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V

EXCAVATIONS BY THE SCHOOL AT ERETRIA IN 1891.

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[PLAN, PLATE I.]

INTRODUCTORY NOTE.

A preliminary and summary account of the results of the excavations at Eretria in Euboia, carried on during the spring of 1891 by the American School of Classical Studies at Athens under my direction, was sent for publication to the Committee of the School, at the close of the excavations, embodied in my Report to the Committee for 1890–1891. The complete and authoritative account of our work at Eretria will contain several articles corresponding to the distribution of the work among the members of the expedition which I made at the beginning of excavation, and will probably be terminated in the course of the coming year. According to this organization, my colleague, Professor Richardson, of Dartmouth College, the Annual Director for the past year, undertook the department of epigraphy, together with a historical account of Eretria; Mr. Fossum, late of Johns Hopkins University, remained at Eretria during the whole period of excavation, displaying most intelligent perseverance in his work, and had charge of the excavation of the *skene* of the theatre; Mr. Brownson, of Yale University, had charge of the *cavea* of the theatre; Mr. Pickard of Dartmouth College, and Mr. Gilbert, of Brown University, were in charge of the survey of all the walls of the ancient city with a view to produce a topographical map of the district; Mr. Pick-

ard also made a careful topographical study of the locality, and, assisted by Messrs. Brownson and Fossum, did most of the levelling of the theatre. I undertook the excavation of graves in the neighborhood of Eretria, including that which has been called the Tomb of Aristotle, in addition to the general supervision of the work.

Besides the general advisability of delaying the publication of results until all the material has been collected and sifted, another cogent reason lies in the fact that the work at the theatre is not yet completed, and must be continued in the coming season. Even as regards the *skene*, some digging will still have to be done in the region of the *parodoi* and the walls marked PΣ and OΞ on the plan.

However, the important bearings of the theatre we have excavated upon fundamental questions of the Greek stage, and thus upon the nature of the performance of ancient Greek plays, are such that our work has already been introduced by both contending parties into the controversy now in progress. Dr. Dörpfeld (in the *Berliner Philologische Wochenschrift*), Messrs. E. A. Gardner and Loring, and Miss Sellers (in the *Athenæum*), have quoted the theatre of Eretria in support of their respective views. In a letter to the *Athenæum* (in July last) I pointed to the prematureness of any introduction of the theatre of Eretria for evidence on either side, and asked that we should be allowed to make an accurate publication of the facts we had established, before they were made the subject of inference and controversy. But, considering the exceptional importance of the *skene* of Eretria, together with the impatience manifested by the scientific world for the publication of our work, I have deemed it right to issue at once the papers of Professor Richardson and those of Messrs. Fossum and Brownson, together with the plan of the theatre so far as excavated.

In the publication of the ancient remains of the theatre it was my intention to avoid, as far as possible, for the present, the drawing of conclusions directly implying acceptance of the main views of either of the parties which now stand opposed in the hypothetical reconstruction of the Greek stage, and to limit our publication to the simple and exact statement of the facts we had brought to light. This reticence I thought called for, because, though what may be called the "orthodox" view of the Greek stage has had adequate exposition, the new views of Dr. Dörpfeld have not yet been supported by a full and systematic account of the numerous data collected by that eminent

archæologist in support of his theories. Pending this publication it did not appear to me wise for archæologists who had not access to all the material at the disposal of Dr. Dörpfeld either to accept his views unconditionally, or to oppose them.

Now, in Mr. Fossum's account it will readily be perceived that he leans strongly toward the support of Dr. Dörpfeld's views. But, I must state that, in the attribution of the very imperfect and confusing traces of walls and architectural members as they appeared during the excavation, as well as in the reconstruction of the theatre, both Mr. Fossum and I came to our opinions independently of Dr. Dörpfeld's theories. Considering the eager perseverance, however, with which Mr. Fossum has worked, as well as the maturity of observation and inference which he has acquired by study, I have decided to allow his paper, on the whole, to remain as he has written it. The definitive publication will have to stand over until the excavation is completed, so far as we propose to carry it. Meanwhile, the plan, as here published, is quite official. It is also our view that the theatre, as it now appears, represents probably three, and certainly two, successive stages in the history of the ancient structure.

