THE “PYRAMIDS” OF ARGOLIS

This is a report of a brief investigation of three structures in Argolis, financed by The Archaeological Institute of America and conducted under the auspices of The American School of Classical Studies at Athens, August 2–11, 1937. The three sites examined were: (I) A structure which may, for convenience, be called a blockhouse situated near the head of a valley which leads down from the hills near Nemea (the ancient town, not the railroad station) toward Mycenae. This valley is crossed by the modern road about two kilometres north of the village of Phyghtia. The blockhouse lies about three kilometres from the road from which it may, with difficulty, be seen. (II) The so-called Pyramid of Cephalaria on the south slope of Mt. Chaon, about five kilometres from Argos along the ancient road from Argos to Tegea, two kilometres beyond the source of the Erasinus at Cephalaria. (III) A structure with pyramidal walls lying near the church of Hagia Marina about a kilometre west of Ligurio to the left of the modern road from Nauplia to the Sanctuary of Aesculapius at Epidaurus.

The excavations of the blockhouse and the Pyramid of Cephalaria were conducted for me under the supervision of Mr. Robert Ehrich and Mrs. Ann Hoskin Ehrich, and the digging at Ligurio was undertaken by Mr. Robert Scranton, Fellow of The American School of Classical Studies at Athens. In writing this report, I have constantly used their careful notes, often quoting extensively from them. They are not, however, to be held responsible for any inferences I may draw from their reports or for the general conclusions at which I have arrived.

I have asked Mr. Scranton to examine critically the pottery and the lesser finds and have added his report in extenso. The architectural drawings are the work of Mr. L. Lands, whose services Mr. B. H. Hill courteously placed at my disposal.

I

The Blockhouse

The location of the blockhouse is shown on the sketch map of Argolis (Fig. 1). It lies on the west side of a small stream that has cut for itself a rather deep channel. It commands an extensive view toward Mycenae and the east (Fig. 2) but no great outlook toward the west and north, i.e., the direction of Nemea. Its weathered brown stone fades into the background so that it is not a conspicuous object (Fig. 3).

1 About a day’s work was done near Ligurio, December 18, 19, 1936.
2 The original notes are deposited with the American School of Classical Studies at Athens.
Excavations were conducted here August 10 and 11. No dirt was moved about the exterior except a small amount to uncover the "ramp" leading to the entrance. The interior was badly overgrown with thorns and underbrush. It was also encumbered with stones, which had fallen from the partitions and a few from the outer walls. These stones were especially numerous in the southeast corner. The primary purpose of the investigation being to determine the interior arrangement of the structure, these stones were not moved.

The structure is almost a square, the dimensions being, inside, 9 m. \( \times \) 9.20 m. The walls are 1.30 m. in thickness. It is oriented almost exactly with the points of the compass (Fig. 4). It is built entirely of conglomerate and the blocks are fairly large (e.g., 1.30 m. \( \times \) 1.08 m.). The style is polygonal tending to ashlar (Figs. 5, 6, 7). On a foundation of one or two courses (best seen on the south side) the polygonal masonry rises in five or six rough courses to a height of three metres. This is topped with a course of
Fig. 3. General View of the Blockhouse
Fig. 4. Ground Plan and Section of the Blockhouse
Fig. 5. North Side of Blockhouse

Fig. 6. East Side of Blockhouse
Fig. 7. South Side of Blockhouse

Fig. 8. West Side of Blockhouse
Fig. 9. Coping of Blockhouse

Fig. 10. Corner of Coping of Blockhouse
slabs 0.35 m. in thickness, laid horizontally. The entrance is at the south end of the west side, i.e., toward Nemea (Fig. 8).

Since there never was a modern village near this structure, it has suffered very little. The exterior walls are almost complete. The blocks that are lacking are almost all on the ground about, and could be replaced with a minimum of trouble. The most serious damage is on the northwest corner where the coping and two courses are lacking.

