

ρος' α' κατάστιχα όρίζοντα τὰ τοῖς πατριαρχικοῖς ἐξάρχοις καταβλητέα ἐτήσια ἐξαρχικά δικαιώματα ὑπὸ τῶν ἐν τινι χώρᾳ σταυροπηγιακῶν μοναστηρίων¹, β' όμολογίας τῆς πατριαρχικῆς αὐλῆς² καὶ γ' ἐξοφλητικὰ καθόλου γράμματα³.

ΑΡΧΑΙΟΛΟΓΙΑ. — Marathoniaca. — II, by George Sotiriadis.*

I refer my readers to my paper of the 18th of January of this year, published in the February number of the minutes p. 14-19, (9, 1934).

A VAULTED MYCENEAN TOMB AT MARATHON.

A little below the ruined monastery-farm of Vrana at Marathon, in the plain between the mountains of Agrielikí and Kotroni, all visitors to this site knew of a certain underground building, shaped like a hive, with a ruined vaulted top, full of earth and stones nearly reaching to the level of the plain. As up to within a few years a wild fig-tree grew there, called by the ancients Erineos and today Ornios, the place itself was known by this name. The people of the countryside thought that it was an abandoned lime-kiln, but certainly anyone examining it carefully would not

369. Τοῦ λαμπαδαρίου Πέτρου τοῦ Πελοποννησίου περιέχουσιν ἐκ τῶν ἐν τῇ βιβλιοθήκῃ χειρογράφων κωδίκων τῆς ἐν Κωνσταντινουπόλει Μεγ. τοῦ Γένους Σχολῆς ὁ ὑπ' ἀριθ. 52 κώδιξ καταβασίας τῶν δεσποτικῶν καὶ θεομητορικῶν ἑορτῶν «κατὰ τὸ ἕφος τῆς τοῦ Χριστοῦ Μεγ. Ἐκκλησίας ἐπὶ ὠφελείᾳ τῶν Χριστιανῶν», ὁ δὲ κώδιξ ὑπ' ἀριθ. 53 ἐν φύλ. 7α γράμματα καὶ μέλος, ὁ δ' ὑπ' ἀριθ. 56 μουσικὴν ἀνθολογίαν. Ὅρα Α. Π. ΚΕΡΑΜΕΩΣ, Δύο κατάλογοι ἑλληνικῶν κωδίκων, ἐν *Bulletin de l'institut archéologique Russe à Constantinople*, 14, 1909, σ. 57 καὶ 58.

¹ Ὁ Π. ΖΕΡΑΕΝΤΗΣ ἐν Ἱστορίᾳ ἐκκλησίας νήσων, 1, σ. 156 διὰ τὸ δυσανάγνωστον δὲν ἐδυνήθη νὰ ἀναγνώσῃ τὸ ὄνομα τοῦ λαμπαδαρίου τοῦ συνυπογράφαντος ὡς μάρτυρος τὸ ἀπὸ 1754 κατάστιχον τὸ ὄρισαν τὰ τῷ καθολικῷ ἐξάρχῳ καταβλητέα ἐτήσια ἐξαρχικά δικαιώματα ὑπὸ τῶν ἐν Πάρῳ καὶ Νάξῳ σταυροπηγιακῶν μοναστηρίων.

² Οὕτως ὁ λαμπαδάριος Δανιὴλ συνυπέγραψε τὴν ἀπὸ 15 Ἰουλίου 1754 εἰς τὴν ἐπαρχίαν Καστορίας ἀφορῶσαν ὁμολογίαν τῆς πατριαρχικῆς αὐλῆς τὴν ὑπὸ τοῦ πατριάρχου Κυρίλλου τοῦ Ε' βεβαιωθεῖσαν (Π. Ε., 3, σ. 883), τὴν ἀπὸ 19 Δεκεμβρίου 1764 εἰς τὴν πατριαρχικὴν ἐξαρχίαν Μετσόβου ἀφορῶσαν ὁμολογίαν τῆς πατριαρχικῆς αὐλῆς τὴν βεβαιωθεῖσαν ὑπὸ τοῦ πατριάρχου Σαμουὴλ τοῦ Χαντζερῆ. Ὅρα ἐν Ἐπαρχιακοῖς ἐκκλησιαστικῶν Κωνσταντινουπόλεως, ἔκδ. ΣΟΚΟΛΩΦ, σ. 38.

