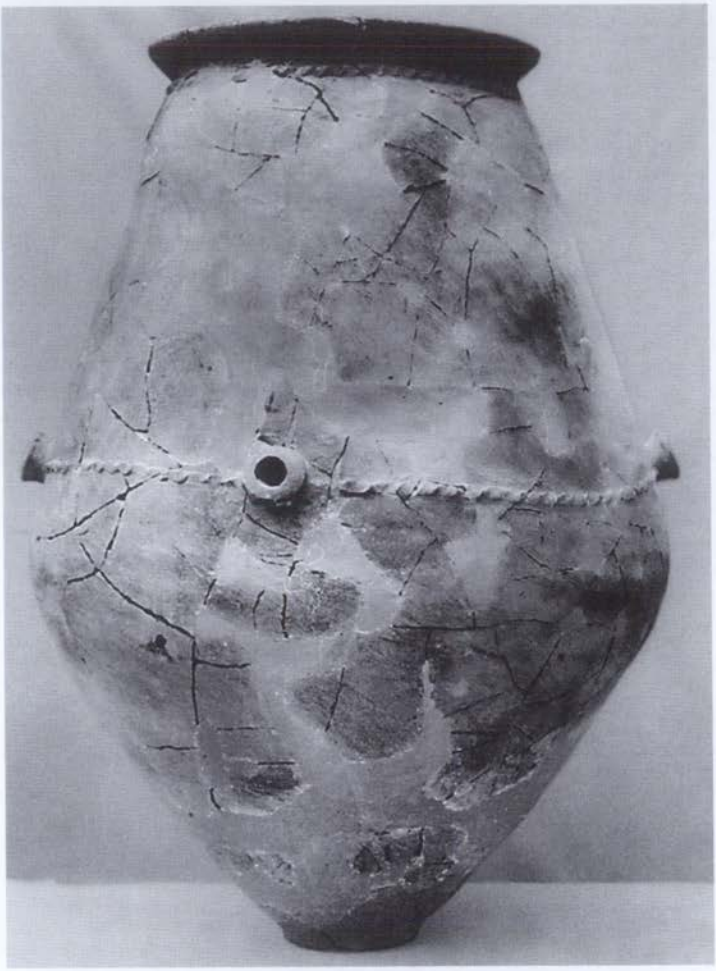


Fig. 40 Pithos. H 104 cm. 2400–2300 BC.

House'; in the neighbouring 'House of Pithoi' there are an elongated and an almost spherical pithos (Figs. 40;41). Most were smaller pots. Twenty-eight whole pots lay in the 'White

Fig. 41 Pithos. H 72 cm. 2400–2300 BC.

House': four pithoi, amphorae, jugs with beaked spouts, pyxides, tankards, bowls, small bowls and plates (Figs. 42-44).

In this century vessels are stereometric in form, pure form which is more effective without patterns. The jug in Fig. 42 is simple, beautifully clear like a crystal. 'Form which is properly achieved expresses its thanks by taking care of content all by itself' (W. Kandinsky). In addition to crispness of form, the hand can be imagined which grasps the jug between handle, neck and shoulder and holds it to a body. Yet such vessels have something unreal about them. One gazes at the pithos handhold as if at a magic sign (Fig. 40).

The pithos, the jar with the beaked spout (Figs. 40;42) and the 'White House' all belong together; and, if it can be said of

Fig. 42 Jug. H 26 cm. 2400–2300 BC.

the house that it is architecture, one can say of the jug and the pithos that they possess the same powers of form. Of course there is no return to the simple beauty of such forms and the stringent tectonics of the house.

The fate of the third village is unknown. Traces of fire or violent destruction could not be found on the house walls. One cannot imagine what event forced the inhabitants of the village that followed the third village to build a metal smelter in the main chamber of the 'White House'. Nonetheless, it would be

Fig. 43 Cup with beaked spout. H 17.5 cm. 2400–2300 BC.

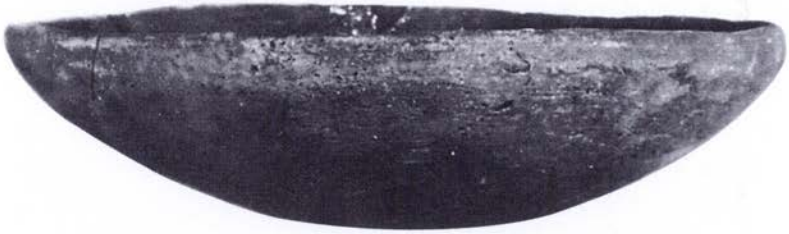


Fig. 44 Bowl. H 6.6 cm. 2400–2300 BC.

strange indeed to give up such a house without having to; it was probably damaged or partly destroyed then.

A few walls from Village IV (2300-2200 BC) are known: the corner of a house, the 'White House', which had been demolished down to the stone plinth, with annexes for workshops. Nevertheless, this was not just a hastily got up village; the copper-smelter features too prominently (Figs. 45;46).

Copper has been mined since the late Stone Age. The metal was melted simply in crucibles and the molten metal was poured

into ingots. One day a man of Aegina united the smelter and the pouring of ingots in one facility. The builder of this furnace set up in the main room of the "White House" (Fig. 35) a 'platform' of sun-dried mudbrick and set a crucible on it as the actual smelter because it had to be both accessible and walled in with fire-resistant fire-clay bricks since smelting would actually take place in it. The elements of the smelter below ground – the roasting-hearth grate, the runner with a gutter for the molten metal or charge, the runner-cup and the ingot mould – were built into the brick platform in the form of specially modelled fire-clay bricks (Fig 46). As long as the smelter was heated, all the bricks were hot and the warmth lasted even after the smelter was no longer red-hot, which prevented the molten metal from solidifying on its way down to the ingot mould. The facility (Fig. 45) is simple; only the cone-shaped fitting, the slag taphole, below the grate seems complicated. That is where the upper end of the runner is located which supports the grate and carries the molten metal on its way down. To make both processes possible, the runner and the gutter for the molten metal are semicircular in section and their wall is high, drawn up like a funnel right under the grate. A bellows did not bring in oxygen to keep the fire fanned; this was a natural-draught furnace. Just under the surface and perpendicular to the runner there is an air channel or tuyere which runs from north to south. The tuyere is lined with clay and closed at the top. Cool air from outside enters it, especially when the north wind is blowing, to make the charcoal glow. Since the smelter was only compressed by the houses of the village that followed and remains of metal, gangue minerals and fluxes were still in it, the smelting process can be precisely reconstructed. The caster laid several layers of glowing wood charcoal and pieces of ore into the fire-resistant 'melting-pot' and closed its hood, leaving only a tiny vent for smoke to escape. When the metal was in a molten state, it flowed through the grate without a tap, was conducted through the narrow funnel

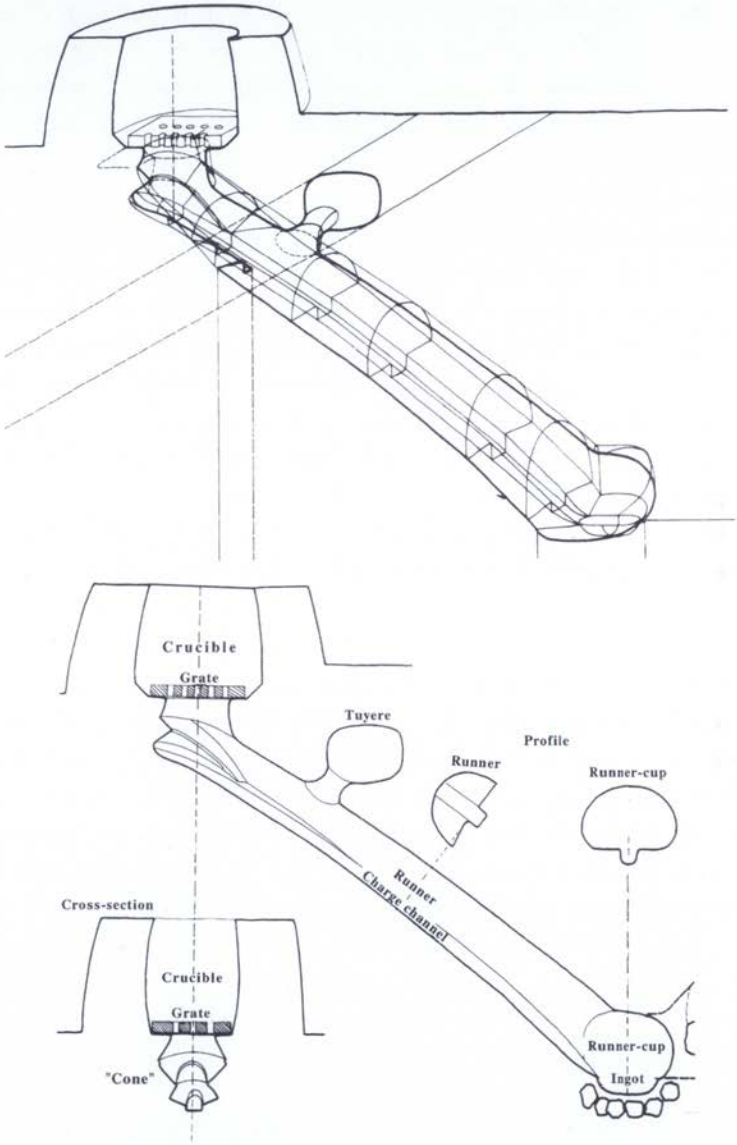


Fig. 45 Copper-smelting furnace. Isometric drawing and longitudinal section of the runner. 2300 BC.

into the 1.80m long runner and into the runner-cup and solidified into ingots weighing between eight and ten kilograms in the ingot mould. The piece of metal was removed from an opening in the runner-cup when it had cooled. Where did the slag remain when the copper had become molten at 700° C and had flowed down? It had to be kept back and was not allowed to go through the grate into the runner because it was inaccessible from outside and could not be repaired if it happened to be damaged by any slag which might have forced its way into it. To prevent this happening, the coppersmith put a calcite stone, either sparite or heavy spar into the crucible. Calcite possesses the properties of melting at the same temperature as copper ore, of purifying it and binding the slag when the molten metal leaves the crucible.

The ore, like all metals, forms in the earth and matures. When man discovered the veins of ore and hammered the copper ore out of the ground, he brought it to the smelter, where it was purified of slag over the fire and changed from copper ore into pure, soft copper. The more often a metal is remelted, the more ductile it becomes because its slag content is reduced each time and the easier it is for the coppersmith to beat weapons and tools from it. Much later people still believed that the man at the smelter was possessed of active demonic powers. The process that took place in the fire must have seemed to them like something caused by other-wordly forces.

Copper was not the only metal to be mined and smelted. Next to the copper crucible a crucible without a runner was found. Probably lead was melted in it in a basin or runner-cup integral with the mould. Lead melts very easily over fire before even becoming red-hot, at a temperature of 327° C. Lead was used for a great many things: rivets, weights, spindle whorls; broken pots were mended with lead wire; lead was also used in ship-building. Considering what a high standard had been reached in metalworking, one can safely assume that alloying

was already known; arsenic may have been used as an alloy in copper.

A person who deals with natural raw materials does not invent; he discovers (Werner Heisenberg). Living in the third millennium BC, man first had to discover the potential inherent in a copper ingot and the effect of calcite spar on the process of smelting. The metal-caster had to have insight into 'chemical' processes: he had to know about the interrelationship between fire and a draught of air and had to know the speed with which molten metal flowed so that it would not cool down on its way to where it had to go. Not until he knew what fire exacts of metal, what metal loses in fire and what it gains could a smelter be suc-

Fig. 46 Copper-smelting furnace. Terracotta model. H 1.40 m (Village IV. 2300 BC).

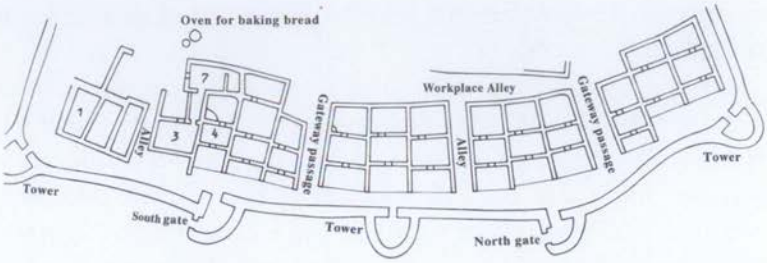


Fig. 47 Village wall with Village V houses. 2200–2050 BC. L 85 m. From the east.

cessfully built. The copper-smelting furnace at Aegina is the earliest of its kind on Greek soil. When it was built in about 2300 BC, an early form of shaft furnace had been created.

What we take for granted is not what people took for granted four thousand years ago. Even fire is not a human invention; it was discovered. According to Greek belief, it belonged to the gods alone until Prometheus secretly brought fire, hidden in a hollow tube, from Mt Olympus to earth. Zeus was so enraged at this deed that he had Prometheus chained to a rock on Mt Caucasus. In his wrath Zeus decided to exchange the race of mortals for a new one. As a punishment he sent mankind a woman in the form of Pandora with a vessel in which all evils and diseases were concealed. When she was among mortals, she opened the lid and released all the miseries; all that she kept back was hope.

Village V (2200-2050 BC, Figs. 47-52;78;79). Probably only remains of the village wall to the west and the sea have been preserved. When the edges of the cliff broke off, parts of the wall, too, crashed down with them. However, about eighty-five metres of the important eastern part of the wall with its five towers – two of them were also gates – have been preserved. With a stone foundation (1.2 m high) and mudbrick (about

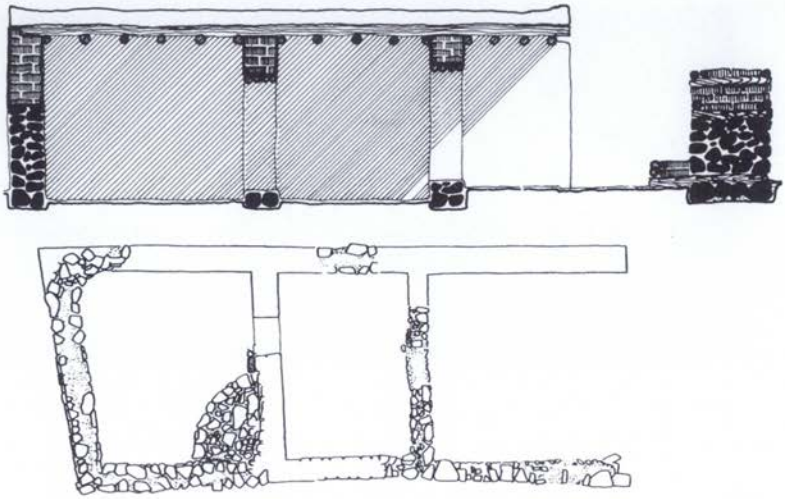


Fig. 48 House 6 reconstructed with village wall and abutting step. Ground-plan of House 4.

60 cm high) above that, the village wall was not built differently from an ordinary house wall. Since the fortification wall was not wide enough for a rampart walk, a low mudbrick step, reinforced with timbers, was added to the foot of the wall (Fig. 48). This enabled defenders to use the wall as ramparts.

When a fortification wall was being attacked, the gates were its most vulnerable part. If the gates fell, so did the village. It was therefore necessary to reinforce the entrance. A rotunda-like section of wall was built about it (Fig. 52). Anyone entering had to pass the curve of the wall first and then come through a narrow passage into the alley inside. The gates opened on to the south; the fierce north wind and rainwater which could flow into the entrance were feared. As for attackers, it was more difficult for them to force their way into the village up an incline. And when a warrior, lance or sword clenched in his right hand, stepped out of the gate, he held his shield in his left and thus confronted his adversary with his protected left side.

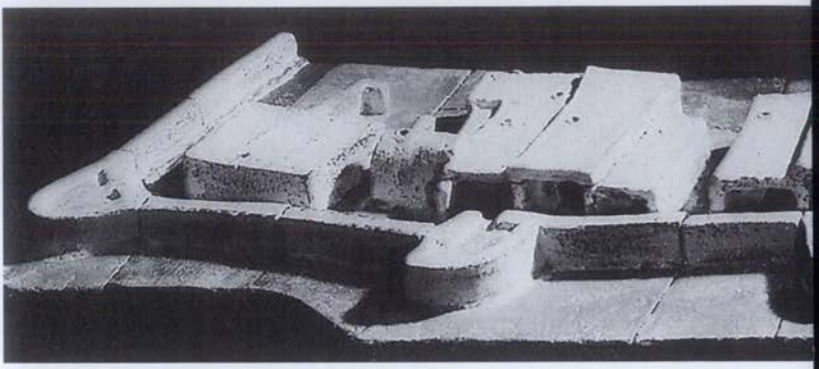


Fig. 49a Clay model of Village V, with village wall and houses. From the east.

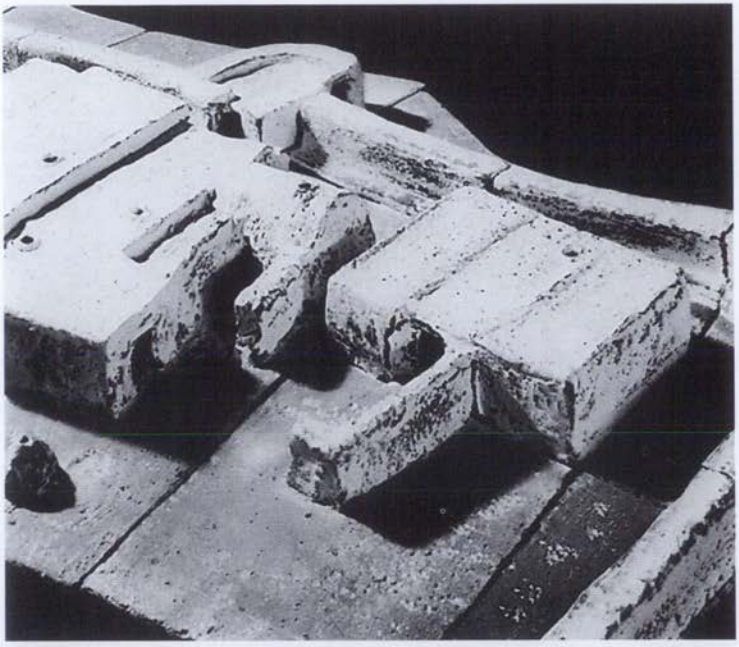
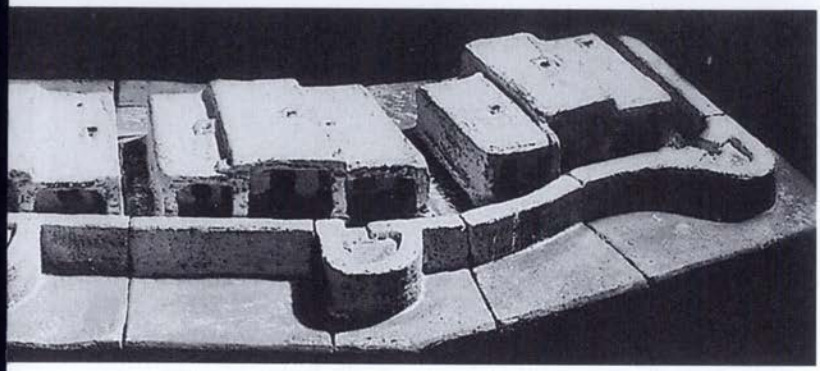


Fig. 49b House 1, 'smithy' 3 and other houses. From the west.



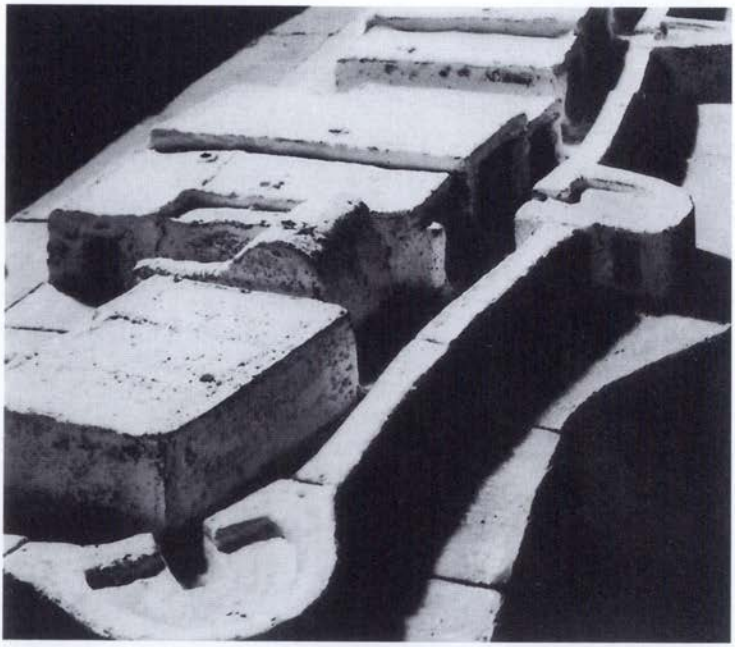


Fig. 49c House 1, 'smithy' 3 and other houses. From the south.