The slabs of the coping, with one exception, all lie transversely across the wall (Fig. 9). They are 1.30 m. in length. Three stones are fitted together to form the corner (Fig. 10). On the south side two of these lateral stones are replaced by two laid longitudinally. Immediately below these two stones a course of the interior cross wall was bonded in (Fig. 11). The long longitudinal stone would, therefore, more securely hold the bonding stone of the wall than would two lateral stones whose joint would necessarily be directly over this stone.

There is no evidence that the walls went higher nor are there cuttings for roof beams, except a doubtful one in the west wall.

On the upper side of the lintel slab (1.68 m. long, 0.50 m. thick) of the doorway are two cuttings running transversely across the slab just above the door jambs. They are
0.06 m. wide and 0.03 m. deep. These may be the bedding for the base of two stones which were set up vertically and leaned together at the top to form the familiar relieving triangle. This hypothesis would, however, postulate a second story, or, at least, some sort of wall above that now standing. Other considerations indicate there was no such wall.

The coping slabs are not broad enough to support a wall of sun-dried brick and still leave room on the coping behind the wall for a fighting man. A floor for a second

Fig. 12. Entrance Corridor of Blockhouse from Within

story may have been built on beams, which rested on these flat coping stones and the tops of the interior partitions. A wall of mud bricks might then have been superimposed on the stone walls. But there is no trace of cuttings for such beams and Mr. Scranton points out that the débris about the blockhouse would show clear indications of such a wall, had there been one.

Within, the blockhouse is divided almost exactly in half by a north-south wall (see Fig. 4). The western half consists of an entrance corridor (4.40 m. × 1.40 m.) and two northwest rooms (4.05 m. × 3.48 m. and 4.05 m. × 3.90 m.). At the outer doorway there are cuttings on the south side for the door jamb—of wood—and in the lintel block a
cutting (0.15 m. square) for the door post (Fig. 12). The door opened inward and could be fastened by a bar, the openings for which appear between the courses of the door frame. The floor level was slightly below the threshold. A few lamp fragments and sherds were found here. The earth below was reddish, containing a few fragments of coarse roof tile. This layer seemed to represent an artificial leveling about 0.20 m. in thickness. Below this was reddish earth mixed with building chips. There was no evidence of a second building.

At the east end of the corridor a doorway, one metre wide, leads left into the first and smaller western room. The cuttings for the door post and pivot are preserved. There is also a square cutting in the centre of the threshold. This can not indicate double doors—the space is too narrow—and must consequently be a mortice to receive a vertical fastening bolt, or a brace. This door also opened inward. Only the lowest

Fig. 13. East End of the East-West Interior Cross Wall of the Blockhouse
course of the wall between the two west rooms is preserved. It is impossible to locate the position of the door in this wall.

On the west wall of the northwest room, near the north end, there is one cutting that might have held a roof beam, the only such cutting found. The entire interior was covered with a thick layer of rubble and earth, loose and powdery in texture. In this there were many large stones, probably from the interior walls. The earth was dark gray and blackish, showing some trace of burning. Below this layer was a hard-packed fill like that in the corridor and at the same level. This seems to have been the original floor.

In the north-south wall just north of the entrance (see Fig. 4) was an opening which doubtless represented a door leading to the southeast room. In this doorway was found the base of a small black pot.
The eastern half of the blockhouse was also divided into two rooms by an east-west wall north of the doorway just mentioned. The wall was clearly defined at its eastern end and at its juncture with the north-south wall (Fig. 13). The door giving access to the northeast room was apparently near the middle.

No attempt was made completely to clear the northwest and southeast rooms. In the northeast room (Fig. 14) under the loose earth and rubble was found a series of stones lying east and west, which at first looked like a floor. They proved, however, to be part of the east-west wall which had fallen north onto the floor of this room. This room was completely cleared and two of these stones were lifted and a pit, one metre in depth, was dug, reaching to the rock foundation of the structure (Fig. 15).