³ Οὕτω τὸ ἀπὸ 6 Αὐγούστου 1766 ἐξοφλητικὸν γράμμα τοῦ πρωτοψάλτου Ἰωάννου πρόφην καπι-κεχαγιᾶ τοῦ Ἀντιοχείας Σιλβέστρου, τὸ ὑπὸ τοῦ πατριάρχου Σαμουὴλ τοῦ Χαντζερῆ βεβαιωθὲν συνυπέγραψεν ὡς μάρτυς ὁ λαμπαδάριος Δανιὴλ, (Π. Ε. 2, σ. 209-210). Ὁ λαμπαδάριος Ἰάκωβος συνυπέγραψε τὸ ἀπὸ 22 Ἰουνίου 1784 πρὸς τὸν μητροπολίτην Βελιγραδίου ἐξοφλητικὸν γράμμα τὸ βεβαιωθὲν ὑπὸ τοῦ πατριάρχου Γαβριὴλ τοῦ Δ', αὐτ., 3, σ. 704.

* Ἀνεκoinώθη κατὰ τὴν συνεδρίαν τῆς 11 Ὀκτωβρίου 1934.

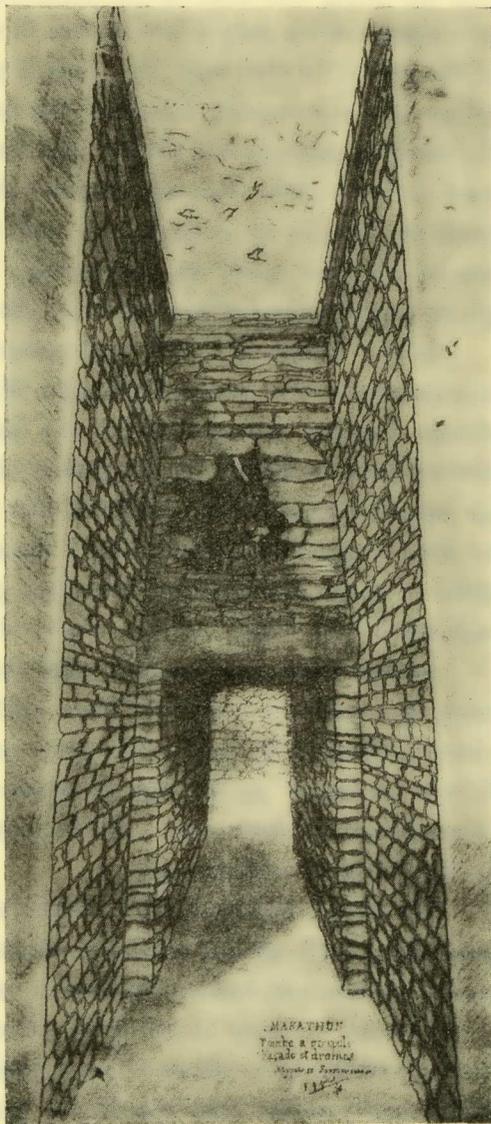
have made such a mistake. The building is utterly unlike any ordinary lime-kiln, as can distinctly be seen by the spiral bands of the inner sides of the hive. The repeatedly recurring girdles of flat stones rise evenly from the depth, all in the same way and narrowing gradually till they reach the summit of the hive. But evidently nobody had noticed this detail. At least nobody ever wrote a word about the building, either to report it as an ancient monument or as a more recent construction. Even in the very perfect German map of Attica, and consequently of Marathon, (on a scale of 1: 25,000 Kiepert and Kaupert) though the position of the building itself is marked by a half-moon, no explanation as to the meaning of the mark is given. Personally I knew of the existence of this building from the year 1926 when, excavating in the not far distant Avlóna at the gate of the farm of Herodes Atticus and his wife Regilla, I also examined the land around the ancient town of Marathon and the Mycenaean Acropolis which I then discovered. The above mentioned vaulted Mycenaean tomb is more to the west of the ancient town below the Acropolis, at a distance of a kilometre and a half, and also to the west of the tumulus of the Marathon warriors and at about the same distance. But when last year I was occupied with the Heracleion of Herodotus in the same part of the country, below Mount Agrieliiki and close to the monastery-farm of Vraná, I decided to examine the Mycenaean tomb which was only a short distance away. I had little hope of finding this home of the dead intact from Mycenaean days, more than a thousand years B.C., but it was necessary to empty it of the rubbish it contained and to show up the interior walls and possibly to find something which might have remained in the earth beneath. Possibly the relics of some altar or even a grave which might, as occasionally happens, be hidden on the outer part of the hive, or some other object at the entrance to it. But what I particularly wanted to know was how the builders had solved the question of the «dromos» (passage) leading to it from a lower level of the plain, because all other similar tombs, with the exception of one at Pylos in Messenia, were always found at the base of a mountain, or hill, or on the side of a mound of earth, as, for instance, the well-known one near the ancient Acharnæ, now Mænidi, to the right of the carriage road from Athens. How I started and continued my work on this Marathonian monument last year, and how I recently completed it, I have already described in detail in an article in one of the