The gates were covered towers with ramparts which afforded the warriors standing behind them protection. A semicircular tower was necessary to reduce the distance between the two gate towers, ensure good firing range and provide flanking protection for the gates. There would also have been towers on the long sides of the village wall facing the shore and the open sea. A second line of defence was behind the wall on the roofs of the houses, which were about 2.40 m high (Figs. 47-49). The enemy could be fought from here when he approached the village wall or even when he had already breached the gates.

Fig. 50 'Smithy' (modern roof). Village V houses. From the south.

Row houses shaped the plan of this village. Residential quarters were formed by two or three houses having common walls (Figs. 47;49). Two main streets, starting at the two gates in the fortification wall, led quite some distance westward through the village (Figs. 47;112;113). Running at right angles to them and bisecting them were other streets. One of the main streets led to a workplace (Fig. 47). Wherever necessary, narrower alleys were laid down between the residential quarters. All this is what made the plan of village so clear and easy to understand. The alleys made the residential quarter and the village

Fig. 51 'Smithy' and court in front. From the west.

accessible. It was possible to reach all gates, towers and house doors.

The form of house preferred in Village V has one storey, is rectangular with two long walls and, at right angles to them, walls which usually partitioned the interior into two to three chambers behind an open vestibule (Fig. 49). Houses with common walls have flat roofs supported on tie beams and a clay

Fig. 52 South gate of village wall. Village V (Fig. 47). From inside.

ceiling. There may have been a supporting upright timber at the entrance. Sun-dried mudbricks were laid in courses on a stone foundation (Figs. 50-52). There was usually a hearth in the corner of one room (Fig. 48), a few slabs of stone with two stones set upright on which a pot for cooking could stand above a charcoal fire. House 3 (Figs. 47;49-51), just behind the fortification wall, has a pointed arch and the masonry is stone all the way up. However, this is not corbelling, which means that hewn stones are laid in courses, each one projecting further into the centre the higher it goes until the keystone closes the gap and carries the thrust of the walls. Building here took place with little unquarried stones so that the clay mortar had to be very skilfully mixed. The house with the pointed vaulting over one room and an unpaved little court in front of it was probably a 'smithy' or a workshop in which similar work was done. Next to the 'smithy' and linked to it by a wall stands House 4 (Fig. 47), in which great quantities of grain and flour lay on the floor round a quern, more of it than one household would have needed. Here in the southeastern part of the village, not far from the workplace, are the 'smithy' and a 'flour shop'. Consequently, the adjacent building, House 1, with three chambers and nineteen pots was probably a 'pottery'.

At the southern end of the alley leading off the work square stood an oven in which bread was baked (Figs. 53;47). The baking oven has not been preserved entire but enough of it is there to tell us about the shape of the oven and how baking was done. The oven was encased in fire-clay brick and shaped like a beehive. A hole with a pointed arch, framed with stone, afforded access to the firing chamber, which was also where the baking was done. In front of it was a little pit, lined with clay. This oven was not all that different from the old farmhouse ovens which are still encountered here and there in the country; it was smaller and did not have the high substructure

they tend to have. Bread was baked in the same way in Aegina as in old country ovens today. Grain – spelt was actually found – was ground slowly and carefully with the handy little quern (Fig. 18) in such a way that the wholesome nutrients it contained were kept. After the dough was kneaded, the oven was prepared to receive it: split logs, which provide a hot fire, were laid in the oven and lit and then the hole in the oven was closed up with a stone. When the casing and the bottom of the oven were hot enough, the stones changed colour and became white. Now it was time to clear the glowing coals out of the oven and into the pit and push in the bread dough. The bread baked in the radiant heat stored in the fire-resistant casing, the pebble bottom and the pit with the glowing coals. Wholesome crusty bread baked in a wood-fired oven.

One more circumstance should be noted: the workplaces and the ovens were close to the village wall into which less timber had been laced so the danger of fire was less acute than further inside the village. And the shops for bread, flour and pots: they too were in the front of the village so that they were conveniently located for everyone to provision themselves.

The village was cramped. The houses were close together and the alleys narrow, scarcely wider than 1.20 m. Yet day-to-day living took place not within the confines of the village but outside on the uncultivated field in front of the village wall. There people had little hearths and could set up makeshift timber shelters in holes in the rock to sleep there in summer. That was where the animals were kept in temporary pens when they were not out pasture. There was no room for animals in the village itself.

Not all the houses in the first terrace, or row, were accessible because later wall builders erected fortifications in and on the houses (Fig. 148). Nonetheless, these houses, too, could be opened up and numerous vessels and utensils were taken from the rooms (Figs. 54-62). In House 1 stood nineteen pots, includ-

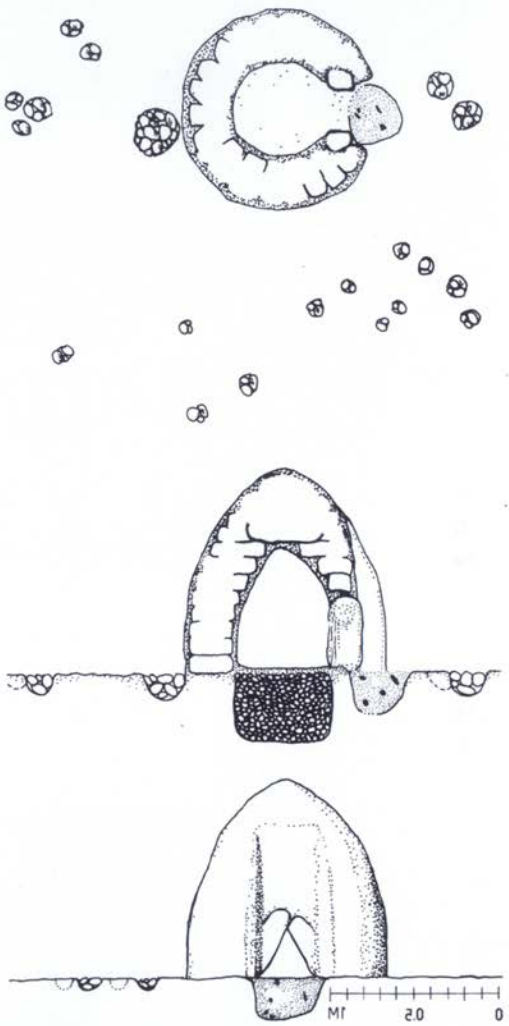


Fig. 53 Oven for baking bread (Fig. 47).

Fig. 54 Amphora. H 21 cm. 2200–2050 BC.

Fig. 55 Tankard. H 16.3 cm. 2200–2050 BC.

Fig. 56 Amphora. H 68 cm. 2200–2050 BC.

ing fourteen tankards; in House 7 there were fifteen pots, including four amphorae, two jugs and tankards. Most of these pots are unpainted, thick-walled and coated with a thick glaze that ranges from black to grey and brownish. Jugs, tankards, bowls, kantharoi, cups, incense vessels (Fig. 62) and all sorts of implements like spindle whorls, loom weights and clay hooks (Figs. 14;19). During these decades the potter's wheel was devised yet vessels retained the enchantment of having been shaped by hands. A distinctive local 'style' emerged with each village. It is part of the history of this pottery that old shapes are linked with new motifs on it in which the influence of newly ar-

Fig. 57 Storage jar. H 57 cm. 2200–2050 BC.

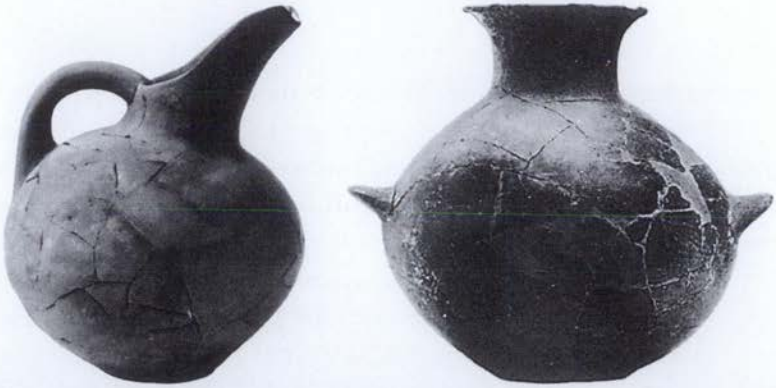


Fig. 58 Jug. H 32.5 cm. 2200–2050 BC.
Fig. 59 Amphora. H 29 cm. 2200–2050 BC.

Fig. 60 Bowl. H 11 cm. 2200–2050 BC.

Fig. 61 Kantharos. H 13 cm. 2200–2050 BC.
Fig. 62 Incense pot. H 13.2 cm. 2200–2050 BC.

rived people is not discernible. This is especially true of the amphorae with groups of opposed diagonals (Fig. 54). Strips, either singly or multiple, have belonged to the basic motif repertoire since the late Neolithic. But let us not forget: the vessels are the work of potters long established locally and they were made before the village destruction by fire; on them lay the ash and the debris from the walls of houses which had burnt down.

Houses in quarters instead of individual dwellings – that means something new in the social nexus that is the village. What may have been the reasons for this? Perhaps the popula-

tion had grown so that the living space had become cramped or newcomers settled from another village; the community may have been restructured or it may have seemed desirable to move families closer together.

Should one or must one call Village V a city? There is a rule of thumb: many houses make a village into a city. The answer to this question is just as difficult as the question of how many grains make a heap. The size and the number of houses in a village are not what matters in this connection. Ancient Aegina V is a village and remained one as long as people lived on the hill. What it developed into was not a city but a fortified village.

Early man was a creature of nature who did not chose the communal way of life of his own accord. Nature and the will to live bring about the form a community takes. How did people live together? How did the division of labour operate? The question arose even with regard to the first village yet it seems easier to answer for this one. A village wall makes people join together in both the external and the internal sense of the word. Anyone living within the wall belongs to the community. Living in a village community in turn necessitates a division of labour. Some people cultivated the fields, others were fishermen, hunters and herdsmen and some had the aptitude for being craftsmen, metal-casters, blacksmiths or potters. Some stood on the towers and guarded the village. Bartering probably went on with neighbouring villages but not among the people in one village. After all, what would the man on the tower have exchanged for a loaf of bread, a fish or a jug? Each family owned a small stock of necessary household goods but no one baked bread just for himself or made jugs just for himself. No one practised metalworking just for his own use. The pottery was not the potter's private shop nor was the flour shop the baker's. No one regarded the field as his personal possession. No woman dyed her clothes alone. Tasks were assigned to

each and everyone. Many cultivated the fields. Men were active tillers of the field, hunters, fishermen, herdsmen, bakers, woodcutters or stone masons. Particularly able people were metal-casters, blacksmiths or potters. With the cultivation of fields and sowing crops women had new chores in addition to housework and taking care of children.

Caring for the basic needs of life was the concern of all members of the village. The field, the animals, fishing or hunting filled the living space of each individual even though there was no other living space and no freedom other than the village and the community it represented. How were social differences to exist in such a close-knit community? Everyone was poor and rich, everyone owned everything. No one called this or that his personal possession. They knew how to work together. 'Termite colony' or 'primitive equality' are misnomers, false analogies because, in a village community as early as this one, work was divided up according to the abilities of each individual. The individual stands at the beginning, not at the end of a culture. The individuality by means of which they recognised each other did not consist in behaviour or temperament nor in 'character traits'. People recognised each other by what they did. One man could hew stone well, another could handle fire and wood, yet another was skilled at building masonry. Others possessed prowess as hunters and fishermen. When people today are called Mason, Carpenter, Hunter, Fisher or Forman, their names go back to their forebears' occupations. The head of such a community was probably a man distinguished from the others by being close to the deity, perhaps a descendant of the man who had once led the people to this place.

Village V is a living organism in which everything has grown; nothing was preplanned. Houses and residential quarters determine the width and direction of the streets. It can be as-

sumed that the houses and residential quarters, shaken by the times, grew tired and inclined towards each other like the houses in a medieval village.

When strangers attacked Village V one day in 2050 BC and set fire to it and small blazes joined forces to burn throughout the village, it was not so easy to extinguish the flames with water and soil. Although only the first row of houses is known to have been destroyed, the conflagration would hardly have stopped just behind it. This was devastation by fire: the burnt debris lies up to about half a metre on the floors. There are fallen mudbrick walls. Timbers which once supported walls and carried the flat roof are incinerated to charcoal. And there are many more signs of the devastation wrought by fire: soot-blackened pots, traces left by fire on the stone house walls. When the roofs burned, the wooden beams with the grass, branches and the clay roofing crashed on to the floors of the houses, followed by the brown mudbrick walls, most of them incinerated to greyish white ash. Only the stone foundations of the houses and the fortification walls survived the conflagration. No house was empty at the time this happened: pots and utensils were standing about, grain for bread and flour lying on the floor round the quern when fire broke out. 'Covered by burnt debris' is an important finding because it ensures a date for the village, the vessels and their destruction.

The inhabitants of the village are not likely to have caused the disaster themselves through carelessness at a hearth in a house nor is it probable that a damaged oven at the workplace let off sparks. It is more likely to have been an attack from outside. One thing is certain: the enemy onslaught came from the north slope which, steep as it is, was nonetheless vulnerable to attack. In the dark of night the attackers could land their ships in the bay to the north and, under the shadow of the cliff,

creep unnoticed up the slope before sunrise. The breach in the walls through which they invaded the village was still discernible. The gate could be reached via a well which had been dug in the fortification wall of Village IX in the era of the sanctuary. The incursion took place at the north gate. It was a devastating disaster which struck Village V. The people will have suffered more than one can imagine. Thoughts about man's fate and the sufferings that can befall us come unbidden to mind.

Who were the people who came from the north and attacked the village? Were they nomads: people without land and possessions who had set out from a nearby or distant homeland with herds, small domestic animals and the barest of household essentials, either of their own volition in order to find new land and pastures, or driven by others? All this remains unknown. Nomads live primarily from hunting and gathering. When they encountered people in settled communities, they will certainly have conducted barter transactions with the things they made. Then they suddenly became intrusive. This is evidently what happened on Kolonna. There was no reason for an attack other than the conflict between settled communities and vagrants, between haves and have-nots. The hardships of the nomadic life, long migrations toughened them and made them experienced in attack. And, since such people have nothing to call their own and do not know what it is to be domiciled, they have nothing at all to lose. If they meet an obstacle in their path, they can evade it; they do not have territory to yield. Even in that respect they have an advantage over the settled inhabitants of a locality. By contrast, a person who has settled permanently is tied to his house, his village and the cultivated fields because only in his community is he secure and capable of functioning. Who would leave his village, the focal point of his life, unless forced to or in dire distress! And so the people on Kolonna stayed where they were and built a new village on the ruins and life went on.

Have nomads left any traces on Aegina or elsewhere? Their pottery should be recognisable. Nomad pots differ from those made by long established communities. But where are they?

I think what is called Minyan ware (Fig. 63) and its predecessors are nomad pottery; not because of the colour of the clay but because the shapes of these pots are not local. Don't say that is simply due to the potter's wheel. The grooved foot-rims, the pronounced rim profile of these pieces look foreign and, besides, they lack the freedom of form which distinguishes the local pottery.

Did the destroyers come out of the North? No pots have been

Fig. 63 'Minyan' Krater. Clay. H 24 cm. Ca 2000 BC.

found from the Balkans to southern Russia which could serve as evidence for this. Villages were destroyed but not everywhere and not all at the same time. The Minyans, a legendary people in Boeotia, may have participated in the destruction. The Minyans vanished. The process which is called the 'Achaean' migration was a movement of Greek people within the Greek cultural landscape.

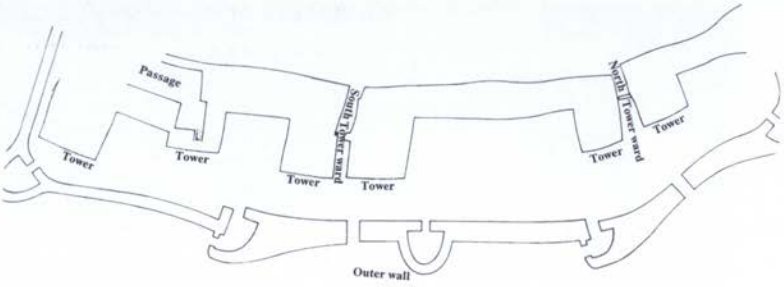


Fig. 64 Fortifications of Village VI and outer wall. 2050–2000 BC. L 77 m. From the east.

The people of Aegina did not abandon their destroyed village. Instead, they clung to the old place and rebuilt it rapidly. Time was short, they feared fresh attacks and life had to go on. Consequently, Village VI (2050-2000 BC, Figs. 64-68) came into being. The people repaired the damage to the old village wall, reinforced it where necessary and left it standing as an outer wall. Yet a complete disaster evidently had to be overcome. They didn't raze anything left standing – all they did was to remove the rubble of the destroyed buildings – but they did something which is new to anyone who is familiar with the early way of building: they put their main line of defence several metres behind the outer wall, in the ruined houses of the First Quarter of the burnt village (Figs. 47;49). Stone foundation walls still standing determined the type of wall built and its course as well as the location of the towers. They packed stones and earth into the rear rooms of that row of houses, reinforcing and mantling the weaker house walls. In places they took two houses and converted them with stones and soil into towers and reinforced their walls. Even the old 'smithy' (Figs. 47;50;51) was turned into a tower; a stair in what was once the

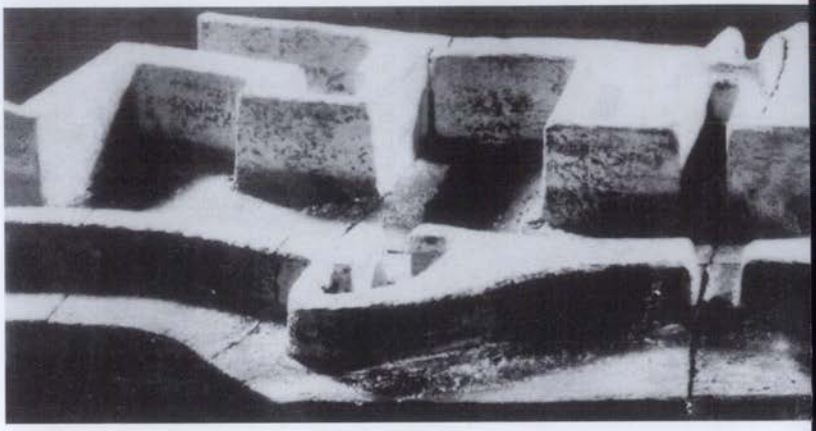


Fig. 65a Clay model of Village VI. Fortifications with outer wall. From the east.

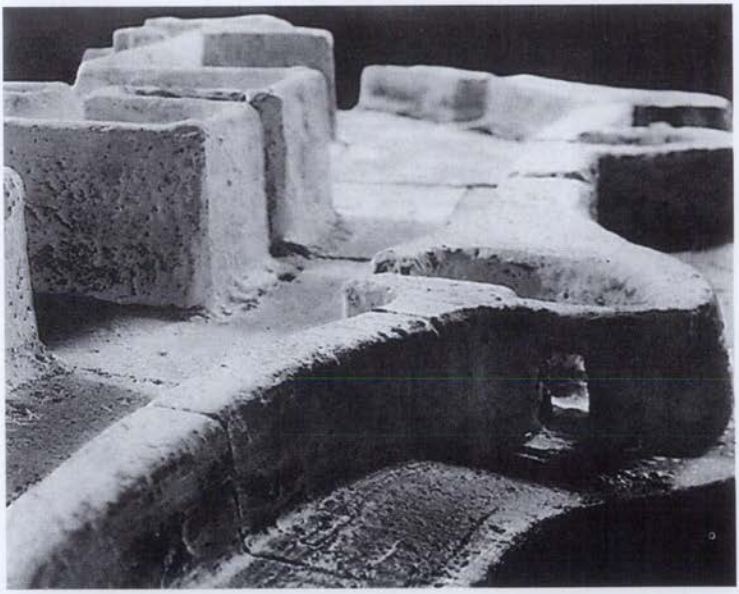
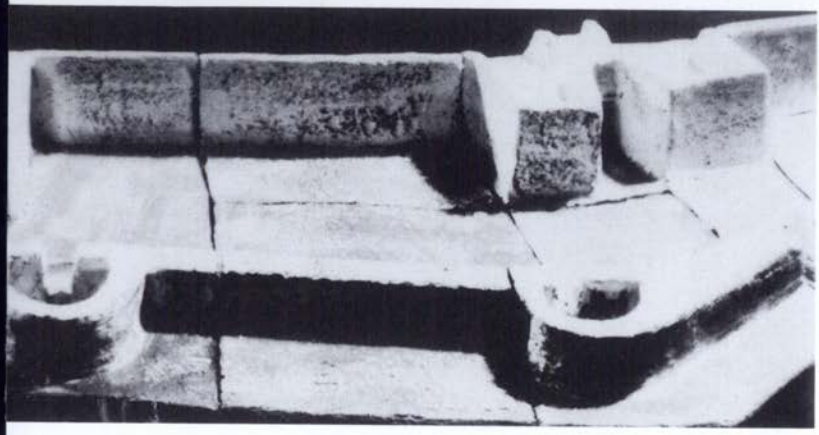


Fig. 65b Gate-towers and outer wall. From the south.