Finally, I have much pleasure in adding that we already have, as an immediate consequence of the Eretrian excavations, another favorable result of excavation carried on by our School in this year. At the instigation of my predecessor, Professor Merriam, the excavation of the theatre of Sikyon, undertaken by the School during his term of office, was resumed, with particular reference to the underground passage leading to the centre of the orchestra. Mr. Kabbadias, the Ephor-General of Antiquities in Greece, having, with his usual readiness, granted the required permission, Dr. M. L. Earle, formerly a student of our School, and now instructor in Barnard College, New York, went to Greece during the summer, and, in spite of the heat and difficulty of digging in the hot season, continued the excavations in the theatre of Sikyon, with the important results contained in the paper which is appended to this report. When, in addition to the work at Eretria, we consider Mr. Washington's successful digging at Plataia, and add this latest achievement of Mr. Earle, we have every reason to call the last a very fruitful year of School work.

CHARLES WALDSTEIN.

August 26, 1891.

I. ERETRIA: HISTORICAL SKETCH.

The recent excavations at Eretria justify an attempt to make a picture as full as possible of the rise, the continuance, and the decay of that important city, with the help of scattered literary notices and of inferences from the somewhat impressive remains.

We find Eretria[1] existing at the time of the composition of the Catalogue of the Ships, the Domesday Book of Greece. It appears without epithet or description in *Iliad*, ii. 537. Perhaps not without some significance is it named second among the Eubœan cities, Chalkis being mentioned first. When it emerges into the light or rather into the twilight of history (Thouk. i. 15), it is engaged in disputing with Chalkis the right to the first place. The boldness with which it reached out and laid claim to the Lelantine Plain, which lay so much nearer to Chalkis, argues a long period of prosperity in which it had developed opulence and power. But it is idle to hope for more than here and there a suggestion, throwing a little light on that period. One such suggestion is found in Herod., v. 57, where it is said that the ancestors of Harmodios and Aristogeiton claimed to have come from Eretria originally, but that closer investigation led to the belief that they were Phœnicians, who, coming to Boiotia with Kadmos, settled at Tanagra. Anyone who sails up the Euripos on a clear day will be impressed with the nearness of the plain around Tanagra to the shore of Euboia. Considering that waterways are bonds and not divisions, one may say that Tanagra and Eretria belong to the same great natural amphitheatre surrounded by mountains.[2] This close connection being realized, it seems probable in advance that any Phœnician immigration which reached Boiotia (and this is the only side of Boiotia open to Phœnician immigration) would have included also the Eubœan shore. The passage in Herodotos comes in to give almost a certainty to a reasonable conjecture. Both reports between which Herodotos felt bound to choose were very likely correct. We may put the Gephyræans down as Phœnicians from the region of Eretria and Tanagra.

[1] In spite of its maritime associations, the name, in view of other inland Eretrias and the variant Ἀροτρία (STRABO, p. 447), means probably not "oar-town," but "plow-town." TOZER, *Geogr. of Greece*, p. 250.

[2] It is in fact one of the most striking signs of the humiliation of Boiotia that Athens reached across or around these mountain barriers and exercised a controlling influence in the affairs of Chalkis and Eretria.

If one seeks for corroborations of Phœnician occupation of Eretria, he finds among the several stories that Strabo has to tell of the origin of the city, one which is to the point. He says (p. 447) that the Arabians who came over with Kadmos (Ἄραβες οἱ Κάδμῳ συνδιαβάντες) stayed behind in Chalkis and Eretria. But perhaps it is an impertinence to hunt after scattered literary notices, when we have the facts of the presence of the murex along the Euripos (Arist., *Hist. An.*, v. 15) and the copper-industry of Chalkis. Wherever there were purple and copper, there were Phœnicians. We can hardly think of the Phœnicians as occupying Chalkis without including Eretria also. Here were harbor, plain, and acropolis, as at Corinth and Nauplia. We may, then, think of Phœnicians awakening here, as they did everywhere along the coasts that they touched, the ruder Hellenes to a new life.[3] Accordingly Chalkis and Eretria developed early. While Athens and Sparta are still slumbering, these cities are founding colonies from Chalkidike to Cumæ. In the eighth century B. C. they had their blooming period. Miletos and Samos did not develop until a century later, and when they came to the front the Eubœan cities were already on the decline.[4]