magazines of Athens (The Nea Hestia and in the Messenger d'Athènes of the 23rd, 24th, 25th, 26th, 27th Dec. 1934). Here I will simply state my conclusions about it.

This vaulted Mycenaean tomb of Marathon is unlike most of the others in that it is not led up to by a dromos, often many metres long. Owing to its position this would have been impossible. The level plain in which it is situated only drops slightly to the east from Vranà-Avlóna, so it could only be in that direction at the abundant quantity of rain water from the steep sides of the surrounding mountains would be able to flow. For precisely the same reason would it have been impossible to dig a ditch or dromos leading to the entrance of the hive from a lower level of the plain.

How this ditch or road could have reached its destination at the entrance of the hive, was easy to calculate precisely on account of the depression in the plain from west to east.

Here, at a depth of five metres, I found a short covered passage (*κατάστεγος δρόμος*), as seen in the above picture, 2.55 metres long and 2.75 high, by 1.50 broad. This passage is covered by three large paving stones. Above it is seen the front of the entrance to the hive itself. As it is difficult



¹ *Néa Eoríá*, 191, p. 1061-1067 and 192, 1934, p. 14-19. To comp. the Minutes of the Greek Archeol. Society of the year 1933.

to believe that the dead were lowered through a well-like aperture of about 3 metres by 2, as dug by me to avoid further expense, I imagine that the thing was done in the following manner. The passage continued as a simple ditch only a few metres to the east and then rose up gradually to the plain. In that way the funeral procession coming from the royal palace of the Acropolis, followed the decline to the ditch till it reached the covered passage and thence into the hive. The grave itself might have been in some little chamber near the hive as, for instance in the vaulted tomb of Minyas at Orchomenos and in that of Atreus at Mycenæ, or else in the hive itself. In that of the Marathon monument I found the grave beneath the earthen floor of the hive, as will be seen below.

In the meantime I was not obliged to dig an opening from above downwards to the covered passage. My work consisted in removing the stones beneath which I found the large paving slab of 3 metres by 2, thrown back evidently by the grave-robbers who must have tried to make an entrance there. When I moved this slab a little way, as it was difficult to draw it upwards to the plain, I found not only large stones but quantities of bones of animals—oxen, pigs, goats, sheep, and also teeth and jaws, and small bird bones, besides pieces of broken coloured Mycenaean vases.

By this time I felt certain what the monument was. It was quite evident that after the body had been buried inside the hive, sacrifices were offered, followed by public banquets. As therefore the entrance to the hive had to be sealed up for fear of grave-robbers, large quantities of stones were thrown in from above, and these stones, now removed by me, brought to light the covered passage.

No sooner however did I reach this point than I noticed that it too was filled with stones and large quantities of earth mixed with the same animal bones and broken Mycenaean vases, but uncoloured.