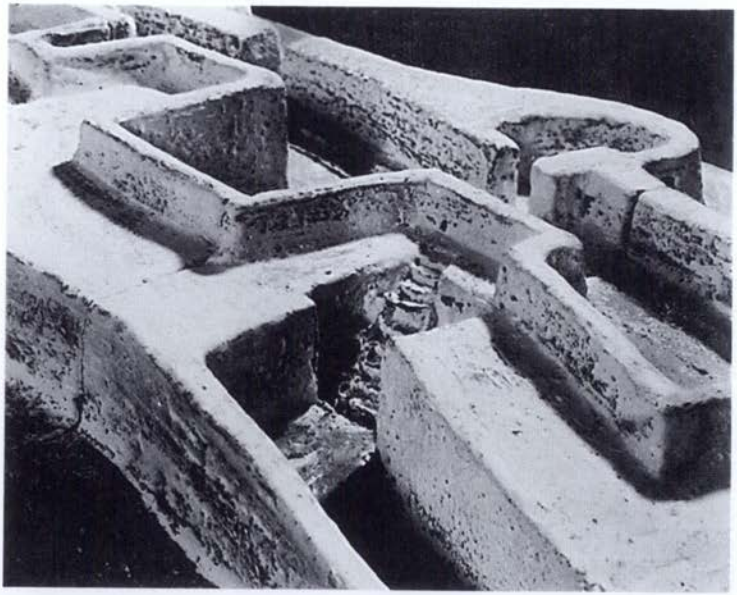


Fig. 65c South section with rampart walk. From the west.

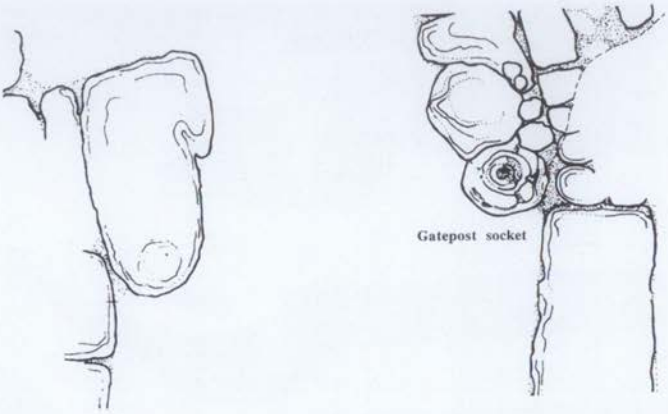


Fig. 66 South gate of the Village VI fortifications. Gatepost socket and gate jamb opposite. Gateway width approx 1.20 m.

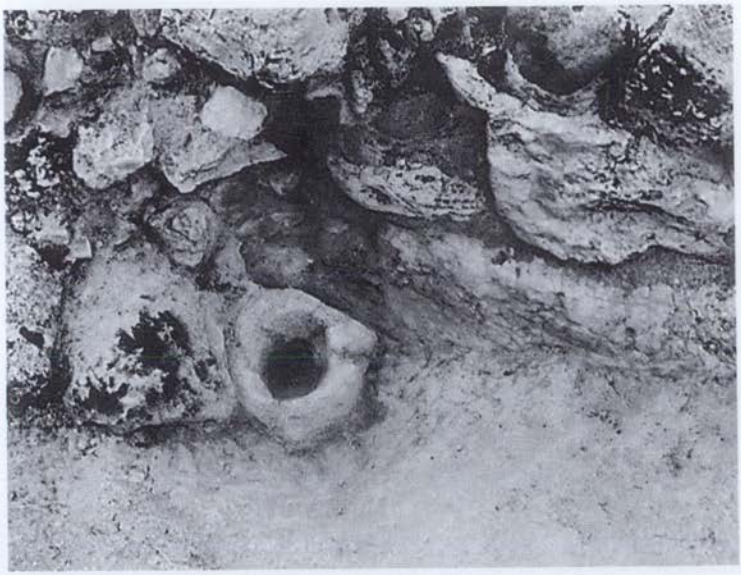


Fig. 67 Gatepost socket (Fig. 66).

Fig. 68 Threshold in north gate. From the east.

main house door leads up to the platform. Thus the system of the earlier terraced houses and the wall foundations which were left of them (Figs. 47;49;64;65) also shaped the layout of the new fortification. This is how the new main wall was built. Since the two old high streets remained, people entered the village as before, taking them to go into the western part of the inner core (Figs. 106;113). Only gates were added. The cheeks of the wall are still there from the south gate; so are the great, hollowed out stone in which the gatepost turned and, across from it, a large block of stone against which the gate itself rested when shut (Figs. 66;67). The stone threshold, 1.20 m wide and not much worn down, still lies in situ across the northern entry (Fig. 68). It had been substituted for the old one. And when the socket (Fig. 67) was too worn down by the turning of the gatepost, a stone packed in clay was laid in the

widened hollow. The old Village V wall was left standing and it became the outer ring of the defences (Figs. 47;49).

A rampart walk ran round the wall and towers – a walk reinforced with clay which was open to the inside and on the outside was protected by a rampart (Fig. 65). For the first time the defenders could also move about on the new wall and did not simply stand behind it. The towers protected the flanks. As exotic as the fortifications with their lofty towers on Aegina may seem, they were not patterned on a foreign model. The plan grew out of an emergency situation which forced the inhabitants to make use of the houses as they were laid out. They understood how dangerous the situation was after the destruction and took advantage of new possibilities to create better fortifications; to do this they sacrificed surface area once needed for living space. It was now more difficult for an adversary to force a way into the village; the outer wall had to be breached first (Fig. 65). The wall with its gate-towers must have looked massive and forbidding, castle-like and menacing. After all, it was three and a half metres high. Neither the towers nor the walls were crenellated. For all its doughty appearance, it was only a wall built to protect a village and not the curtain wall of a fortress. The plan of the rebuilt village is not yet clear but, once the houses had grown together into quarters, they continued to be like this in the villages to come.

Let us note: it was the locals, not foreigners, who rebuilt what had been destroyed; only the locals would have been familiar with the plans of the houses and the layout of the streets covered by the rubble of destruction. Invaders from other places do not build walls on the rubble of ruined houses. Moreover, the pots in the new village were not foreign ones. The potters stuck to traditional shapes. Motifs and ground colours change places. A light ground takes on dark-coloured ornament and vice versa. On amphorae and jugs motifs are

Fig. 69 Amphora. H 45 cm.
2050–2000 BC.

Fig. 70 Tankard. H 19 cm.
2050–2000 BC.

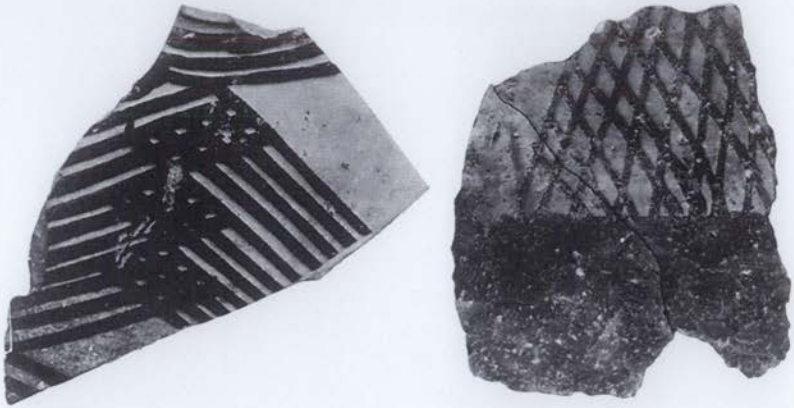


Fig. 71 Amphora. H 8.9 cm. 2050–2000 BC.
Fig. 72 Amphora. H 12.6 cm. 2050–2000 BC.

mainly confined to the shoulder (Figs. 69-72) but appear on all parts of tankards (Fig. 70). The motifs now consist in multiple lines which are close together or composed into triangles; cross-hatched angular motifs and strips follow the contours of the vessel. Both shapes and decoration are forward-looking. Therefore we can safely assume for the next village as well that the inhabitants did not change.

At first it seems incomprehensible that the inhabitants of Village VII (2000-1900 BC, Figs. 73-75) should have completely changed the fortifications of Village VI after only half a century. Not every change, even a big change, need be preceded by destruction. The old wall was not a stopgap. It was well constructed and strong; damage that occurred to it was not irreparable. Yet it was not repaired. Instead the core of fortification wall VI was left standing and the main defence wall was reinforced by new abutments to a thickness of about 6 m. It was not usual in ancient Aegina to raze something to the

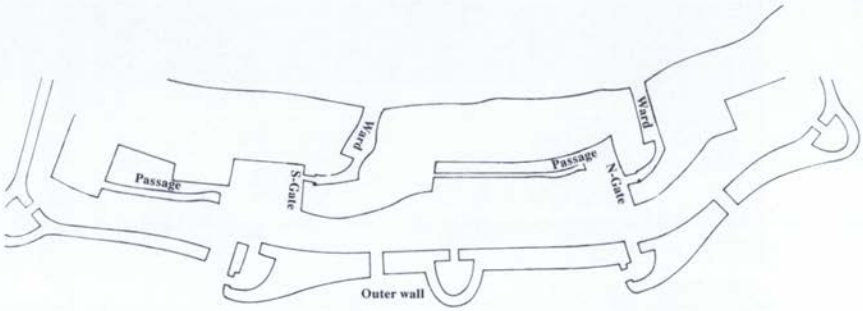


Fig. 73 Village wall VII and outer wall VII. 2000–1900 BC. L 74 m. From the east.

ground and rebuild from scratch. Only in the postern gates, where the walls were a hindrance, were some courses of masonry removed. When everything had been readied on the old wall (Fig. 75), the villagers set up a curving outer wall both to the south and to the north in front of it (Figs. 73;74;86). Between the old and new walls a space like a ward was created with tortuous gateway passages or wards which, together with the inner wall, formed an outer bailey. The two high streets led into the old alleys which even in earlier villages led into the interior, into the western part of the village (Figs. 112;113). The main gateways, fitted with cheeks and gates, again opened to the south, taking advantage of all the benefits which the south had brought to them. Barbican-like passages are more secure anyway and easier to defend; in addition, they block the view into the interior of the village. The inhabitants were used to building in this way; it was, although now on a grander scale, the old way of ancient Aegina. To strengthen the entrances, the builders set up a narrow wall at each of the main ramparts, thus creating a

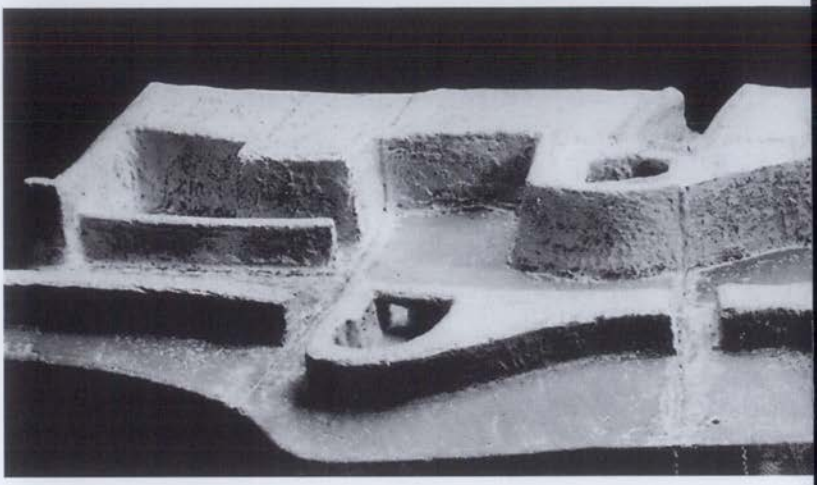


Fig. 74a Clay model of the fortifications of Village VII with barbican-like entrances and outer wall (Fig. 73). From the east.

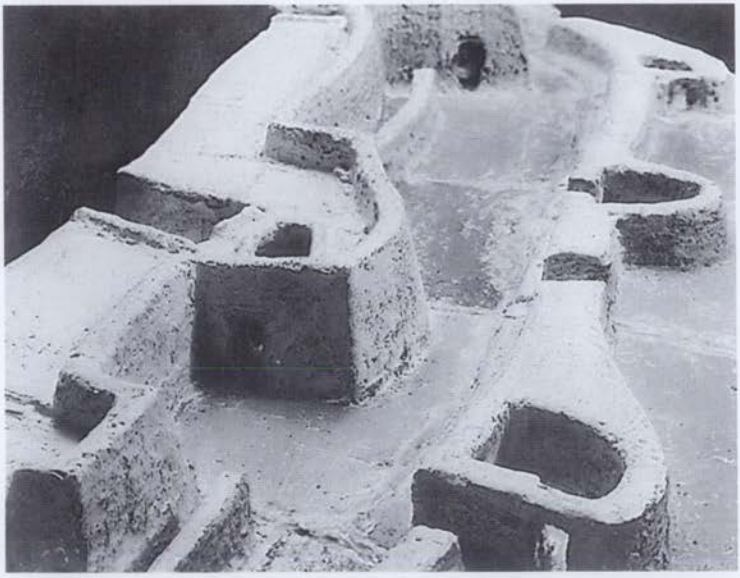
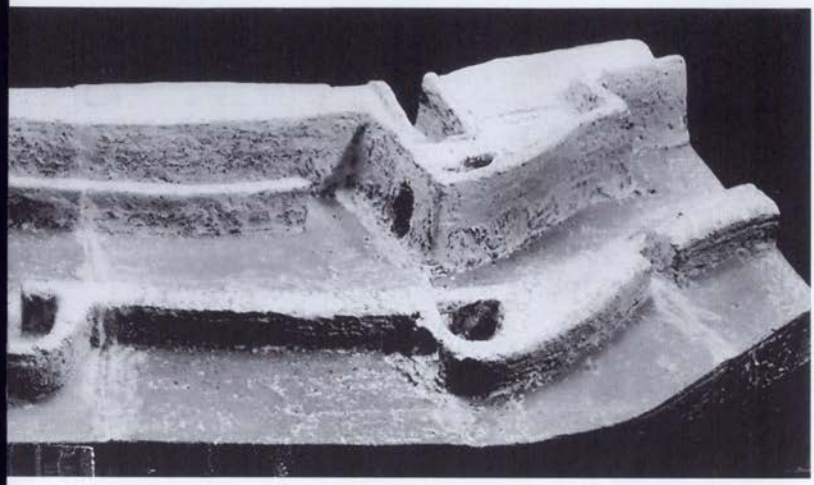


Fig. 74b South section, rampart walk and outer wall. From the south.



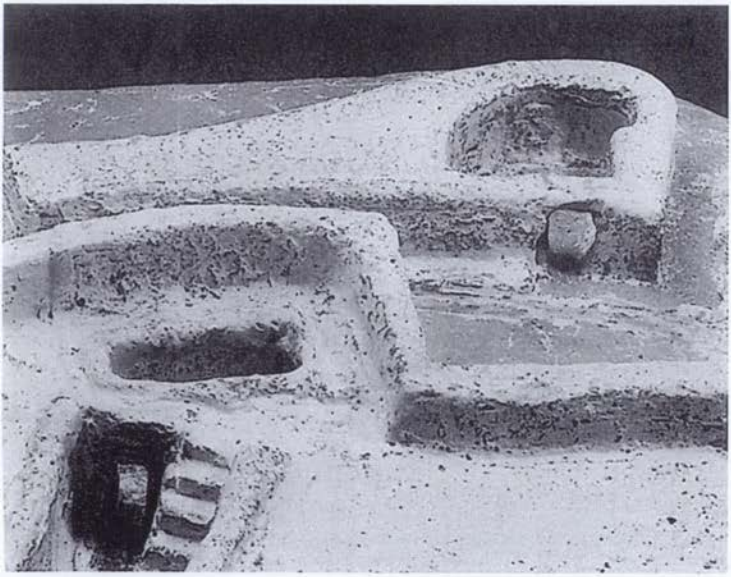


Fig. 74c Stair to rampart walk. From the west.

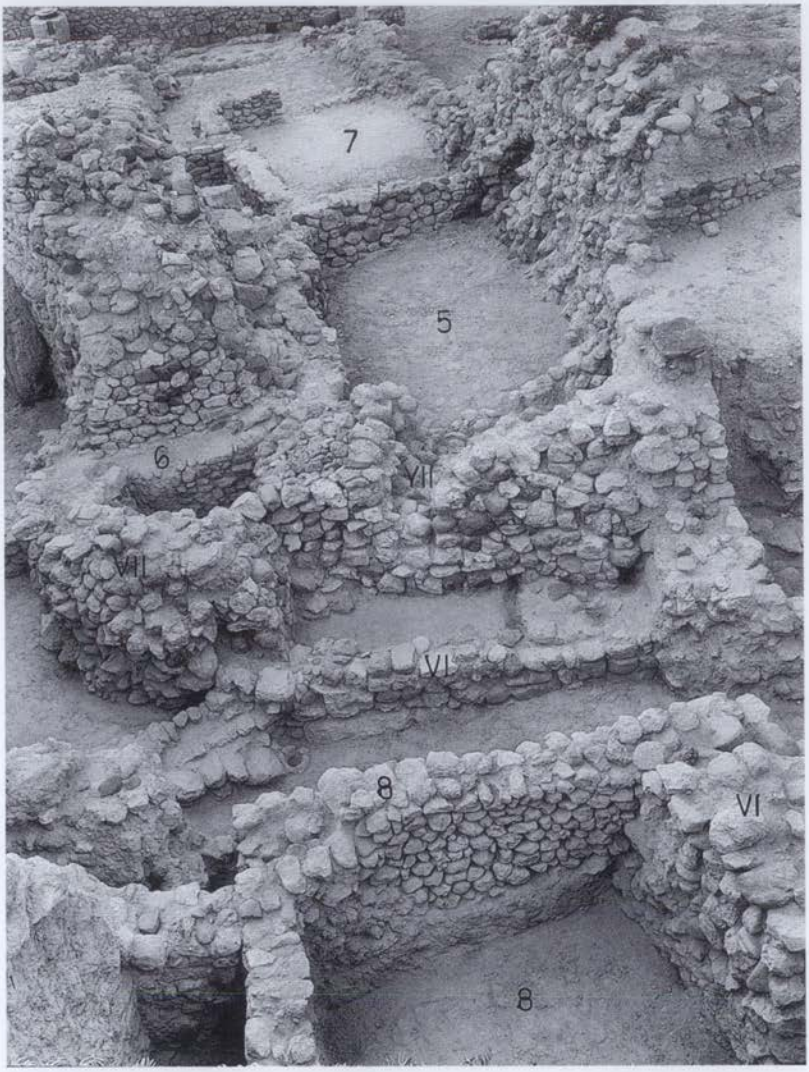


Fig. 75 Fortifications of the Village VII gateway passage. Village V houses. From the north.

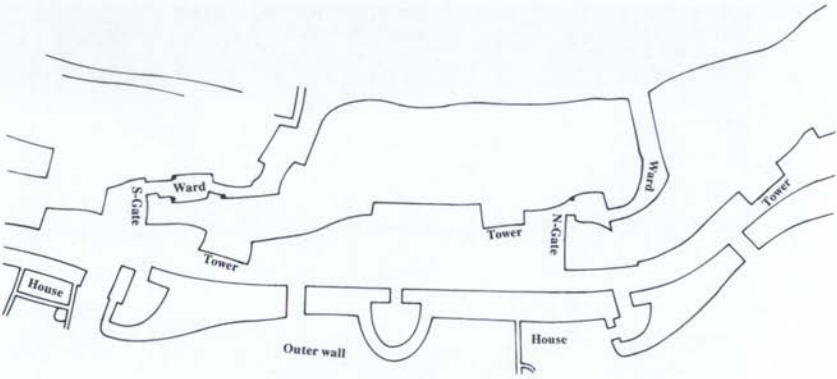


Fig. 76 Fortification walls and outer wall of Village VIII. 1900–1800 BC. L 70 m. From the east.

sally port hidden from view from outside the walls (Figs. 73;74). From it defenders could sally forth to attack the enemy from the rear when fighting raged about the gate.