Just above this point at the floor level is the mouth of a drain that penetrates the east wall and issues in a grooved spout cut in one of the wall stones which projects 0.35 m. from the outer face of the wall (Fig. 16). At present the inner end of this conduit is 0.02 m. lower than the outer opening. The channelling on the tip of the projecting wall stone, however, suggests that water was meant to flow outward and that the present slight inward slope of the channel is due to settling of the eastern wall.
which is not far (30 m.) from the bed of the watercourse mentioned above. Another channel penetrates the north wall of the northeast room. Here the wall stone projects 0.46 m. from the outer face of the north wall (Fig. 17), and this channel slopes definitely inward. It terminates in an opening 0.50 m. above the floor of this room. The pit dug near the east wall failed to reveal any trace of a reservoir for the storage of water. These projecting spouts resemble the drain spouts in the wall of Rhamnus (Fig. 18).

Fig. 16. Projecting Spout of Drain in East Wall of Blockhouse

About 100 m. northwest of the blockhouse in the bed of the stream is a spring which gives a moderate flow even in summer. It seems probable that the water of this spring was brought to the blockhouse in an aqueduct (no trace found) and introduced through this opening in the north wall, the surplus flowing out again through the drain in the east wall.

There is no evidence of a second building period or of repairs. The character of the stone—conglomerate—and the advanced character of the polygonal masonry point
Fig. 17. Projecting Spout of Drain in North Wall of Blockhouse

Fig. 18. Projecting Drain Spouts in Wall at Rhamnus
II

The Pyramid at Cephalaria

The Pyramid of Cephalaria is situated two kilometres from the source of the Erasinus (the traditional *emissarium* of the Stymphalian Lake) on the old road from Argos to Tegea. It stands on the lower slope of Mt. Chaon (Fig. 20) and commands a considerable

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1 See Scranton's article on "Pottery from the Pyramids," end.
Fig. 20. The Pyramid at Cephalaria, from the North
Fig. 21. View from Entrance Corridor of Pyramid at Cephalaria toward the Sea (S. E.)
Fig. 22. Ground Plan and Section of Pyramid at Cephalaria
Fig. 23. West Side of Pyramid at Cephalaria

Fig. 24. Southwest Corner of Pyramid at Cephalaria
outlook toward the east and the sea and toward the southeast (Fig. 21). Travellers approaching from Sparta might be in view for some time; those from Argos, Tegea and Mantinea could approach quite near without being seen.

This pyramid has generally been identified with the structure mentioned by Pausanias who believed it to be a *polyandron* of the men of Kenchreae. Leake, Ross, Vischer, and Clark agree at least that it was not a fort but probably a tomb. Curtius and Donaldson believe it to be a signal tower (*φωτιστήριον*) and Tsountas-Manatt agree with them in placing its date in the sixth century. In 1901, Wiegand excavated this pyramid.

He concluded that it was not a tomb and, because mortar was used in its construction, he assigned its date to the first century B.C.

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1 Pausanias II, 24.
2 Morea, II, p. 344; Peloponnesiaca, p. 251.
3 Reisen und Reiserouten durch Griechenland, pp. 142–145.
4 Erinnerungen, pp. 325–328.
5 Peloponnesiaca, pp. 98–100.
6 Peloponnesus, II, p. 365.
7 Supplement to Stuart and Revett’s Athens, p. 23.
8 Mycenaean Age, p. 39.
Since this structure had already been excavated, the task of clearing out the brush and removing the soil to bedrock was comparatively simple. Work was begun here August 7th and completed August 10th.

The pyramid is built of a hard local limestone. The western and northern sides (see ground plan, Fig. 22) measure at the base, respectively, 14.70 m. and 12.58 m. The eastern and southern sides are 8.62 m. and 8.61 m., these sides being shortened by the offset where the entrance corridor is placed with its door in the eastern end. On the

western side (Fig. 23) the walls of the pyramid have fallen badly. The southwest corner has been wrecked (Fig. 24). On the south side, the polygonal masonry, resting partly on the natural rock and partly on foundation courses, rises above the foundations for five courses (Fig. 25). At the door, the southeast corner (Fig. 26) of the pyramid is, as it were, replaced by two corners (see Fig. 22), one forming the corner of the pyramid proper and the other the corner of the addition which accommodated the entrance passage. The east side is the best preserved (Fig. 27). Here the wall rises in one place to its complete original height (3.40 m.). The northeast corner (Fig. 28) and the north side (Fig. 29) give the best idea of the character of the polygonal masonry. It consists of blocks of varying sizes, larger at the bottom where they rest on an even foundation
Fig. 28. Northeast Corner of Pyramid at Cephalaria

Fig. 29. North Side of Pyramid at Cephalaria
and growing gradually smaller as the courses approach the top, with an occasional use of very small stones. The joints are carefully fitted. The workmanship is better than that displayed in the blockhouse.