On the removal of all these stones and earth I finally reached the interior of the hive where I found distinct traces of a pyre. This made me hope that I might find the Royal grave still intact and I at once began to remove all it contained. The chief difficulty lay in the fact that the slabs on which the hive rested were cracked and therefore in danger of falling in. During the following winter and spring I had strong supports made to safeguard both the covered passage and the already crumbling parts of the walls of the hive. When the entrance from the passage to the

hive was made safe I was able to go forward with my work both from the passage below and the aperture above with ease, and on the completion of the excavation I found the following conditions: When, who knows how many centuries ago, the summit of the hive-shaped vault fell into ruins or was destroyed, earth, sand, and stones were swept into it by rains from the plain, thus forming a cone at least 2 metres high.

Below this rubbish a second layer of totally different material appeared, composed of big blocks of stone and some enormous pieces of uncut rough marble. I began to think that perhaps these stones were from some altar thrown over by grave-robbers, when I noticed amongst them not only many flat stones, which were those of the girdles of the inner walls of the vault but a huge round and consequently very heavy stone which would have fitted exactly into the top. When one understands the formation of the hive and the size of its top point one can also understand how impossible it would have been to close the vault by the gradually narrowing upper circles without danger of it falling in. It was necessary for a very large and heavy circular stone to be placed at the top so as to press heavily upon the last row of the circular girdles, and in that way to reinforce the whole construction. What I could not understand was the purpose of the huge blocks of marble which had fallen into the hollow of the hive. Mr Karo, Director of the German Archæological Institute of Athens, thought that these blocks had been placed around the top of the hive for the same purpose, and this explanation from an expert on Mycenean matters like Mr Karo, I accepted without reserve. When I finally emptied the hive of all the rubbish it contained, the previously-mentioned pyre appeared. This pyre covered all the 7 metre diameter of the hive to a height of 2 metres and consisted of blackened stones and charcoal and a few ashes.

All this great quantity of burnt material reposed upon a bed of pure ashes 5 centimetres deep. They were the absolutely clean ashes which would fall from any hearth or brazier. The original floor of the hive was immediately beneath these 5 centimetres of ashes.

Digging to a depth of 40 centimetres I came upon the first grave close to the southern side, and then the second one to the north. They were horizontal graves, like those of the present day, and were evidently intact in spite of more than 30 centuries having passed over them since their dead had been deposited within. The first gave up a golden bowl,

without any design on it, which had been placed in the hands of the doubtless royal corpse, whereas the second contained only copper utensils or ornaments, utterly ruined by the damp earth.

No bones were found in either grave, with the exception of one very small human one in the first.

As far as I am in a position to judge it seems to me impossible that a fire made of such a large quantity of wood, on which such sacrifices had been made, could have been built within a stone-built vault. Even if the top, up to which the flames would certainly have reached, had been left open on purpose, still it would have been impossible for no sign of fire to be distinguishable upon the stone walls. But no sign whatever of burning can be seen anywhere on the well-preserved walls of the hive.

My conclusion therefore is that first of all a deep hollow of about 8 to 10 metres or more in diameter was dug in the plain and that within that hollow the dead were buried in ordinary graves, as found to-day, and very probably both King and Queen at about the same time. The funeral pyre was then lighted above the graves and sacrifices burnt upon it. This was followed by the banquet and from it came all the above-mentioned bones of animals found amongst the ashes which blocked the entrance to the hive from the level of the plains to the covered passage — dromos —, and along the passage itself, when, after the final ceremonies, the vault-hive was built up within the hollow and there remains till to-day.

**ΦΥΣΙΚΟΧΗΜΕΙΑ.—Action de l'effluve électrique sur le bioxyde d'azote
(NO) Production de d'azote actif, par C. Zenghélis et Kimon
Evangélidis.**

Berthelot a étudié le premier l'action des décharges diffuses sur le bioxyde d'azote. Il démontre dans une courte note qu'une partie de l'azote devient libre, une autre se combine avec l'oxygène libéré en formant de la vapeur nitreuse¹.

Pour bien suivre cette réaction d'une façon quantitative, nous nous sommes construit ad hoc deux ozoniseurs. Le premier avait une capacité de 454cm.c. avec une distance polaire de 8^{mm}. Il nous a servi pour les expériences à volume constant. Le second, d'une capacité de 838cm.c. se trouvait

¹ *Comptes-rendus*, 82, 1876.