The wall remained without towers. It was a curving wall, unassuming from the outside but all the more dangerous to besiegers, a salient feature of bastions. In addition, the tried and tested earlier outer wall, once the main fortification wall of Village V (Figs. 49;74), still stood. Not only was it the first obstacle for besiegers; it concealed the walls, gates and passages behind it.

Not every village on Kolonna was attacked or burnt although one should not assume that the centuries following the fire at the close of the third millennium were peaceful. Besides, methods of defence had been devised that were more practicable than before. Past experience was brought to bear on the existing walls and bastions were added. The hidden, tortuous gateway passages had evidently proved their worth and the people of Aegina preferred this type of construction. Therefore the inhabitants of Village VIII (1900-1800 BC, Figs. 76-86) clung

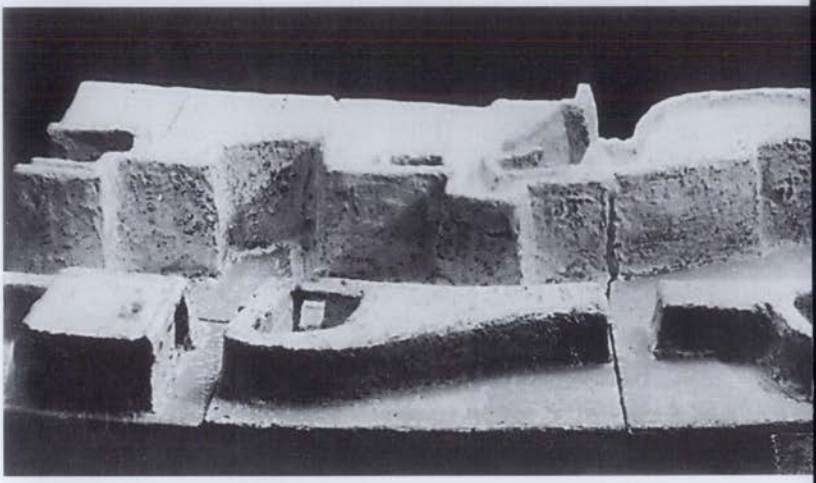


Fig. 77a Clay model of village wall VIII (Fig. 76). From the east.

Fig. 77b Main wall and outer wall in the south.

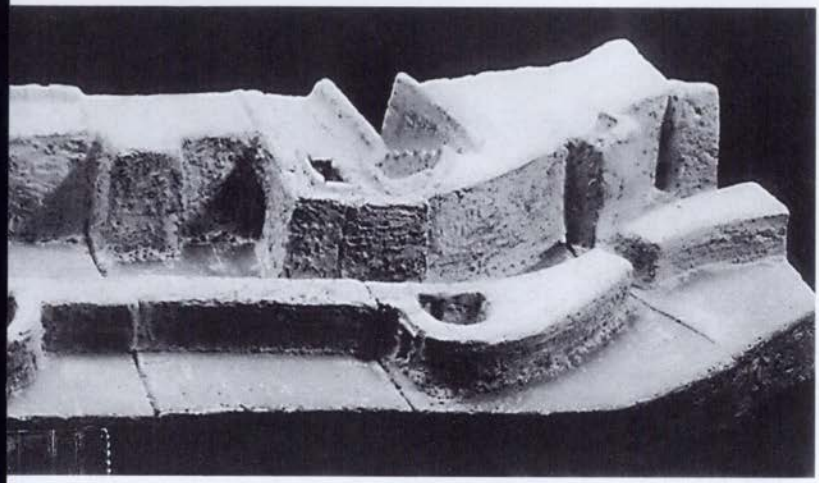


Fig. 77c Main wall and outer wall in the north. From the west.

Fig. 78 Large fortification wall at the Village VIII south gate. Walls V and IX. From the south.

to the old form. And as if that were not enough, they added reinforcing walls of huge stones perpendicular to the main wall and all along it, lengthened the wards and erected strong wall cheeks with a second gate before the fronts of the perpendicular walls. They also set a tower in front of the gate to guard it and built towers at positions important for the defence (Figs. 76-79;86). They knew that towers incorporated in walls were dangerous. If they fall, they breach the wall masonry and the stones fall out. If the tower simply abuts the wall, the wall at least remains entire if the tower does go down. The fortifications were stronger than ever now; in some places the walls

Fig. 79 Fortification wall of Village VIII. From the north.

were eight metres thick (Figs. 78;79); the rampart on the outer circuit was 1.20 m high and 60 cm thick. These proportions were taken from the bodies of the men they were to protect and they were low enough so that defenders could have full use of their weapons when leaning over the parapet to aim at an enemy at the foot of the wall.

We approach the southern gate from the south-east, passing an angle tower (Fig. 80) to stand before a gate with cheeks (Fig. 81). We spot the tortuous gateway passage, enter it, look at the gate from inside and understand how it was constructed and bolted shut (Fig. 82). The two series of gateposts have

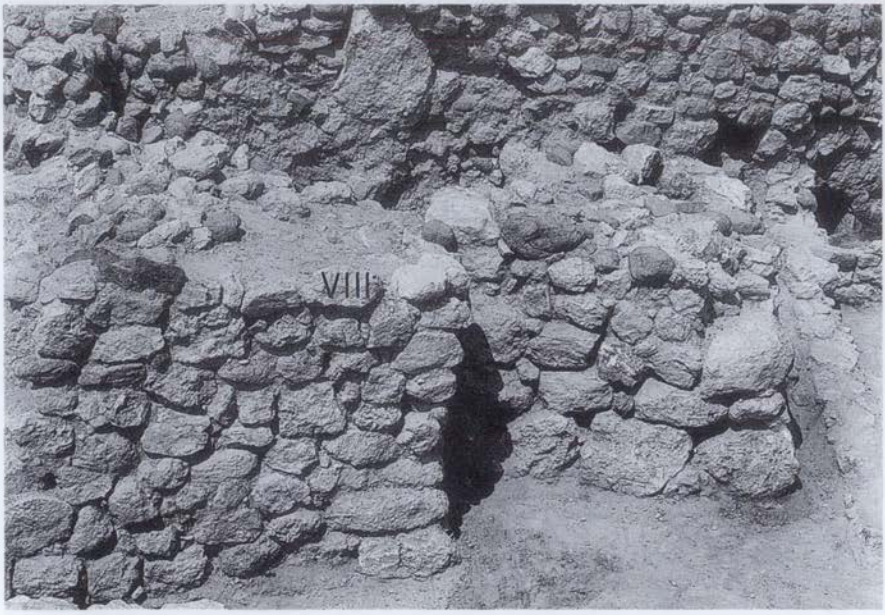


Fig. 80 Walls before the gateway entrance in the south. From the south.

been preserved to their full height; those on the outer circuit reinforced the inner, to which the gate was attached. What was perishable has vanished: the wooden gates, the timber to which the gate was attached and which turned it and the timber against which it shut. The superstructure of the gate could not remain in place without the timbers; when they fell, it went too. However, because other important elements are extant, the gate could be represented in a drawing (Fig. 83). Timbers once lay close against each other on the gate pillars above the passage. Above that there was stone and mudbrick masonry which served both as the end of the gate and as a barbican between the inner and outer wall circuits. The square apertures for the timbers that barred the gate are surrounded by masonry of huge hewn stones (Figs. 84;85). The two stone sockets for the gate posts are still in situ: the gatepost to which the

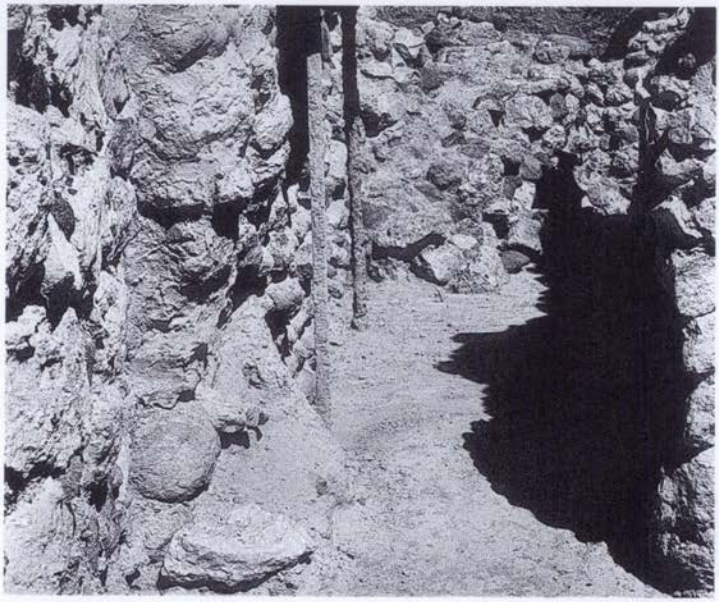


Fig. 81 The south gate from outside. From the south.

gate was attached turned in the rounded, hollowed out, hard trachyte on the right; the immovable timber against which the door closed stood in the left-hand socket, which is of softer limestone with a square depression in it. At the top two vertical timbers were held between two horizontal timber battens and wedged at the side (Fig. 83). The gate was closed from within with a timber bolt as thick as two fists which was drawn out of the socket on the right, where it rested full-length when the gate was open. If an enemy or anyone else threw himself against the door with great force to break the bolt out of its sockets, the action met the resistance of remarkably large square blocks of hewn stone behind the openings (Figs. 84;85). On the left is a large, greyish blue stone like a magic sign in the wall (Fig. 83). Its function was to withstand the pressure when someone attempted to thrust open the gate, not on the side of the pivoting

Fig. 82 Gateway passage in the south section of Village VIII. From the north.

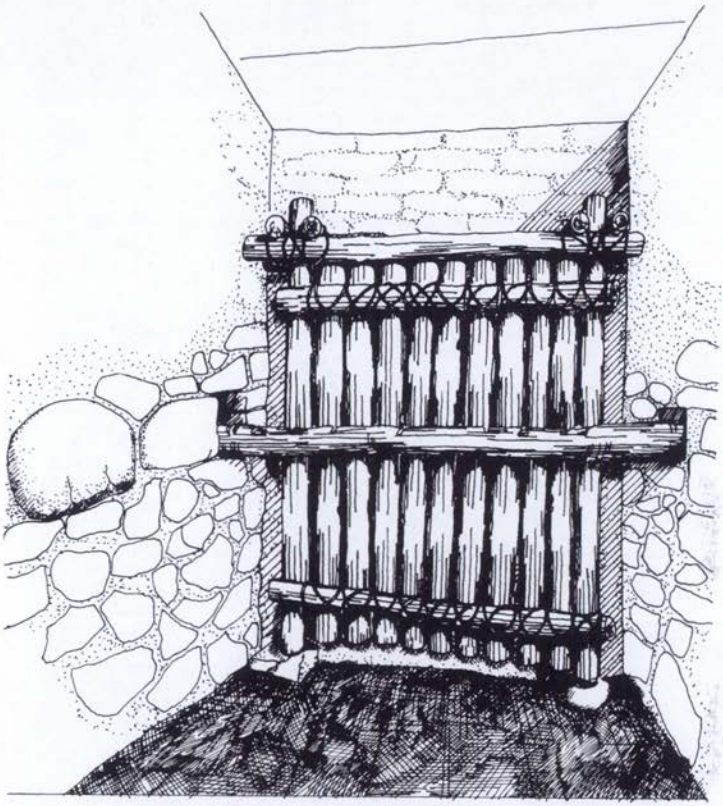


Fig. 83 The south gate viewed from inside. Village VIII. Reconstruction.

gatepost but on the opposite side where the immovable timber stood against which the door shut.

The gate had only one panel and was made of timbers, held by horizontal battens and laced with willow wands (Fig. 83). The passage below the lintel is 1.40 m high. A passage floored with pebbles leads to the second gate, which was once the outer gate of Village VII, and, in a loop, into the interior of the village (Fig. 76). Things are similar in the north entry (Figs. 76;86): between the tower and the cheeks of the wall a northern high

Fig. 84 Inside the gateway passage: left-hand gate jamb with opening for bolt; bottom: the gatepost socket.

street leads into the western part of the inner village. In front of the main fortification stands the doughty outer wall (Figs. 76;77) with a house of unknown function in front of it.

The walls of Village VIII can be viewed as reinforcement of VII. However, their importance should not be overlooked: Village VIII is the most strongly fortified of all those built up to

Fig. 85 Inside the gateway passage: with the right-hand gate jamb and opening for the bolt; bottom: the gatepost socket.

then on the hill; the men who built these fortifications were the first to set up projecting towers and bastions which would become the models for all later fortifications. Towers and bastions create angles in which defenders might lurk in ambush. The two gates were not easy to take (Fig. 76). If an enemy had overrun the outer circuit of the defences, he was still not in front of the houses; to reach them he had to fight his way through the alleys, exposed on two sides to the defenders' weapons from the ramparts.

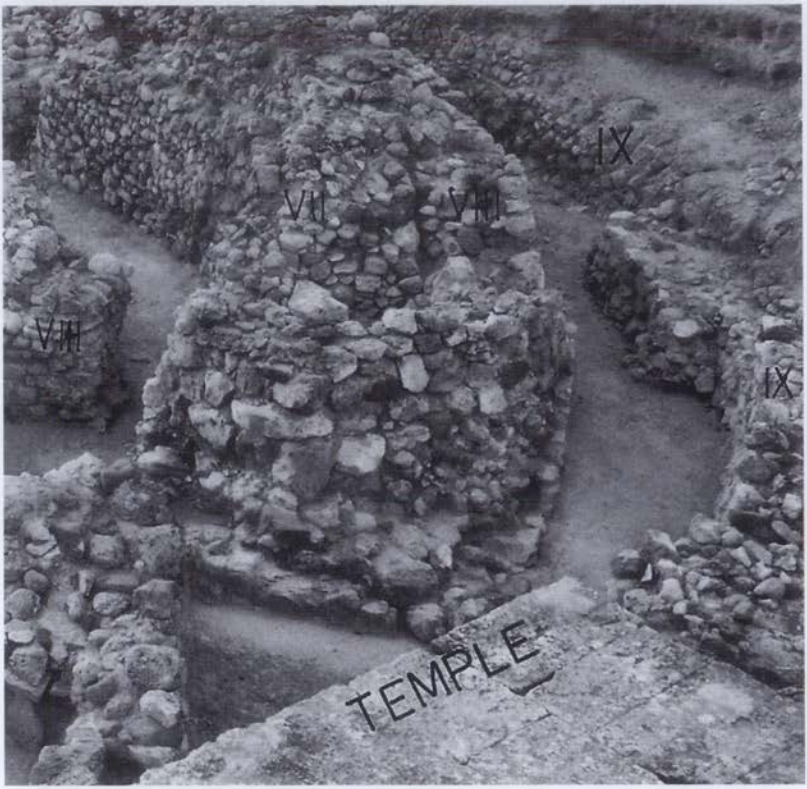


Fig. 86 Fortification walls of Villages VII–IX. North entrance, gateway passage VIII. From the south.

Walls have their own story to tell. Size and the way courses of stone are laid determine the appearance but not the strength of a wall. The fine rubble-work masonry of the wall round Village V (Fig. 87) was sturdy because the unhewn stones were set in very skilfully prepared clay mortar. The stones of the wall round Village VII (Fig. 88) are larger and, since they are unhewn, little stones were needed as headers to make the random masonry bond better. To build the main wall and the towers of Village VIII (Fig. 89), people brought large, reddish stones, turned

Fig. 87 Village wall (Village V).

Fig. 88 Village wall (Village VII).

them round and laid them back to back; their sheer weight held them together. The gaps were smaller and fewer stones were necessary. However, the strength of will it took to build this masonry is everywhere apparent. Nevertheless, don't forget: these walls were, like all the walls, filled with clay mortar and whitewashed to make them weather-resistant. The stones did not disappear beneath the layer of whitewash. Their outlines and thickness remain discernible. There is no such thing as unstructured masses of stone in masonry.

The pottery from Villages VII and VIII belongs together as far as both shape and motifs are concerned. Potters continued to use the old shapes: the pithos, the amphora, the jug, the kantharos, bowls (Figs. 90-97). However, they no longer

Fig. 89 Village wall (Village VIII).

Fig. 90 Pithos. H 58 cm. 2000–1900 BC.

formed thin-walled vessels of the type once so popular. Shapes have become noticeably more bulky and are suitably painted with thick reddish brown and greyish brown glaze and dense, variegated motifs. The basic motif is the triangle but it is not composed of simple lines at oblique angles to each other. Long acute triangles drop from the shoulder or thrust upwards; tri-

Fig. 91 Pithos. H 16.5 cm. 2000–1900 BC.

angles are superimposed or concentric. Thick lines form the frames into which the cross-hatching is tied. Circles and semicircles emerge; thick brush strokes weave motifs into carpet-like designs of great beauty. However, the jars for storing provisions are not all of the same age: Fig. 90 and Fig. 91 belong to Village VII; Fig. 92, with vivid, dense motifs and a mantle round the vessel, and Fig. 97, which is undecorated and covered with shiny red glaze, belong to VIII. Among these vessels two are outstanding (Figs. 98;99). Amphora shapes, too, are unusual. Their necks have broad, dish-like mouths. And then there are the motifs: strips and rows of dots where the neck joins the body and dots where the part with the reserved ground begins. What is new is the placement of little panels as a main picture field; at the centre is a diaper motif beneath a semicircular arc; an arc overarches the lug zone. Even though old basic motifs recur, everything is arranged differently and the overall decoration looks new. The two vessels should not be compared to a heavy, densely woven carpet. Instead, they

Fig. 92 Pithos. H 86.5 cm. 1900–1800 BC.

resemble a fine, light silk tissue that envelops the body. One is tempted to read the content from the formal idiom, which certainly embraces the practical side of life as well as nature, from the fabric. A word on the little kantharos (Fig. 96): there were

Fig. 93 Jug. H 38 cm. 1900–1800 BC.

Fig. 94 Kantharos. H 13.2 cm. 1900–1800 BC.

Fig. 95 Bowl. H 14.5 cm. 1900–1800 BC.

Fig. 96 Kantharos. H 8.5 cm. 1900–1800 BC.

four of these which stood in the wall niche of a house; a potter made them for four children; one imagines children's hands holding them.

The villages follow one after the other without any chronological gaps or foreign architecture. Similarly, the vessels evolve from the old shapes yet have the character of the houses to

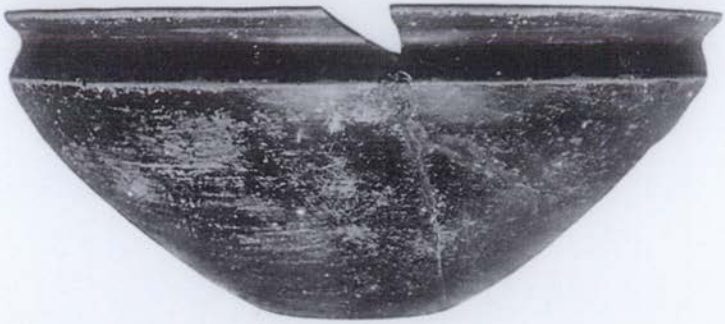


Fig. 97 Bowl. H 7.5 cm. 1900–1800 BC.

Fig. 98 Amphora, neck. H 28.3 cm. Towards 1800 BC.

Fig. 99 Amphora. H 78 cm. Towards 1800 BC.

which they belong. Is style of masonry identical with style in vessels? As the village wall grew thicker, with an outward curve, and rose up obliquely, vessel shapes were similar in their way to the village wall (Figs. 92;102) since their walls also took on a

bulge. Triangles, circles, half arcs close together, executed with a broad multiple brush, envelop the body of the vessel just as the village fortifications, consisting of two and even three walls, envelop the village houses. To reduce it to a simile: the village wall relates to the village houses as the motifs relate to the body of the vessels.

Vessels cannot be creations independent of the potter's – and his contemporaries' – awareness of his body. Forming from inside outwards, from one's own body, holds particularly true for early centuries.

The decoration on these vessels is known as 'matt-painted'. They were thought to represent a new departure and the question arose of which people brought the new technique. Did it arrive with newcomers from the North or was it local or is it even the result of blending between new and local techniques? The question of the origins of Middle Bronze Age culture has been linked with the origins of the Achaeans. The painting is not nomadic in character. Those who migrate long distances to new places to settle cannot bring forth such vessel shapes and motifs nor such painting. On the contrary, vessels made by migratory peoples tend to bear incised motifs. Vessels like Figs. 90-99 are the products of a settled people. They reveal how imaginative the early Greeks were.