The entrance at the southeast corner is through a doorway 1.35 m. wide. The top of the doorway is formed by two stones which project till they meet, forming a V-shaped opening. Below this on either side of the passage are cuttings for a lintel—presumably of wood—and on the north side cuttings for door bars. The threshold is lacking.

The entrance corridor, 7.90 m. long, was excavated to bed rock. Just within the corridor was found the mouth of a large pithos upside down (Fig. 30). Just below the level of the threshold of the inner door was found a layer of small stones and packed earth—apparently the flooring of the corridor. This same sort of packed earth was found in the interior of the building and must represent the original floor. Eighty-eight
centimetres from the inner end of the corridor a doorway (Fig. 31) at the right gives access to the interior of the structure proper. This door is 0.80 m. wide and well preserved to a height of 1.50 m. The jambs are of stone. The lower socket of the door post is preserved. The door opened inward and was fastened by a bar.

The interior of the pyramid is 7.10 m. square. Most of the interior was dug to bedrock—a soft sandstone with limestone outcroppings which in places (e.g., southwest corner) formed the foundation of the structure. Cuttings in this soft sandstone show the bedding for an east-west wall dividing the interior roughly in half, and one course of a second wall running from this wall to the south wall of the pyramid is preserved (see Fig. 22). There is also a rough wall of small stones bedded in earth which runs north from the east-west wall to the north wall of the pyramid and also east along the edge of the tank (see below). The mortar which appears in this flimsy wall is probably

Fig. 31. Inner Doorway of Pyramid at Cephalaria from Within
Fig. 32. Ground Plan of the Pyramid at Cephalaria, after Wiegand
the work of earlier excavators. There is no trace of the other cross walls indicated in Wiegand's plan (Fig. 32), the inference being that he took them with him.

At the east end of the east-west wall and partly underlying it is a small bowl-like pit 0.90 m. in breadth and 0.52 m. in depth. This has been partly overlaid by the east wall of the pyramid. It clearly, then, antedates the pyramid. A few fragments of Helladic pottery were found here.¹

Fig. 33. Floor Level of Pyramid at Cephalaria, West Side

The floor level of the pyramid is clearly indicated by the level of the threshold of the inner doorway (Fig. 33) and by a line of demarcation in the foundations which coincides with the exterior foundation line.

In the northeast corner there is a cement-lined tank (Fig. 34) surrounded by a wall of broken tile and mortar (see above). The corners of this tank are filled with a quarter-

¹ See Scranton's article on “Pottery from the Pyramids,” end.
round molding of the same cement. The southeast corner of the tank is occupied by a rectangular structure of unknown purpose. Its corners are also beveled and its construction is identical with the cistern. Its upper surface is not level but is in two planes, each of which may have held a small settling basin. There is also in the floor of the tank at its lowest point a circular depression 0.27 m. in diameter. This is, no doubt, a settling basin. This tank overflows into a drain which pierces the north wall. This drain is part of the original construction of the pyramid and is at the original floor level. The cement of the cistern is carried into the mouth of the drain, clearly indicating the connection of the two, but there is no evidence to show that the cistern is not a later construction. The drain may have been originally intended to carry off the water from the pyramid floor.

In the north wall there are four cuttings for beams to support a second story floor or a roof (Fig. 35). A fifth cutting appears in a wall block slightly displaced but still
lying on the wall. These cuttings are 0.20 m. × 0.21 m. Above this floor—if it was a floor—the outside wall rises 0.50 m., not enough to protect a fighting man unless the height of the wall were increased by a supplementary wall of brick. This wall would have to be vertical, for if the slope of the outer wall were continued, the supplementary wall would soon become too thin to afford protection. The pyramid was, of course, never anything but a frustum.