It is anybody's guess why the decision was taken to change the village wall of Village VIII so radically. It was strong and seems to have been impregnable. The reason for the change is the building of Village IX (1800-1650 BC, Figs. 100-113) with a Lower Village with its own fortifications outside the main wall to the east. What was changed so that IX could be built? Old alleys were raised wherever necessary. The old rule against tearing down old walls still obtained. Only the Village

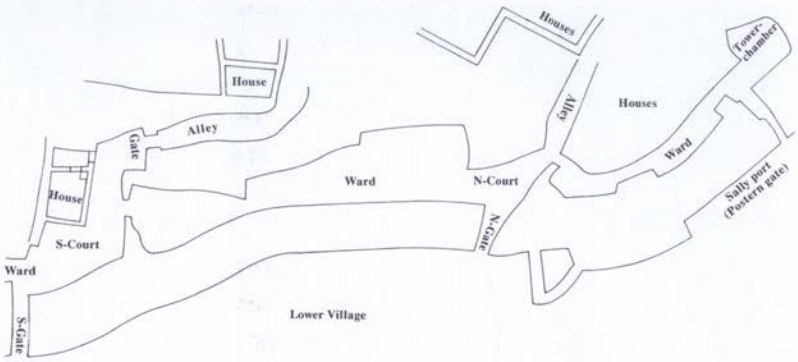


Fig. 100 Fortifications of Village IX. With the altered fortifications of VIII. 1800–1650 BC. L 75 m. From the east.

V wall (Fig. 47) was situated too low down and the larger outer ring of defences was built over it (Figs. 100;101). The outer wall of VIII became inner walls. The new outer circuit in the north was built of three elements (Fig. 102): inside there was a mudbrick wall with alternating courses of stones and bricks and on top of that timber-lacing with cross-beams in stone grooves; on them lies the rampart walk. A narrow stone wall built on it to a height of 1.20 m is the rampart. A sloping outer wall leans against it to form a talus which was not easy to climb: this is the purpose of such a wall. A mudbrick stair (Fig. 103) leads from the inside up to the rampart walk. The north court between the old and new walls developed into a junction and a passage which ended to the north in a 'tower chamber' (Fig. 100). From it the defenders could survey the north slope and, far below, the northern bay. A sally port was built into the wall from the 'tower chamber' (Figs. 102;104): a narrow passage with a small gate which was probably camouflaged on the outside with brushwood. This was the postern gate used by the

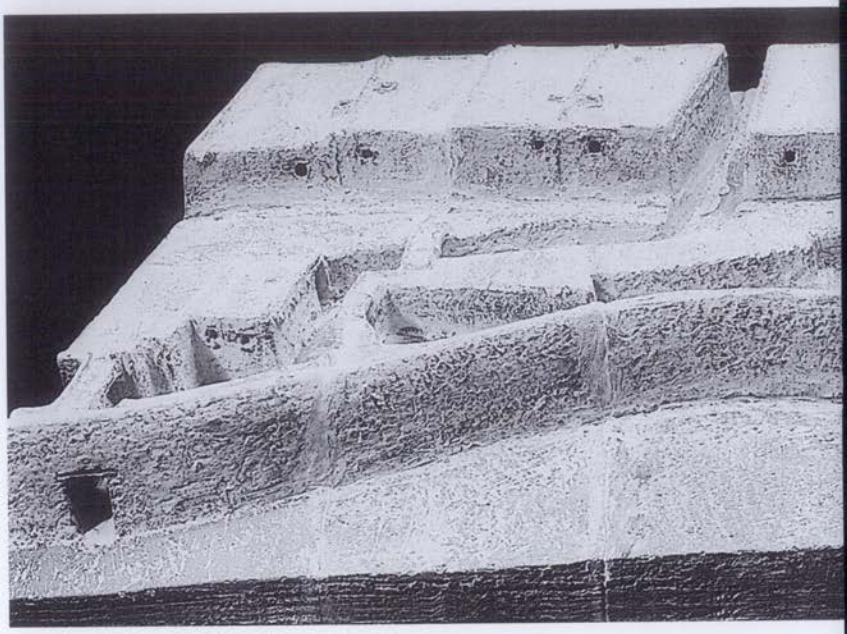
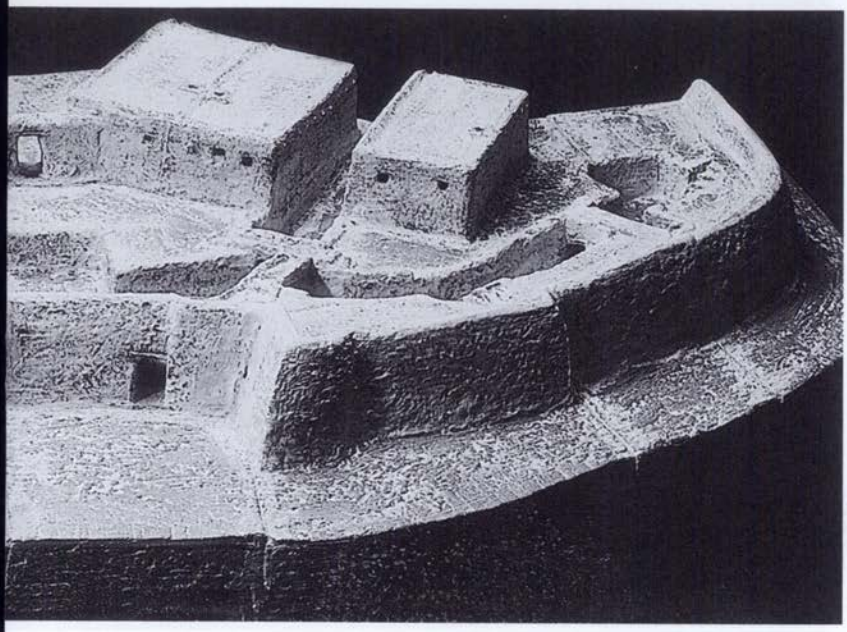


Fig. 101a Clay model of the Village IX fortificatons and houses. From the east.

Fig. 101b Wall and houses in the south. From the south.



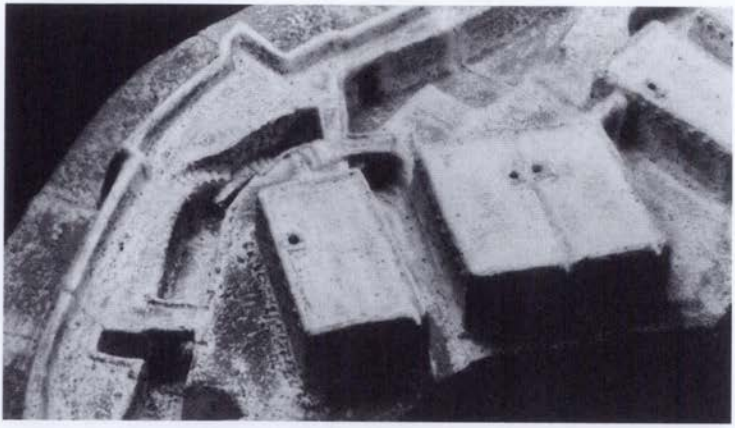


Fig. 101c Rampart walk and houses in the north. From the west.

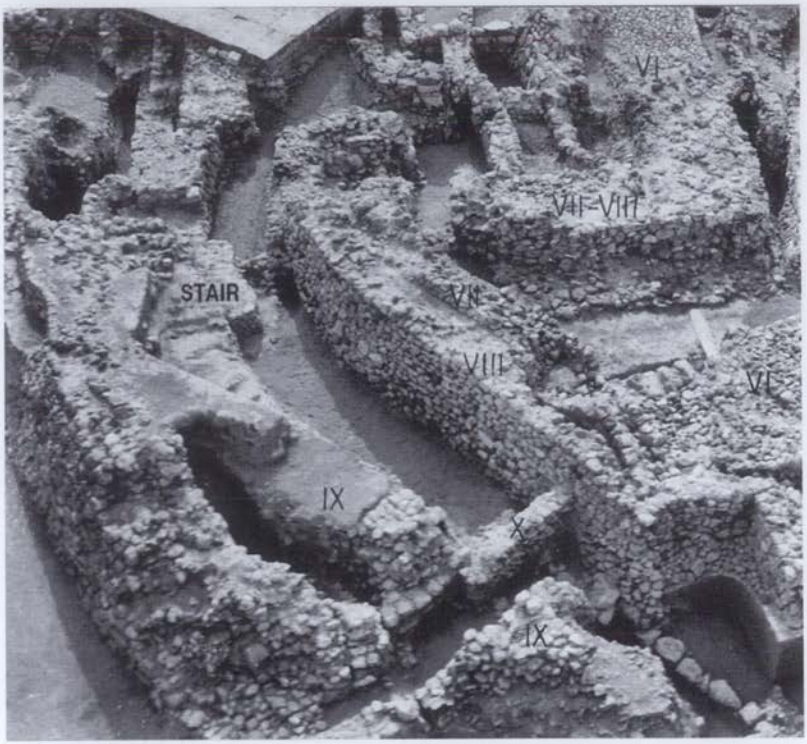


Fig. 102 View of the Village IX fortification walls in the north with the inner and outer walls, passage and sally port. Aerial photo 1974. From the north.

defenders for surprise sorties when a troop of attackers had passed the north flank and was approaching the north gate.

An outer wall leads from the north court to a south court, formed by raising the southern part, which was on a lower level. A passage was thus created which leads into the south court to form a junction (Fig. 100). From it one can go outside via an alley in the western part of the village and through a gate. When danger was imminent, the defenders could move rapidly between the walls from one court to the other, hasten-

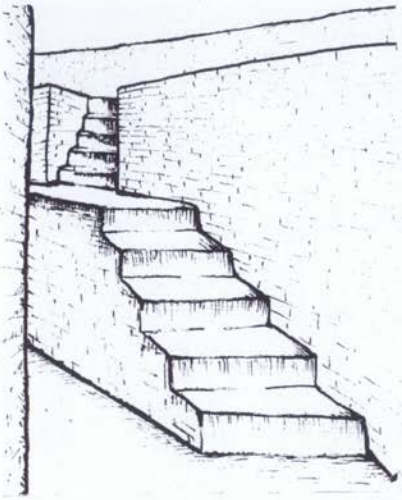


Fig. 103 Stair to the rampart walk in the north (Fig. 102). Sketch.

ing from one gate to the other and ascend the ramparts without being seen.

After the changes had been made in the fortification wall of Village VIII, work began on the construction of a Lower Village on the open village square (Figs. 7;106). Not long after 1800 BC houses with a circuit wall were already there. The Lower Village that belonged to Village IX did not assume its real configuration until the fortification wall and the houses abutting it from the inside had been built. The new wall extended to the gates in the north and south and close to the north slope (Fig. 105). The secret sally port remained outside (Fig. 104). The new fortification wall had towers with stone foundations and a mudbrick superstructure. Between them there were more towers to reduce the distance to within the range of stones discharged from catapults (Figs.106;131). Village IX had two circuits of walls to the east: the wall between the inner village and the outer one and the new Lower Village

Fig. 104 Sally port in the north. From the east.

Fig. 105 Wall at the Lower Village fortifications in the north, Archaic temenos wall of the Sanctuary. From the east.

wall. They protected the ancient village of Aegina on its eastern flank.

The house walls had been preserved in the Lower Village up to the level of the door lintels (Fig. 107); however, by 1928 only the foundations were there. Photographs (Figs. 108-109) show the inside of the Lower Village fortification wall. The rooms of the houses abut it. They follow the semicircle of the fortification wall. The houses, built of quarried stone masonry, are wide and could carry an upper storey with mudbrick walls. The house walls were whitewashed, some of them tinted or perhaps even decorated with simple linear motifs like the contemporaneous vessels. There was also a street that ran from north to south. There were some changes: in the Late Bronze

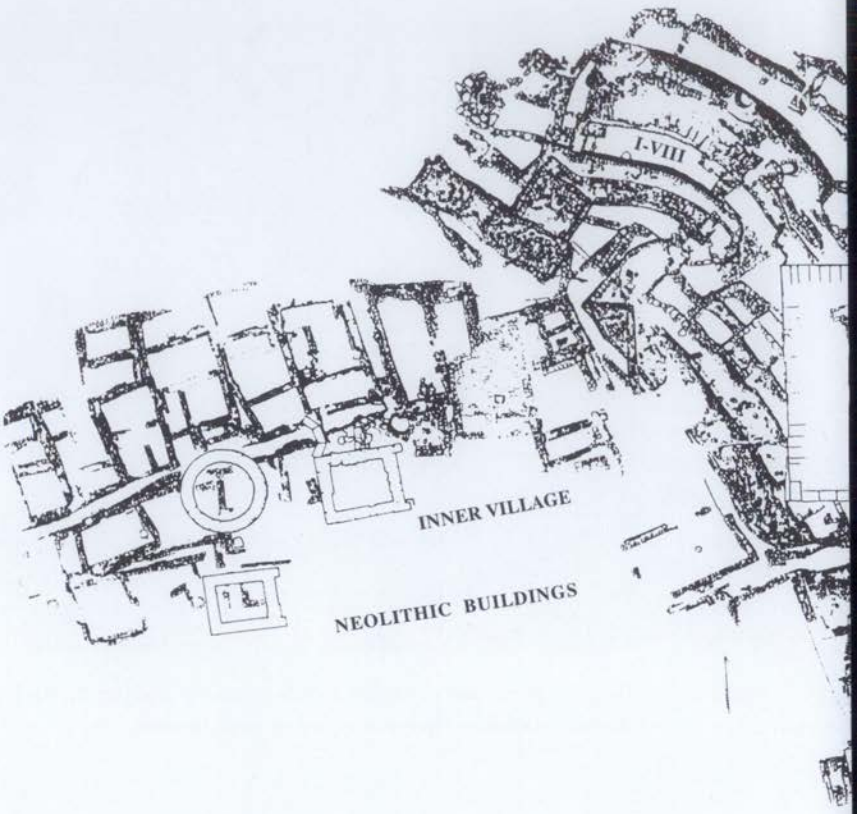
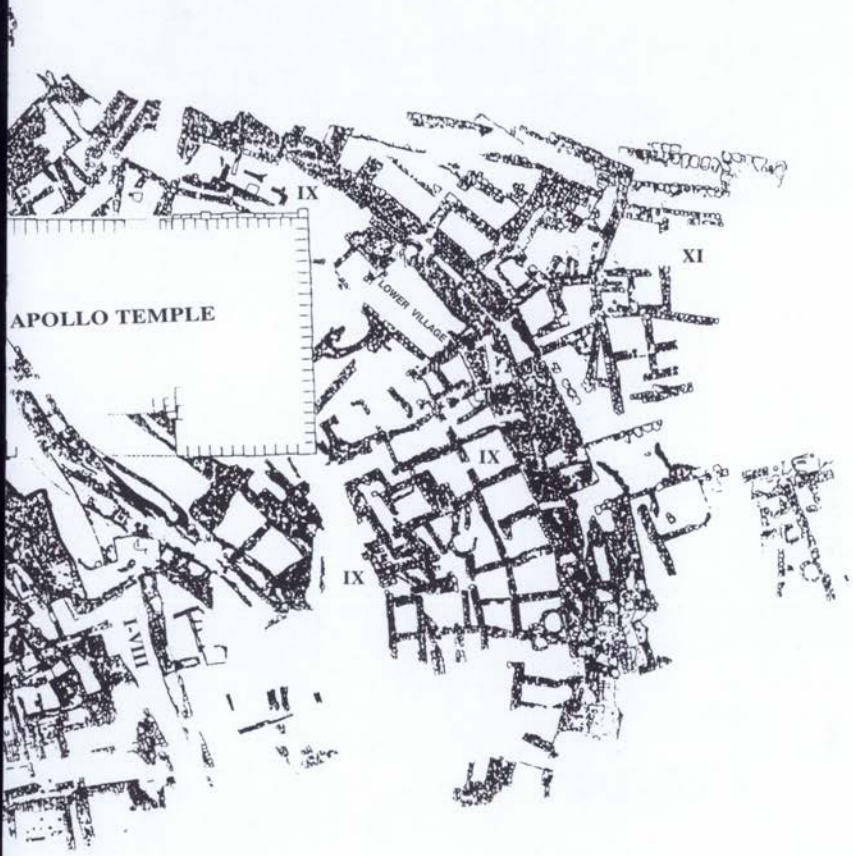


Fig. 106 General plan with the inner village and the Lower Village.


IX
APOLLO TEMPLE
LOWER VILLAGE
XI
IX
IX
I-VIII

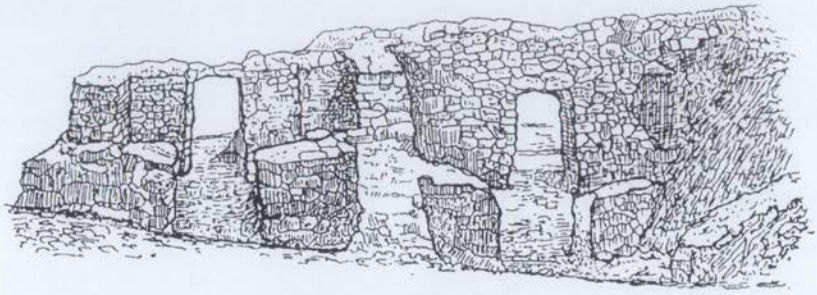


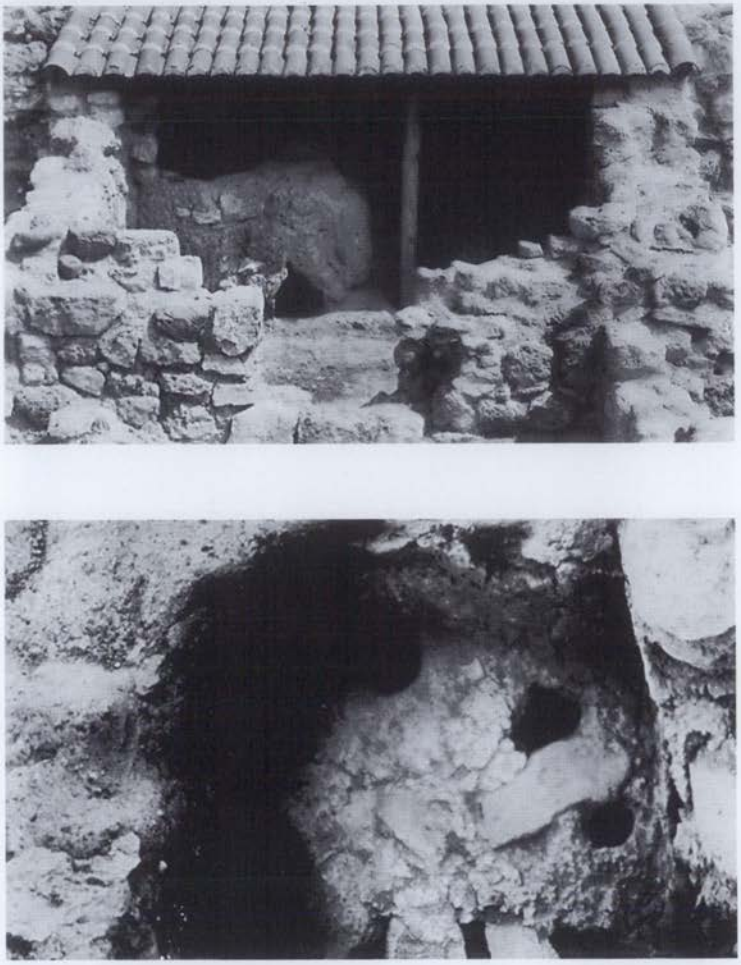
Fig. 107 Houses in the Lower Village. State in 1895.

Fig. 108 Lower Village fortifications with houses, pottery kiln (below the roof). From the west.

Age houses extended beyond the ruins in a different direction.

A potter's kiln was later built into the corner of a house on the wall (Fig. 110); the upper course of stone is missing but everything else is as it was when the kiln was still in operation. The builder of the kiln first constructed the firing chamber of sun-dried mudbrick and the heating duct of stone slabs set up to form an acute angle. Then he laid the floor of the kiln with eight holes for the fire on a stone cone at the centre, used mudbrick to build it up and covered the wall with a thick layer of fire-clay. He left one or two apertures in the upper part of

Fig. 109 Lower Village houses. During excavation. From the west.



Figs. 110a-b Pottery kiln, floor of firing chamber with holes for fire, ca 1700 BC.

the kiln wall for putting pots to be fired inside. The kiln was fired with resinous softwood which burnt for a long time, producing heat that rose to a temperature of 950° C. The smoke escaped by a vent in the corner of the room. When vessels were

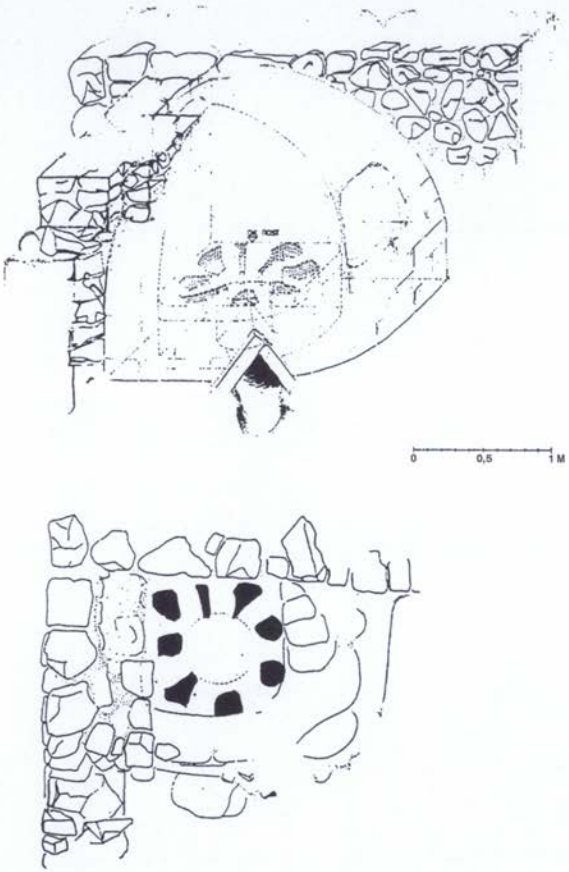


Fig. 110c Pottery kiln, reconstruction, ca 1700 BC.

piled in the kiln, with the bigger ones mouth down on the bottom, the potter lit the fire and closed all openings with stone slabs.

Before there was a kiln on this site, a child was buried in the floor in a large jar. According to ancient custom, the child was to be close to its parents, even in death. Adults were buried outside the village.

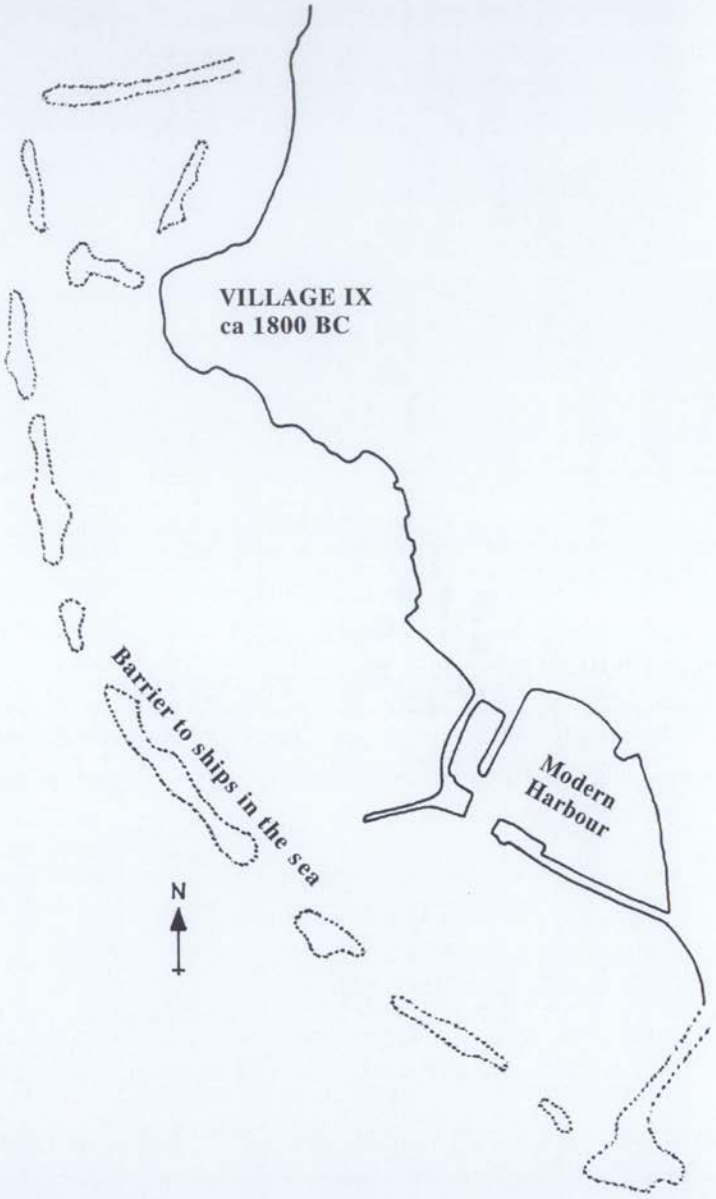


Fig. 111 Barrier to ships in the sea. 18th cent. BC.

Why a Lower Village? Had the population grown? Something must have changed in the village community. Whoever ordered the fortifications to be renewed and the Lower Village to be built cannot have been simply a 'village elder'. He was instead probably a king with all that implied in the second millennium BC. In any case he was someone who was set apart from the others and stood closer to the gods than normal mortals did.

The king, for let us continue to use the term, did another thing: he caused big and little blocks of stone to be piled up outside in the sea (Fig. 111). They are still visible when the sea is calm but only as a dark shadow below the surface of the water. What sea level was then, in about 1800 BC, can be calculated. The gaps between the stone blocks are narrow; only a local could have passed through them without damaging his boat. They were a menacing obstacle to foreign seafarers. This barrier of piled up stone not only secured the hill; it extends from the northern bay all the way to the end of the modern harbour to the south. The last piles of stones invade the shore; they were supposed to block the approach to the land from behind. A vast area was thus secured against attack from the sea. Why the land barrier? Evidently there were small settlements and hamlets which belonged to Village IX dotted about the hill and in the southern plain and they had to be protected.

Village IX was not a citadel on the scale of Mycenae, Tiryns or Gla. Its rocky hill was small but nonetheless possessed the impregnability of a village citadel. The king on Kolonna had his own house, situated in the interior of the village (Figs. 112;113). Large blocks of stone are evidence for a building between two alleys that cannot have been a house like all the others. Its situation is advantageous, protected by the two circuit walls which lie before it to the east. From it one could see

Fig. 112 The inner village, western section. Aerial photo 1974. From the north.

across all walls into the hinterland, across the bay, the plain and the open sea.

Did danger threaten from abroad which made a strong man and a new communal order necessary? It is a secret of history that there is no human history without evolution. It happened on Kolonna after 1800 BC. The people within the village, on the hill and in the environs of the village were from then on under the protection of a king. However, his power was not absolute. He was not a ruler over a subjugated people.

There was a feeling of solidarity among the people and with the king. Their cares had become his. They viewed him as a person close to the gods. He will have had privileges: probably the right to game. In the earlier Stone Age people had the right by natural law to the animals which they followed on their migrations and they killed animals when necessary for food. Hunting animals was not sport.

In the 18th century BC, in the era of Village IX, vessel types remained the same as they had been: there was the storage jar, the jug, the kantharos, the cup and the bowl, both big and small vessels (Figs. 114-121). Some of the old motifs also persisted: triangles strung on a strip, lines arranged concentrically at angles to form triangles, dots. What is different is their arrangement on the vessel and that is what matters. This is a new departure. Potters have freed vessels from the dense patterns, the carpet-like splendour that enveloped them, thus returning pure form to jugs. The body of the vessels shows up strongly because the ground is light-coloured. Thin brush strokes add a stringent linearity. On an older storage jar (Fig. 114) the lines have been drawn stringently yet very freely. On the more recent of the large vessels (Fig. 115) the circles and zigzag linear motifs float free to give the shape scope for development. There is also scope for development where the motifs are. This freedom in turn has created the conditions necessary for pictorial representation. Indeed four rowing boats with high, curving bows surround the body of the storage jar in Fig. 116; there are two masts across which a cloth has been drawn taut as a sail to catch the wind. The crew sit in closely packed rows; the men are tiny but depicted actually rowing. Circles, half arcs and triangles accompany the pictorial representation unobtrusively. A magnificent vessel, unusual both in shape and pictorial representation. The people of Aegina did go to sea; that was part of their way of life. Nevertheless, the representation in Fig. 117 is astonishing: a boat in which men are seated with oars and upright lances while the helmsman is at the stern.

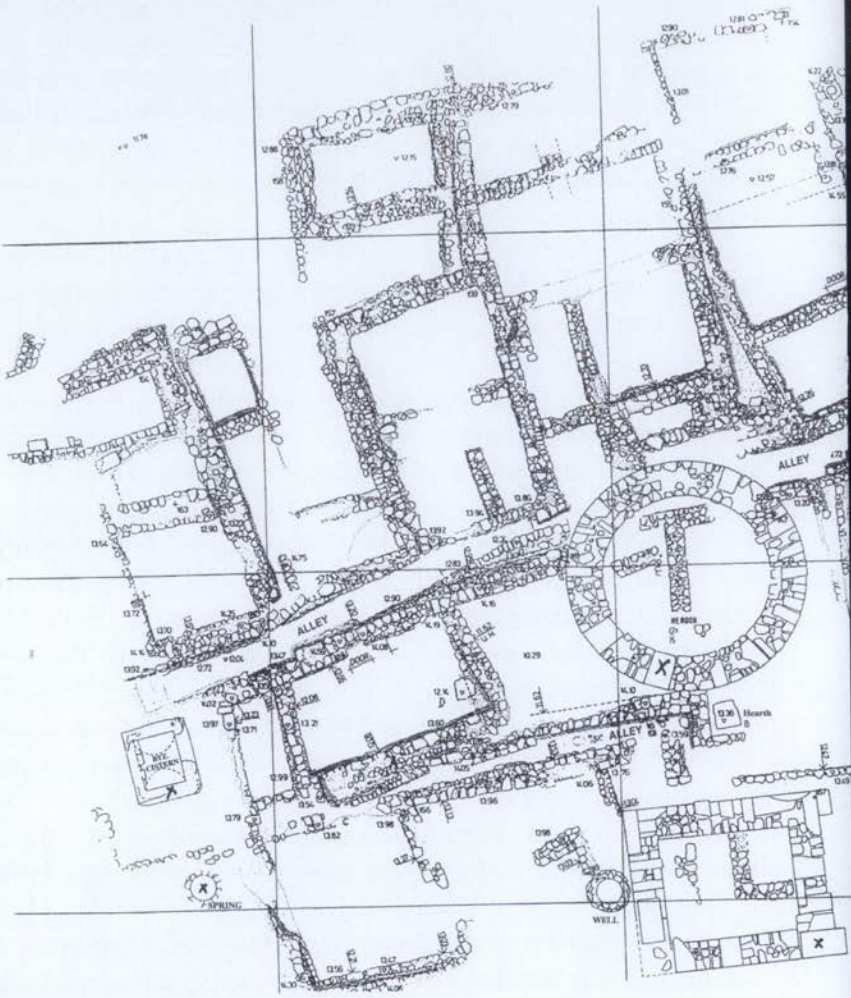
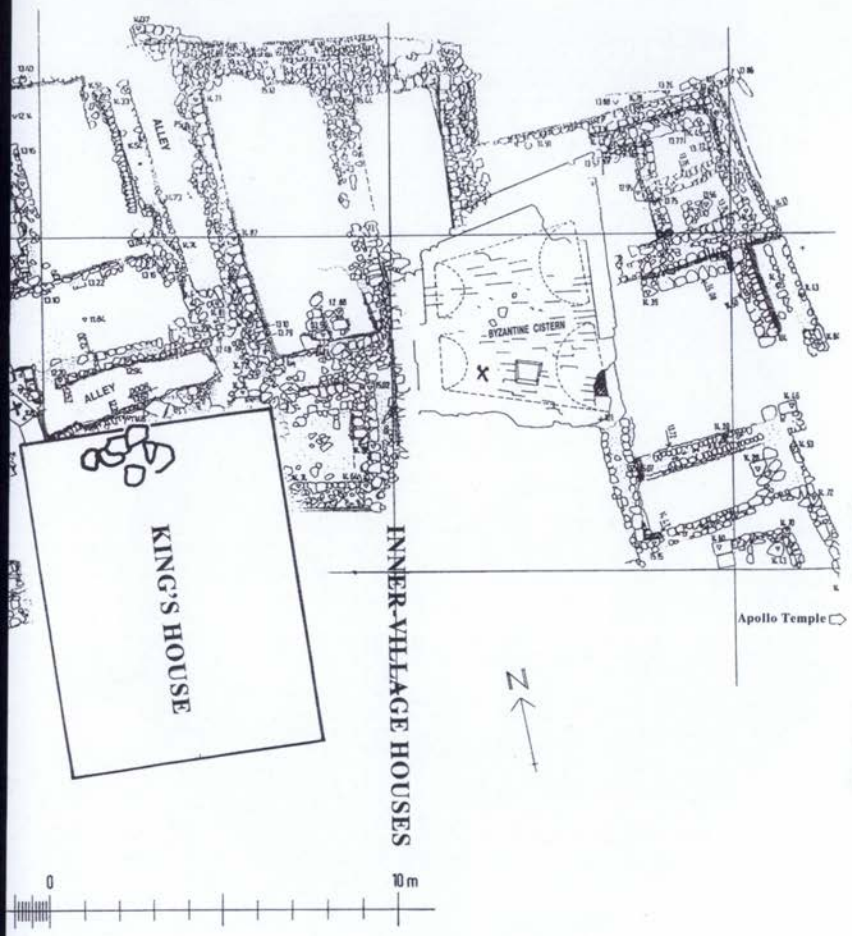


Fig. 113 The inner villages in the west with the King's House.


ALLEY
ALLEY
BYZANTINE CISTERN
KING'S HOUSE
INNER-VILLAGE HOUSES
Apollo Temple
N
0
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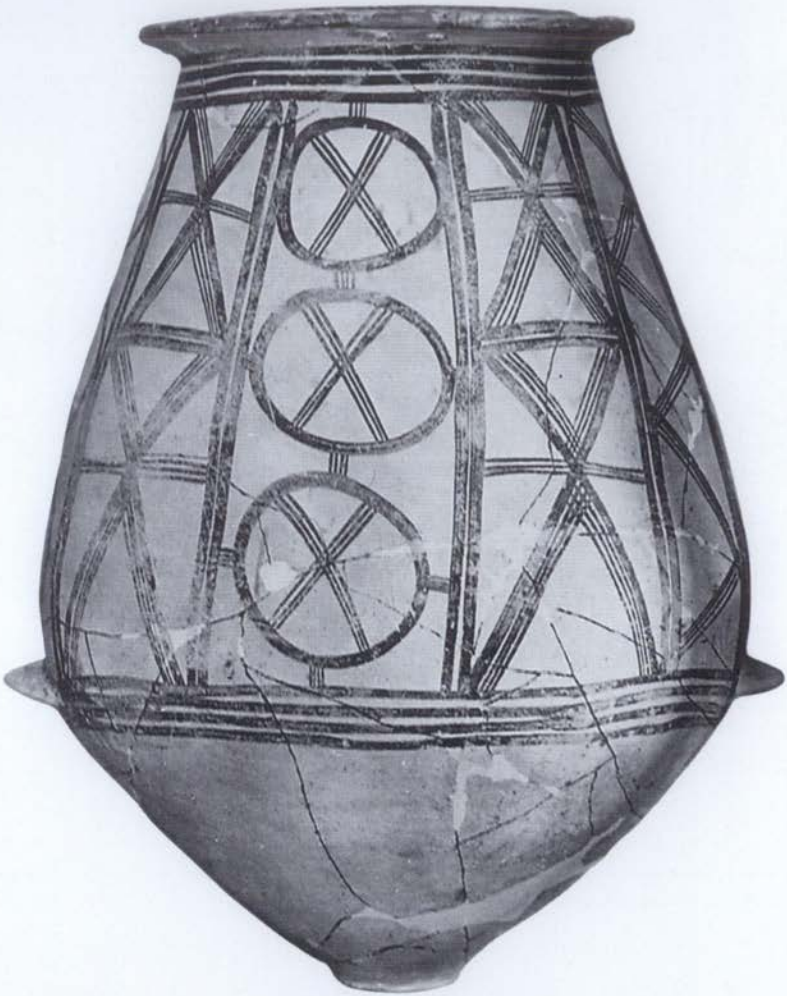


Fig. 114 Pithos. H 105.5 cm. 18th cent. BC.

The heads of the mariners are represented by big circles, their bodies look like sticks; but this is less interesting than the objects the men are holding; oars and lances characterize the

Fig. 115 Pithos. H 86 cm. Ca 1700 BC.

men as both seafarers and warriors. The men of Aegina were both in those early times. Then there is a figure without a name and purpose, standing on a fish, probably a dolphin (Fig. 118).

Fig. 116 Pithos. Four ships with crew. H 77.5 cm. 18th cent. BC.

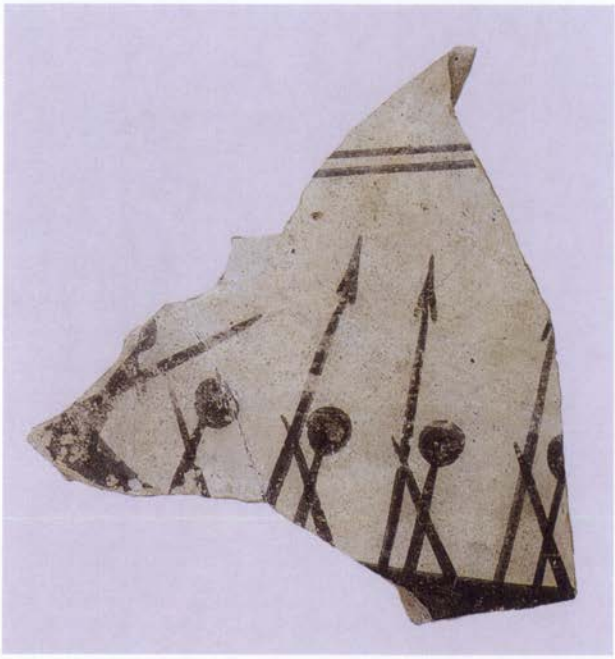


Fig. 117 Pithos. Ship, men with oars and lances, helmsman on the left. H. 16.2 cm. 18th cent. BC.

Weightier than the figure's body is its urgent gestural language. Who can tell whether this is a divine being or a mortal propitiating a deity?

Ships are also known on vessels from other areas. Nevertheless, the ships and their crews on the pottery from Aegina are not only unusual; the objectivity with which they are rendered is astonishing at such an early date. The ships (Fig. 116) are rowing boats built with a lofty prow and a keel, with a rudder for steering, 'swift as the wind' when sailing on the open sea.

Fig. 118 Pithos. Man on a dolphin. H 22.2 cm. 18th cent. BC.

Below the sail the crew sit in rows and beat the brine with their oars. In the other ship (Fig. 117), only a fragment, the helmsman is holding the rudder, the crew grasp oars and lances, the tools of the seafarer who is also a warrior. This ship too should be thought of as on the sea and in motion. This early age knew nothing as yet of how to depict states of being and this was one and a half millennia before Homer, who knew no figures at rest and in whose work depicting states of being represents the rare exception. The warrior in the *Iliad* is seated yet not depicted as sitting; he is ready for action.

Looking at these ships one thinks of Odysseus, who goes into the forest, fells good, mature wood and builds his raft with tools like a carpenter (*Odyssey* V, 234).

Vessels – pithoi, jugs, kantharoi, cups and all the other shapes – have now been divested of the dense patterns of the previous era. This is a new style. Yet style is not just form, which follows the times. A potter takes the use to which a vessel will be put as his point of departure. The jug, for instance, is a container for liquids, its mouth is the spout and it must be wide like a beak. The style of a vessel consists in both purpose and shape.

Moreover, the ornaments are not just dropped arbitrarily about the vesssel. Ornamental panels follow the articulation of the vessel itself. On jug (Figs. 119;120) rings are at the shoulder, where the body joins the neck. The articulation of kantharoi (Figs. 121; 122) determines the panel for the ornament. The cup (Fig. 123) affords the most pronounced curve.

These shapes are not fortuitous nor are the ornaments where they are by chance. The sense of where things properly belong is astonishing at this early date. These are fine lines which have been painted. A network of lines covers pithoi; only the foot, which was stuck into the ground, is without them. And yet this is more than just a network of lines which has been drawn on the pithos. The vertical lines especially have the function of holding the body of the vessel together. The bodies of such vessels are light and clear.

The lines and circles on them have often been called geometric patterns like the circles and the various forms of meander and linear motifs on the Geometric vessel of the tenth and ninth centuries BC. But the lines and circles in the Geometric period have a dynamic of their own; they help to generate the metope panel. They can also appear in the panel as circles and meanders and they help to carry the body of the vessel. Ornaments of the eighteenth century BC do not have a tectonic function but tend rather to unify the body of the vessel.

Fig. 119 Jug. H 26 cm. 18th cent. BC.

There are transitions from one period to the next, a terminal phase to make room for the shapes of a new period. The cup in Fig. 124 represents just such a critical juncture.

The development is not linear without hitches. Every period can be pictured as a circle. The circle begins and closes at the end of a period. Like the life of a human being. Every period is a system in itself, even if it is followed by the next without a gap. The process is an inner one, independent of external events. This is so because the question arises: wherein lies the connection of a vessel with the decoration at an adduceable date in history?

Fig. 120 Jug. H 20 cm. 18th cent. BC.