![Fig. 35. Cuttings for Beams in Pyramid at Cephalaria](image)

The mortar used in this structure does not belong to the building but is a repair—perhaps very late in date. It is not used throughout the building, does not appear below the floor line (except perhaps in the cistern) nor on the outside. It was used to repair the interior of the building and in many places it is possible to see how it has been forced in between stones already in place. It is in the nature of “chinking” and cannot be used to determine the building date of the pyramid. The character of the polygonal work indicates the fourth century, and the evidence of the blockhouse is corroborative.
III

The Pyramid near Ligurio

Pausanias says:1 "On the straight road from Argos to Epidaurus there is, on the right, a building very like a pyramid" (πυραμίδι μάλιστα εικασμένον). He further says that it was adorned with shields of the Argive pattern (i.e., round) and concludes that it was the tomb of the inventor of shields. He continues to say that turning off here (ἐντεθην) to the right one reaches Tiryns. After describing Tiryns, he says:2 "returning to the direct road you reach Midea on the left hand." The most natural interpretation of these passages would be to conclude that one turned off at the pyramid (making πυραμίδι the antecedent of ἐντεθην), but two arguments may be used against this: (1) No structure "like a pyramid" had ever been seen and reported on the road from Argos to Epidaurus before or at the point where one would diverge right for Tiryns — nor, in fact, anywhere in this plain. (2) Having come back from Tiryns to the direct road to Epidaurus, Pausanias mentions Midea on the left and then Lessa at the border of Epidaurus. He then describes the Sanctuary of Aesculapius. I think, therefore, it is a fair inference that he intended in the previous paragraph to cover the points of interest between Argos and Epidaurus, mentioning the pyramid. He then digresses to Tiryns, returns to the "direct road" (not the pyramid) and takes up the tale of the Sanctuary at Epidaurus after mentioning Midea and Lessa. Thus the antecedent of ἐντεθην is not πυραμίδι, but the "direct road" and Pausanias diverges right for Tiryns from it but not necessarily at the pyramid. The use of the English translation instead of the Greek text is responsible for the confusion. If this be correct, then the Pyramid near Ligurio is the one actually seen by Pausanias and to his mind it is, like the one near Cephalaria, a tomb.

This pyramidal structure is situated north of the modern road from Nauplia to the Sanctuary of Aesculapius, a few rods east of the Byzantine church of Hagia Marina, at the very foot of Mt. Arachnaeus (Fig. 36) and about one and a half kilometres west of the village of Ligurio. There are evidences in other structures built along the valley and in cuttings in the rock of the mountainside near Hagia Marina to show that the ancient road from Argos to Epidaurus passed near this structure and probably between it and Mt. Arachnaeus so that it would lie, as Pausanias says, "on the right hand."

Excavations were conducted here on December 18 and 19, 1936 and August 1–9, 1937, under the direction of Mr. Robert Scranton.

Of this pyramid—built of limestone—no more than two courses above the foundations are now standing. Some few stones went to the building of Hagia Marina, but most of them—some even very recently—have been used in the neighboring village of Ligurio.

1 II, 25, 7.
2 II, 25, 9.
Fig. 36. The Pyramid near Liguio, at the Foot of Mt. Arachneus
The batter of the sides and especially the northeast corner, still in situ (Fig. 37), clearly show that the structure was pyramidal. Its dimensions are: north side, 14 m., west side, 12.50 m., south side, 12 m., east side, 12.75 m., including the door—one metre wide. The east wall is not continuous but has a “jog” of 2 m. projecting east just north of the doorway (see plan, Fig. 39). These dimensions and the pyramidal construction clearly show that it was similar in form and probably in purpose to the pyramid of Cephalaria.

The interior of the pyramid was much encumbered with large blocks which had fallen from the walls. Most of these were removed, and with them a layer of stiff clay that lay beneath the destruction débris and which contained, besides those structural blocks, fragments of tiles of all sorts in great abundance (Fig. 38). This layer varied in thickness from 0.30 m. to 0.70 m. Below this, at about the level of the lower of the two preserved courses of the outer wall, began a fill of earth encumbered with broken tiles. These were found to come from a lining of tiles which had been placed around the entire interior of the pyramid. In the northwest corner this facing had fallen in a mass into the interior. In this fill were found fragments of lamps dating from the fourth
century A.D. This may give an approximate date for the wrecking of this interior lining.