When one surveys just the pottery from Aegina between the very late Neolithic to the close of the Middle Bronze Age, taking those few shown here as representative of an enormous number of vessels, and vessels of high quality, one not only discerns the logic of a development. These vessels possess a driving impulse which looks forwards to the centuries to come. A driving impulse which never ceases to generate development.

Fig. 121 Kantharos. H 8.5 cm. 18th cent. BC.

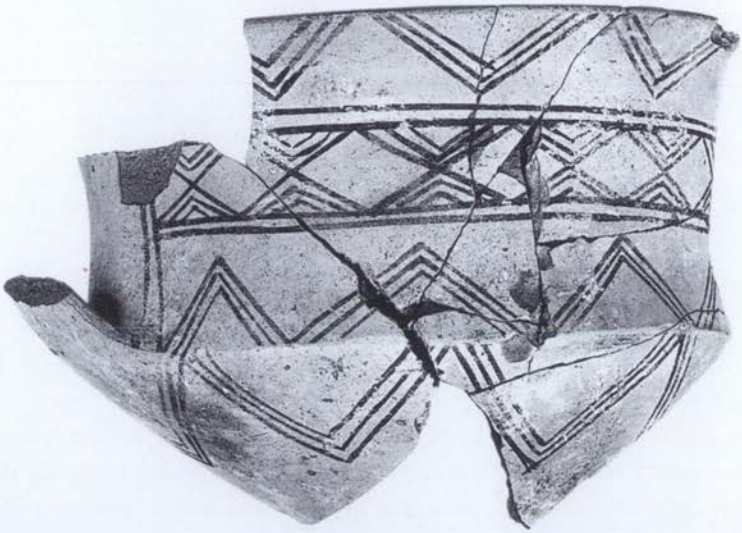


Fig. 122 Kantharos. H 12.5 cm. 18th cent. BC.

Fig. 123 Cup. H 9.6 cm. 18th cent. BC.

Fig. 124 Cup. H 9.6 cm. Towards 1700 BC.

Fig. 125 Cycladic askos. H 14 cm. 2000-1900 BC.

Fig. 126 Parian jug. H 23.7 cm. 18th cent. BC.

Fig. 127 Parian jug. H 48 cm. 18th cent. BC.

This is a Greek phenomenon which is already recognisable in the third and second millennia BC.

The people of Aegina are islanders and as such receptive to the world around them. Early on vessels, exemplified by the askos (Fig.125), which is shaped like a squatting duck, came into the village from the Cycladic islands. However, imports from island potteries now increase. Parian and Melian potters send their wares to Aegina (Figs. 126-128): the lines and arcs painted on them, their reddish yellow clay and compactness of form are unmistakably Parian. Trade with the Cretans also

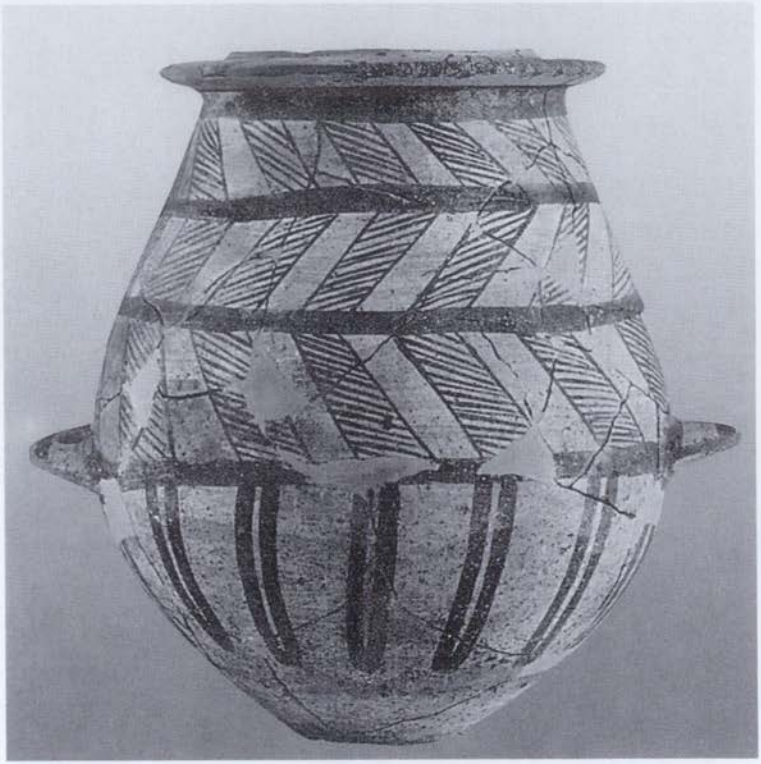


Fig. 128 Parian pithos. H 49 cm. 18th cent. BC.

underwent an upturn: the jar in Fig. 129, with its gentle, colourful motifs, exemplifies the Cretan style of the first half of the eighteenth century BC. The potters on Aegina could not help but be influenced by such wares and imitated them. They must certainly have been requested to do so by the kings on Kolonna, who prized these foreign vessels as valuable because they enhanced the standing of their house.

During this same eighteenth century the fortified village ruled by a king was also a maritime power. If there actually was an all-embracing 'Mycenaean Empire', which I do not believe:

Fig. 129 Cretan amphora. H 47 cm. 18th cent. BC.

ancient Aegina, a fortified village with a king, did not belong to it.

It must have been about 1700 BC when an onslaught on the village took place. A man who fell before the gates lies in a grave (Figs. 130;131; 1 x 2.60 m) which was dug for him at the village wall. When the sun's rays fell on the stones and earth, the village wall, the inner wall and the mound of earth over the grave were discernible. The slain man was young, probably about twenty-three, about 1.72 m tall and of sturdy build. His

Fig. 130 King's Grave at the south gate. From the east. Towards 1700 BC.

right hand is noticeably strong and muscular; this was the hand with which he held his sword, thrust with his lance and pulled taut the strings of his bow. His family laid him down with his back on the smoothed bedrock, his thighs slightly flexed. A wooden blanket protected the space above his body. All his weapons were put with him in his grave and laid before him on the bedrock. They are precious bronze weapons (Fig. 132): his sword with its ivory pommel (Fig. 133), a dagger, a hunting knife, a short knife (Fig. 135), a magnificently showy knife with the gold heads of a powerful, aggressive boar and a gold ferrule at the end of the handle (Fig. 134), his lance, six obsidian arrowheads and about 80 boar's tusks from his helmet, which was of a type worn by warriors during this particular century (Fig. 136). The weapons had wooden handles and the lance a wooden shaft, all of them vanished in the dry soil.

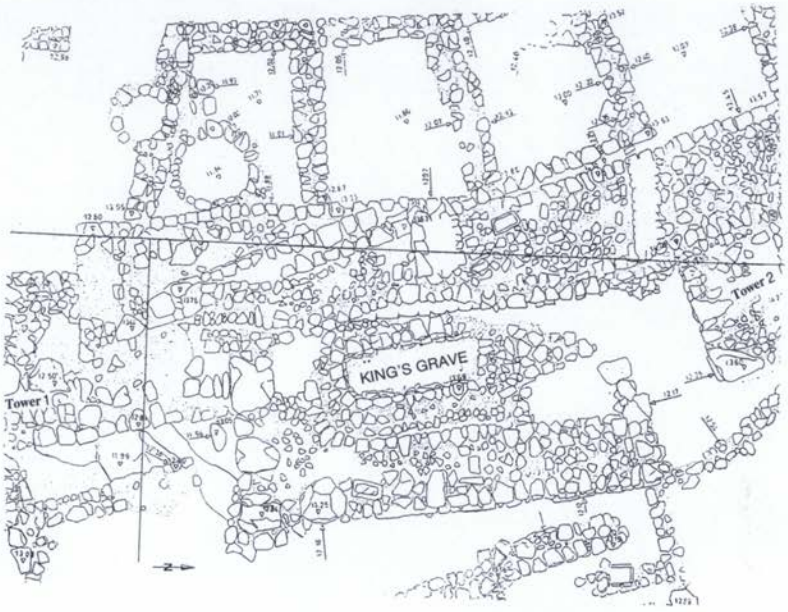


Fig. 131 Stone plan at the south gate with the King's Grave.

On his breast lay a gold diadem which he once wore on his forehead. In the corner of the grave, at the feet of the dead man, lay broken local, Cycladic and Cretan vessels with which the libations were poured at the funerary rites.

The dead man was not an ordinary warrior; he was the king of Kolonna, who fell leading his men in defending the village, a descendant of the man who had founded the dynasty, built the fortified Village IX and commanded the building of the breakwater in the sea as a barrier to prevent access to the land. His grave lies in an exposed place, at the fortification wall by the south gate (Figs. 130;131), where people went in and out. It was surrounded by an oval bastion round the walls of the grave, which also reinforced the gate.

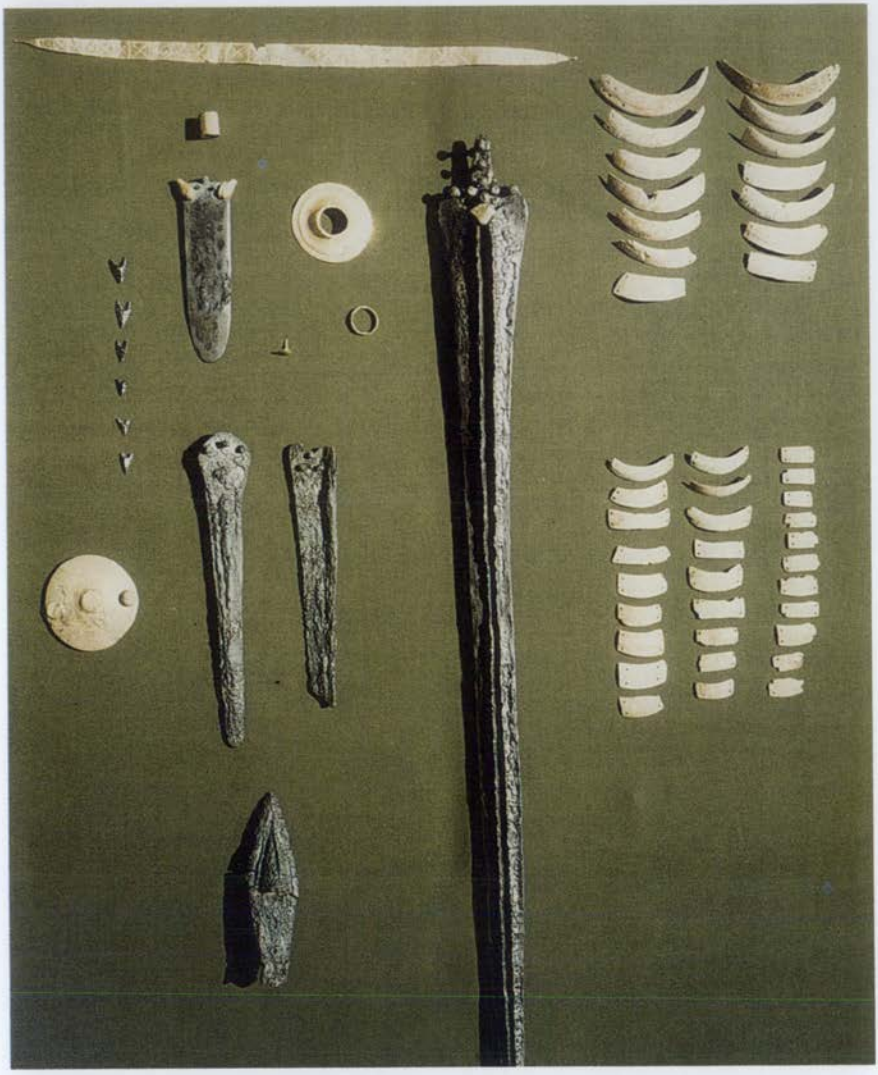


Fig. 132 Diadem approx 45 cm; bronze sword, blade 79.2 cm; gold disc-shaped pommel guard, ring, nail; bronze dagger with gold boars' heads and ferrule; bronze daggers 24.5 and 20.8 cm; spearhead 15.2 cm; boars' tusks; ivory knop on the crest of a helmet 7.2 cm.

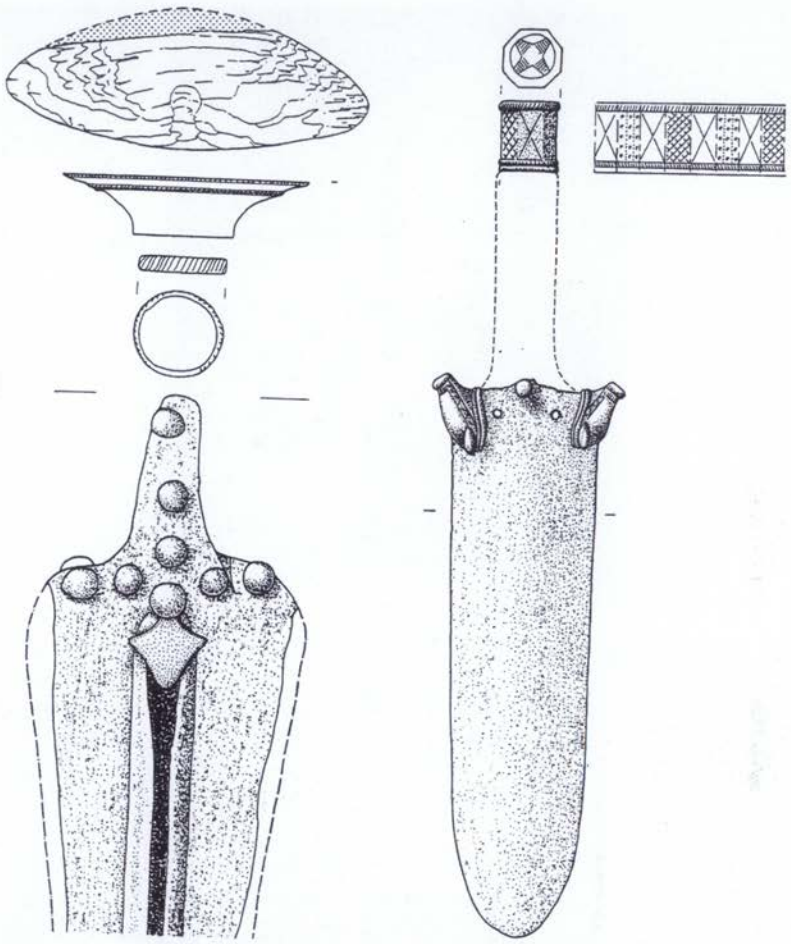


Fig. 133 Bronze sword. Length of blade 79.2 cm.
Fig. 134 Bronze dagger. L 14.3 cm, with two gold boars' heads and gold ferrule terminating the handle.

Fig. 135 Bronze knife. L 12.7 cm.

Fig. 136 Ivory head with boars' tusk helmet. From a chamber tomb at Mycenae. Athens Nat. Mus. H 8 cm. 13th cent. BC.

No wounds were visible on him which would have caused his death. Old, healed wounds were diagnosed. However, the dead man's shins were missing. Was the grave damaged and did the limbs remain outside it when the damage was repaired? It should be mentioned, even though it does not apply to this dead man: the belief existed that the corpses of people who, like heroes, had been influential in life, retained powers beyond the confines of the grave and could return to haunt the living. To prevent this, their limbs were removed. The most famous dead hero to whom this happened was Agamemnon, whom Clytaemnestra, his widow, caused to be mutilated so

that his ghost would not return. In the Aeschylean tragedy the *'Choephoroi'* ('Libation Bearers'), the Chorus proclaims openly before Electra and her brother Orestes: 'He was mutilated, learn this too! She who buried him, she did it.' But why should such a thing happen to the dead young man of Kolonna? He was one of them, not a foreign prince. His influence could only have been beneficial. Perhaps he lost both legs below the knee in battle? His grave on the village wall was a place of veneration. Mention should be made of the fact that the royal grave on Aegina is earlier than the famous Shaft Graves of the rulers of Mycenae.

The onslaught on the Lower Village did not spell the end of Village IX. Ancient Aegina continued to exist as Village X (1650-1600 BC). The damage done was repaired, some changes were made in the gates, the intervals between the towers were equalized and strengthened. A retaining wall with an earthwork slope or talus leans on the existing one (Fig. 137); the north entrance was secured more strongly. When the pervasive morning light shines on the earthwork slope, making the brown and white limestone glow and the outlines of the stones stand out clearly on the surface of the wall, two seams show up which taper upwards. Building of the wall started at this triangle, which determined how the courses were laid and how thick the wall would be. A piece of wall from which the masons started out before they laid the rounded segment towards the gate and the westward bulge to the north of it.

Pottery has changed. A basket-shaped vessel and a spouted bowl (Figs. 138;139) are, like other pots, late pieces as far as design is concerned: trelliswork, broadly reticulated and elongated arcs belong to the future; on some vessels they appear in free curves. After four centuries the style has lived out its time. In its decline, the groundwork has been laid for new motifs and shapes. Wavy lines and indeterminate arcs of circles are forward-looking.

Fig. 137 Fortification wall of Village X in the north. From the east. Ca 1650 BC.

During the middle of the second millennium, towards 1600 BC, the last village, Village XI, extended across the whole surface of the hill on the old walls. From then on there was no Lower Village. A fortification wall which also reached far out to the east surrounded the entire village. Since the houses still jutted out, most of the buildings had to yield to the Apollo Sanctuary. In the eastern part of the hill, before the gates of the earlier Lower Village fortification, the foundation walls of the houses which were lower down were spared (Fig. 106). An impressive segment of the fortification wall still stands in the north-east (Fig. 140). These are not blocks of stone that weight

Fig. 138 Basket-shaped vessel. L 13 cm. ca 1650 BC.

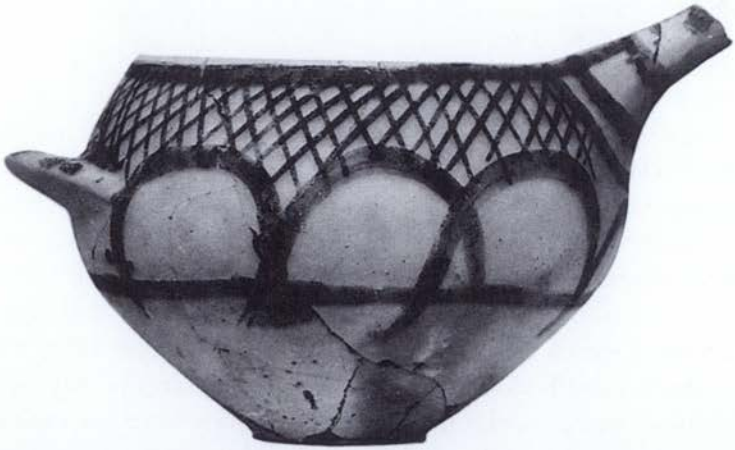


Fig. 139 Spouted bowl. H 25 cm. ca 1650 BC.

Fig. 140 Fortification wall of Village XI (tower) in the north-east. From the north. 16th cent. BC.

each other down like those on the citadel of Tiryns, where 'gigantic Cyclops came and built the wall ...' (Bacchylides). Nevertheless they are large, even massive stones which it took the hands of several men to lift and lay. Small stones fill the interstices of the masonry. The fortification wall is not very carefully built but is stronger than the earlier village walls (Figs. 87-89); although smaller than the walls at Tiryns and Mycenae, it still conveys the impression of being 'Cyclopean' masonry, belonging to a village which in fact was a fortified village. The kings who built the last fortified village and ruled it must have been powerful. The village was reconstructed three times, whether entirely or in part cannot be discussed here. They buried their dead outside, on 'windmill hill' across from the village.

Fig. 141 Drinking vessel.
H 22 cm. 15th cent. BC.

Fig. 142 Cup. H 8 cm.
Ca 1350 BC.

Countless numbers of jugs, albeit broken ones, indicate that this was a fortified village that was both populous and engaged in active trade. An era had ended and, with it, the old vessel shapes and motifs. Beakers with both low and high feet, jugs with a new type of spout (Figs. 141-143), amphorae with four

Fig. 143 Jug. H 26 cm. 1500–1450 BC.

lugs on the shoulder now exemplify pottery types. New shapes call for new motifs. The spiral is only one of many. Even the colour of the clay has changed. Evidently clay with a greenish tinge was no longer considered desirable so pots were fired at higher temperatures. This caused the greenish clay, which is available throughout the island, to lose its colour in the kiln, becoming harder and yellowish and reddish ochre although it was still the same local clay. Behind these new shapes and their motifs was the will of the citadel rulers.

As early as half a century previously Cretan vessels had been coming to the island, inspiring local potters to emulate them. The potters on Aegina were receptive to Cretan shapes and motifs. The subject matter of representational motifs had been diverse since mid-century on Crete. These are pictures

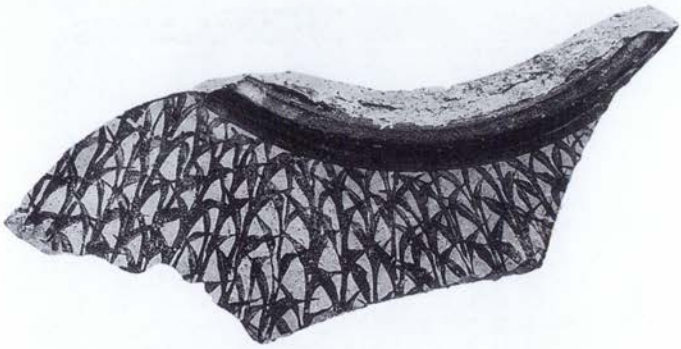


Fig. 144 Sherd from a Cretan jug. W 8 cm. Ca 1500 BC.

Fig. 145 Cretan jug from Phaistos. Heraklion Museum. H 23 cm. Ca 1500 BC.

Fig. 146 Cretan stirrup jar with octopus. H 22 cm. 1500–1450 BC.

taken from nature, more specifically the sea: the Autumnal Crocus, which produces saffron, spring crocuses, long-stemmed lilies growing up from the ground, birds and octopuses writhing amongst corals, marine molluscs, starfish and sea urchins. Both glowing and subdued, the blues, reds and shades of white are simply magnificent by anyone's standards. The Cretans were not touched by the Bronze Age attitudes that governed the people of Aegina and the Greek mainland. Take the splendid jug (Fig. 145) which is veiled in a thicket of grasses; just such a jug (Fig. 144) came from Crete to Kolonna and broke there. And the stirrup jar with a multi-tentacled octopus (Fig. 146): was it made by a Cretan potter or a potter from Aegina? The tentacles of the marine cephalopod are laid about the vessel as if by the motion of softly lapping waves. Here the hand of a Cretan potter is discernible. Inspired by such work, local potters on Aegina were

eager to take up the challenge offered by Cretan motifs. However, it was, in the last instance, the will of the ruler on the citadel, who commissioned such work to lend brilliance to life in the fortified village and thus enhance his own reputation.

Late second millennium on Kolonna. After two millennia of ancient Aegina on the hill, its time was past; now the fortified village no longer exists. Its walls have crumbled and the inhabitants have gone.

Above the land and above the sea the little rocky promontory rises with the ruins of the villages at its highest point. A long history has unrolled on it even though no poet sang of the rocky promontory on Aegina as Homer sang of the Mound of Hisarlik. The stubborn will of people to cling through thick and thin to a spot of ground once they had settled there, their struggle to preserve a way of life, all this is in itself the matter of living history. For about two millennia people lived on the hill from the days in the Stone Age when people first came to Kolonna until the day towards the end of the second millennium BC when they abandoned the rocky hill and withdrew into the hinterland and into the southern shore zone where today the city of Aegina is situated. There life has gone on; on the hill everything grew quiet.

The village community was no more. But Kolonna remained a small place of pilgrimage for the people who had once lived on the hill. In the end it was a well in Village XI which gave water for the rites celebrating a deity whose name is not known. A few metres from it, they dug a new well in the tenth century BC. Its waters served the cult of Apollo. People gathered at this spot to observe the rites. The link with the place also represented the ties that bound the people of Kolonna to one another.

If our glance leaves the plans, models and representations of the villages for the terrain itself – do views of a ruin taken

from a great height give the correct picture? The walls show up with exaggerated emphasis but these views are purely two-dimensional ones. The inhabitants of the village did not see it thus; they always saw it at eye level. Even when I view it from half-way up, the village looks to me like a jumbled mass of walls, alleys, squares; houses thrown together as if fortuitously. The tangle becomes easier for me to decipher when I recognize one or two houses, for instance, the walls of the 'White House' or the 'smithy' with its high, domed roof. Once I've picked them out the rest of the houses are no longer unfamiliar. A network of relationships between the houses and the alleys emerges. Anyone who wants to see the people of Kolonna up close must start at the core of the village, follow the alleys, walk up to the doors of the houses, go from the houses to the gates in the village wall: thus I begin to grasp the walls, the courses of the streets and the nooks and crannies, why everything is as it is and not different. And if I can put the crockery back into the houses, into the rooms from which excavation has removed it, the ruins become a living organism for me and I encounter the people who have lived in them, even though they are no longer there.

The villages were not built one on top of the other for lack of space. With each successive village the same village arose and walls even reach into the masonry of earlier villages, sometimes even down to bedrock. So closely linked were these people with their forebears down through the centuries.

The villages on the hill have many faces yet these are only different expressions of one and the same face which has formed the distinctive character of the people and the place – a place which retained its basic shape down throughout the centuries, the place which was the village that belonged to the people of ancient Aegina. The shape is that of a powerful bull, whose recumbent body, facing west to subsume the houses, and his head with its pronounced forehead and protuberant,

half-shut eyes – which is what the two gates remind one of – are braced against the east, where the greatest menace lurks.

Yet one more image, one which goes inward: houses built closely together, supporting each other across alleys, a peaceful and secure place, surrounded by a stout circuit of walls: like an eagle's eyrie, built on a rocky hill.

In the products made here, the pottery, the implements and utensils, in the type of masonry built, one senses most clearly people's hands. Do I also recognize them in the way the village is laid out? This depends on the vantage point from which I view a village and a ruin. Isometric plans reproduce the village walls and houses from an external viewpoint. However, this is also the viewpoint of the attacker and later observer, not that of the masons who built the walls and the inhabitants of the villages because they only knew the surface of the rock and the possibilities for defending it and know how favourable the position of the village was. Anyone who wants to understand the courses of the walls has to think from inside – just as the people who lived here did when they built the village – from the houses and alleys. 'Building from the village outwards' means laying a shield of wall round the houses and the inhabitants' bodies, like a warrior, who binds armour about his body and holds his shield before him as protection when he goes into battle.

Many paths lead from the gates into the hinterland, to the fields and down to the sea. A narrow, ancient, well trodden path ascends from the north slope, probably in several turns and bends. Guided by the gentle curve of the wall, the villager turned into his village (Fig. 147).

The people and villages of the era before written records are called as follows: primeval, prehistoric people and villages. But when does human history begin? Certainly when man emerges. Traces of him are the documents of his having lived.

Four thousand years separate us from the people in ancient Aegina. When they lived all the things that happen in life, all events such as birth and death, health and illness, joy and sorrow, the light of the day and the dark of night, the summer heat and the winter cold, the change of the seasons were experienced more keenly in the immediacy of nature. Man lived with nature and the animals and not against them. Believing that life was harder then is merely prejudice; instead it focused on essentials. Conceptions of time and space have changed. By now man is on his way to the stars in cosmic space. A new reality seems to have replaced the old order. But what is this new reality in human life? The basic needs and hardships have remained; on the contrary, diseases and suffering, fears and cares, natural disasters have not lessened. Today the boundaries between technical 'progress' and the present overabundance, at least in a small part of the world, seem to have become blurred. And all these things have made man indifferent.

The ruins of the villages on Kolonna Hill leave us with nostalgia for the lost unity of man and nature. This is not meant to awaken yearning for a lost world. Recalling it to present consciousness can only represent a call for living together with one's fellow man and nature. Kolonna Hill is also a contemplative place, of meditation on the origins of life, when everything began.

A visitor to the hill once asked me: 'Why are you excavating here?' A good question which is difficult to answer. I tried to give an answer. This book, I think, represents a more detailed answer than I was able to give then.

All excavations are alike when they are carried out by the usual, standard method with demarcated quadrants laid out according to a plan. Ancient Aegina is not accessible via this method; it did not lead to results because the villages are too entangled. Method is a bridge, a means, not an end and the means is determined by the ruins themselves. Perhaps it was

Fig. 147 Village wall in the north of Village X with path to entrance. Pencil drawing by Karl Korab, Vienna 1982.

simply instinct which urged that excavation should begin at the west foundation of the Apollo Temple (Fig. 148). This also meant starting at the most difficult place. Houses from ten villages and six village walls lay one above the other, built into each other. The task was to disentangle them. In order to achieve this it was necessary to deal all at once with an excavation area covering about eighty square metres extending across the entire breadth of the hill and to a depth of about thirty metres.

Excavation is a spiritual and intellectual as well as a manual activity which has a great deal to do with a countryman's feeling for the soil. Excavation goes from top to bottom but one always has to think from bottom to top, from bedrock; walls

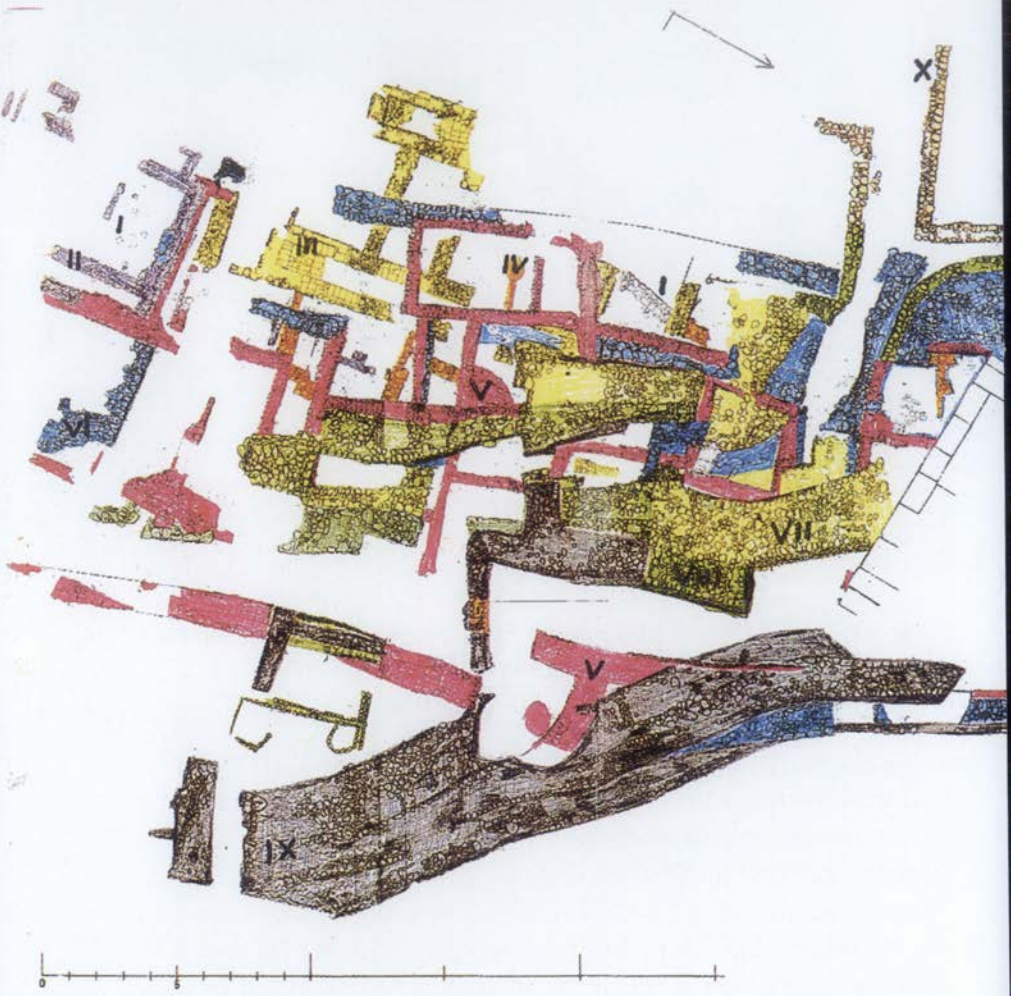
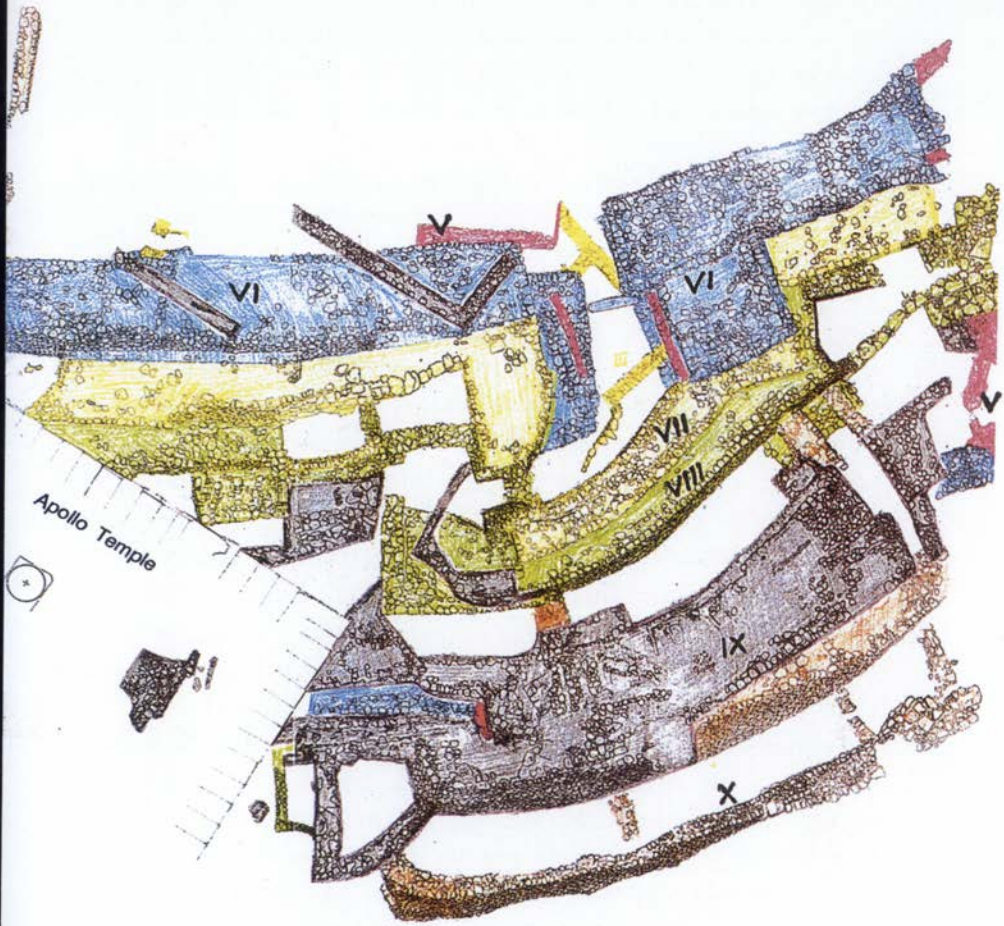


Fig. 148 Stone plan of Village walls and Houses I–IX. Below the western foundation of the Apollo Temple.


V
VI
VI
V
VII
VIII
Apollo Temple
IX
X

lying far away as well as walls which are not yet exposed have to be born in mind. Otherwise one can entrust a technician with an excavation. The excavation at this place (Fig. 148) was comparable to an arithmetical problem. It was solved when every wall had found its connection with houses and fortifications: when, expressed in mathematical terms, an equation had been worked out.

The question that arises with regard to an excavation in villages is not the same with a sanctuary consecrated to a deity. And the excavator's relationship to what is being excavated is different in each case. The excavator must always bear in mind that people built and lived in a village. This means thinking of houses, alleys, workplaces, village walls, in short, the needs of village people, and that a village is an organism. A network of quadrants as imagined or actually laid out on the stone plan divides houses, village walls and alleys into triangles, right angles, diamond shapes or other geometric configurations. However, a house must be viewed in a way appropriate to a house, an alley is a way to a destination, a village wall only affords protection in its entirety.

Villages and vessels have a lifetime just like people. It is sensible to divide up the past into centuries and half centuries because these units have a bearing on the ages of man. Therefore it is difficult to classify people and the works they create such as houses and pots chronologically in lifeless, schematic formulae (like SH III Ca): designations that are basically inimical to the human being.

Once excavated, every ruin suffers from the destructive effects of the weather as well as the heat of the sun. This is especially true of prehistoric villages whose rubble and quarried stone walls are bonded with clay mortar. Without the breath of those who lived in it a house crumbles into decay all the more quickly when it has been taken from the protecting

soil after centuries. Without care walls crumble more quickly than they would otherwise.

An excavated ruin represents a commitment to preserving it. It would be simple to fill it in again, either entirely or in part, and leave knowledge of it to publication. A village built of unquarried and quarried stone requires constant care if it is to be preserved and remain visible. What is being done to preserve the ruined villages in ancient Aegina? Cement is an artificial product and not even a material of itself; it is an alien mass when juxtaposed with natural stone. Restoration of the walls takes place from inside them, with clay mortar, a mixture of clay and slaked lime. An excavated wall is eroded from the top by rainwater and washes out; the hollows and depressions thus created are welcome channels into which liquid mortar can be poured. The wall absorbs it and holds the stones together. Once the inner hollows of the walls are filled with clay mortar, the stones which show on the outside are 'pointed': the contours are traced and reinforced with clay mortar. Then pure earth is thrown on to the clay mortar while it is still wet. Of course, in their original condition the walls did not show up as bare stone; they were whitewashed. All that now needs to be done is to lay down a thick layer of clay, which must, however, be renewed from time to time, on the coping at the top of the wall. How are walls preserved which are based high above ground level on a soil footing? A gently inclined retaining wall bonded with mortar is built up from ground level. Where the new and old walls meet, a small container, filled with topsoil, is set. In it root cuttings from an ice-plant are planted. The ice-plant grows downward to cover the modern wall (Figs. 78;79;105).

The ice-plant is a shimmering, greenish grey succulent: easy to grow, all it needs is a bit of soil and water. However, ice-plants do not simply seed themselves like weeds. A root cutting must be set between the stones in the soil. The ice-plant's roots

do not go deep, they destroy nothing but the plant grows very rapidly, putting out new shoots continuously. It finds its way alone, gliding like a snake along wall copings. Weeds die beneath it because it blocks the sunlight. I have planted this succulent where I felt it was needed: to articulate the tangle of walls and thus make them easier to understand, to protect walls, to line paths through the ruins and to prevent wall upper surfaces from being used as footpaths. For this reason ancient Aegina urgently request visitors to use only the marked paths.

Ernle Bradford expressed the impression Kolonna made on him as follows: a single column still standing upright and, overgrown with grey-green ice-plants, foundations on which rest the walled-in remains of one of the most important prehistoric settlements in Greece.

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H. Walter. Ägina. Die archäologische Geschichte einer griechischen Insel. DKV, München 1995

THE EXCAVATION

The excavation on Kolonna Hill was inaugurated in 1894 by the Greek Archaeological Society at Athens with V. Stais as its first director. V. Stais excavated in the west of the Apollo Temple and to the east in front of the temple, where he discovered the Middle Bronze Age settlement (Arkhaiologiki Ephimeris 1895, 236f.) Between 1902 and 1903 A. Furtwängler, the excavator of Aphaia, conducted exploration on a smaller scale on Kolonna, commissioned by Luitpold, Prince Regent of Bavaria, and the Bavarian Academy of Sciences. In 1924 P. Wolters and G. Welter continued excavation operations; G. Welter remained until 1941. In 1965 the Bavarian Academy of Sciences commissioned H. Walter to take up the interrupted excavation on Kolonna.

The clay models of Villages V-IX (Figs. 49,65,74,101) and of the copper smelter (Fig. 46) are from the hand of Professor G. Praschak; the clay model of "The White House" (Fig. 38) is by Dipl.-Ing. E. Wachter.
Fig. 107 is after Arkhaiologiki Ephimeris 1895, Fig. 2.
The indirect quotation from Ernle Bradford is paraphrased from Die griechischen Inseln. Prestel Verlag. München 1985.

THE BOOK
THE PEOPLE OF ANCIENT AEGINA 3000-1000 BC
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Five thousand years ago people reached the rocky hill called 'Kolonna' and founded a village there. During the following two thousand years eleven villages were built, one on top of the other, on the site. Walls round the village protected the houses and their inhabitants. They were fishermen and skilled mariners; they also used the land round the village to cultivate grain and fruits. They knew how to work metal, inventing the earliest known 'blast furnace' for smelting ore to make copper ingots. The unit of measurement they used when building houses was the human foot and they built with wholesome natural materials – 'a human house'. Communal living became a way of life. In about 1800 B.C. a king built a 'Lower Village' abutting the old village and had stone piled up in the sea off the coast as a breakwater which only the inhabitants of the village could sail through with their boats. The village had become fortified. The king assumed the responsibility for the welfare of his people. A descendant of the first king would later fall in battle. His people laid the dead warrior and his weapons in a grave at the south gate before the wall. The village wall, houses, household utensils, vessels and tools are things that bear witness to lives: legible documents. People lived in the village. If we couldn't picture them in what are now ruins, how empty and bleak these houses and alleys would be.

At the close of the second millennium B.C., the villagers abandoned the hill, which then became a sanctuary consecrated to the god Apollo. A single column of his temple still stands in witness to the sanctuary and the acropolis of the island of Aegina.