The pyramid (Fig. 39) was entered from the east (the side toward Epidaurus) through an opening 1.15 m. wide, just south of the point where the north half of the eastern wall projects 1.72 m. beyond the south half (Fig. 40). There is no trace of a door at this point, for the opening is blocked by a stone sealed in with mortar. This was not removed, as it formed part of a sort of room or shelter built in the angle of the east wall formed by the "jog." Here traces of fire were found on the stones and there was a deposit of loose ash.

Passing through this entrance and turning right, one enters a corridor one metre wide and 2.63 m. long (see Fig. 39). The right hand wall is the exterior wall of the pyramid, the left hand wall is formed by the extension of the "bench" described below.
Fig. 39. Ground Plan and Section of Pyramid near Ligurio
At the farther end of this corridor, standing upright, is a washing tub similar to those in the gymnasia at Eretria and Nemea. About one-third of the upper end is gone (Fig. 41).

Turning left, the pyramid is entered through a doorway 0.85 m. wide. The threshold is still in situ and the lead socket in which the door post turned is beautifully preserved (Fig. 42). The door opened inward. The original floor level is also indicated by the threshold and the block of stone just inside the doorway.

The entire interior of the pyramid above the "bench" is lined with rough tiles laid in courses, forming a lining about 0.15 m. thick. Mr. Scranton assigns this tentatively to the Augustan period.¹

All around the interior of the pyramid runs a supplementary wall which is part of the original construction.² This supplementary wall is about one metre high on the north

¹ See Scranton's notes, III, 2, and article on "Pottery from the Pyramids."
² See Scranton's notes, IV, 2.
Fig. 41. Entrance Corridor of Pyramid near Ligurio, showing Washing Trough

Fig. 42. Doorway of Pyramid near Ligurio, showing Door Socket
side; on the west side it is partially destroyed; on the south and east sides it is only 0.50 m. high. Its thickness is uniform—about 0.75 m. On the south side it has been repaired with tiles similar to those used in lining the interior of the pyramid wall (Fig. 43). This projecting wall is not too well built. The stones are of irregular sizes and carelessly laid. It is flat on top and gives the impression of a bench running entirely around the pyramid. On the eastern side it is continued as an independent wall till it reaches the interior door, its exterior surface forming the left hand wall of the corridor as one enters the structure.

The interior was divided approximately in half, as in the blockhouse and the pyramid at Cephalaria, by a wall running, in this case, north and south. It is made of stones of varying sizes and its workmanship is exactly like that of the "bench" wall. It is overlaid by a later wall composed partly of carefully cut ashlar blocks which belong to a later building period (Fig. 44).
Fig. 44. Cross Walls in Pyramid near Ligurio

Fig. 45. Northwest Corner of Pyramid near Ligurio
A transverse wall also belonging to the original construction crosses this at right angles. It too is overlaid with the ashlar blocks of the later period, but its two lower corners can be seen beneath the later wall in the view of the northwest corner (Fig. 45). The north end of this north-south wall where it abuts the wall of the bench can be seen 1.60 m. south of the entrance (Fig. 46). All traces of doorways in these cross walls have been obliterated.

Fig. 46. North End of North-South Wall of Pyramid near Ligurio

The original purpose of the building has been entirely obscured by a later rebuilding as follows:

On the interior wall of the entrance corridor (see Fig. 40) is a stone hollowed out like the bottom of a pithos. This is lined with cement and from it under stones, one of which is in situ, leads a channel about 0.05 m. in diameter and one metre long, which empties into a basin formed of stones set on end and lined with cement. This measures 0.98 m. × 0.88 m. and is 0.90 m. deep. At the time of the excavation, this actually
Fig. 47. Deep Basin near Entrance of Pyramid near Ligurio

Fig. 48. Cement Flooring of Pyramid near Ligurio (extreme right)
contained slaked lime—solid on top but below still soft and saturated with water (Fig. 47). This tank had an outlet on the southwest corner which gave onto a heavy cement floor 5 m. in length (Fig. 48). This flooring has a moulded edge preserved at the west end (Fig. 49). It could contain liquid about 0.10 m. deep. This slopes southwest and empties between two upright slabs which support a rectangular trough hollowed out

of a stone (Fig. 50). From this point the liquid would enter a drain that is roofed by tiles leaning together in the shape of an inverted V, and appears to pass out through the south wall of the pyramid (Fig. 51). The whole construction can be seen with its relation to the bench and the cross walls in the view of the southeast interior (Fig. 52).

At the north side of the first tank, a pit or well was discovered and excavated to the depth of 1.50 m. Time did not allow the completion of the excavation, but it seems probable that a well was dug here presumably either to supply the original pyramid with water or for water to use in connection with the structure described above.
Fig. 50. Cement Flooring and Stone Trough

Fig. 51. Drain in Pyramid near Ligurio
Fig. 52. Southeast Interior of Pyramid near Liguria
In the southwest room was discovered another tank at a lower level, its bottom bedrock, cement-lined, with a settling pool, 0.10 m. deep, at one side (Fig. 53). This room also contained the bottoms of three pithoi—one of them repaired, which had been bedded in the earth floor (Fig. 54). It is uncertain whether or not these belong to the period of the constructions in the east half of the pyramid, but the fact that the pottery found over them dates from the first century B.C. seems to indicate that they were used in the original building.

![Cement Basin in Southwest Room of Pyramid near Ligurio](image)

The use of the complex described above is uncertain. Clearly some liquid, probably water, was passed through a small orifice where its flow could be readily controlled into a deep vat or tub. There some article taken from the vat was placed on, or wrung out onto, a larger stone. It was not desirable that the liquid or water should spread about the room, and it was drained off underneath a bowl in which rinsing might be performed. It seems to me most likely that a primitive dyeing establishment was installed here on the lines of the elaborate fulling shops of Pompeii. There was no trace of burial except a very late grave containing nothing more pathetic than a modern horseshoe.¹

¹ See Scranton’s notes, II, 3.
Mr. Scranton sums up the building periods of the pyramid as follows: (1) The original construction; (2) the period at which the pithoi and the lower water basin were built (periods 1 and 2 may be identical); (3) the large shallow water basin floor (end of the fourth century B.C.); (4) The remodeling of the establishment and the construction of the elaborate water basin complex and the brick and tile lining (Augustan period). The destruction occurred in the late fourth or the fifth century A.D. I should be inclined to date the tile lining and the remodeling much later, partly from the appearance of the tile construction resembling Byzantine work in style. I am also not convinced that the destruction occurred so early. The chances of slaked lime remaining soft, even when well sealed up, for one thousand years, seem to me very slight. With the date of the original building—before or in the fourth century B.C., I readily concur.

These three structures, then, date from the middle to the end of the fourth century B.C. They are almost exactly the same size; their ground plans are identical. Their
entrances are strikingly similar—all of the fortress type. The blockhouse and the pyramid at Cephalaria are of the same height, and a projection of the walls of the pyramid at Ligurio shows its height to have been the same. There was no second story and no wall of brick superimposed on the stone wall of these structures.

The purpose for which the pyramids and the blockhouse were built now seems clear. They were not tombs, for the doors all fasten on the inside. Such an arrangement for a tomb is as ironical as the fence about a modern cemetery. They were not signal towers (φωικοταγια), for the one at Ligurio has no outlook and that at Cephalaria and the blockhouse only a limited view. They must all have been guard houses capable of accommodating a small garrison who could control the countryside and be safe behind their walls from surprise attacks by a few persons. Without loop-holes for arrows and with no defensive battlements, they could hardly resist a serious attack from a superior force. They must belong to a period when the country needed patrolling and when perhaps tolls could be levied on travellers. Their use had been completely forgotten in Pausanias' time and the fact that he mistook them for tombs or cenotaphs shows that they were disused and unoccupied. But why two of them were pyramidal in form—probably the only pyramids in Greece—is a question still unanswered.

Louis E. Lord