It is impossible to trace with certainty anything of the Phœnician settlement at Eretria. Perhaps it was on the peninsula forming the east side of the present harbor. This peninsula was once longer and wider than at present. It is still about 600 ft. long and about 300 ft. wide at its widest part. The action of wind and wave both up and down the Euripos seems destined to wear it away entirely. Even now it is an island at some hours of the day. It contains numerous remains of walls of the Macedonian or the Roman period. What at first appeared to be traces of very old walls much disintegrated proved to be an illusion.

Strabo gives traditions of early settlements in Eretria from Attika and the Peloponnesos, which it is difficult to prove. The immigration from Elis, which is probably separate from that from Triphylia, he attempts to substantiate by appealing to the prevalence of the Elean rhotacism in Eretria.[5] Perhaps the mixture of many races, Abantes,

[3] DONDORFF, *Die Ioner auf Eubœa*, p. 29.

[4] HOLM, *Lange Fehde*, in *Abhandlungen zu Ernst Curtius' 70tem Geburtstag.*

[5] It is interesting that a Eubœan inscription, published in the Ἐφημερὶς Ἀρχαιολογική, for 1872, containing the text of a treaty between Eretria and Histiaia, shows several instances of rhotacism, *e. g.*, ὁπόραι, ἄ[ρχ]ουριν, παραβαίνωριν. Others in Ἐφημ. Ἀρχ., 1887, p. 82, *seq.*, and 1890, p. 195, *seq.*

Phœnicians, Ionians, and Æolians, gave to Eretria that alertness which marked it in a peculiar degree.

In the long period of prosperity before the Lelantine War, which made Chalkis and Eretria famous, a sad emerging into history, the two cities went hand in hand. This Curtius finds indicated by the name "Eubœic talent," supposing that had the cities been antagonistic the talent would have been named after one or the other of them.[6] Perhaps they made a mistake in founding colonies conjointly or near together, as in Chalkidike.[7] When the war broke out it is supposed to have been conducted with a bitterness[8] which seems to have been born years before. It is not unlikely that colonial troubles had as much to do with the break as the rich plain between the two cities.[9] The quarrel was fought out with the help of many allies on each side.[10] The Greek world was divided into two hostile camps, a division which showed itself for centuries. Eretria was vanquished without losing her independence or her honorable standing. The two neighbor cities never tried conclusions again, and lived amicably, except when the questions connected with Athenian or Macedonian rule in later times threw them temporarily into hostile camps. Eretria, however, appears to have had a good understanding with Athens in the very period when, shortly before the Persian Wars, Chalkis was conquered by Athens and made an Athenian possession.

The date of the Lelantine War is shown by Curtius[11] to have been the middle of the eighth century B. C. Eretria had still nearly three centuries of history before its first destruction. It now abandoned that extensive scheme of colonization which, with its rivalries, must have been quite a drain upon its population, and now probably reached its maximum. To this time we may refer the stele in the temple of Artemis Amarysia,[12] the principal sanctuary of Eretria, standing about

[6] *Hermes*, x, p. 223. [7] Eretria took as its field Athos and Pallene; STRABO, 447.

[8] The curious compact mentioned in the corrupt passage in STRABO, p. 448, not to use weapons thrown from a distance (*μὴ χρῆσθαι τηλεβόλοις*), may refer to the heat of the struggle in which both parties wished to kill at close quarters, or to a desire to rule out what seemed to them contrary to proper procedure on the part of scientific warriors. PLUTARCH, *Thes.*, 5, and the passage there quoted from ARCHILOCHOS would favor the latter view.

[9] E. CURTIUS, in *Hermes*, x, p. 219. [10] HOLM, *Lange Fehde; Thouk.*, i. 15.

[11] *Hermes*, x, p. 220.

[12] This title, which survives in the name of the Attic village Marousi (LEAKE, *Demi of Attica*, p. 41), was one under which the goddess was worshipped in Attika with no less zeal than at Eretria. PAUS., i. 31. 4.

a mile outside the walls, on which stele, according to Strabo, p. 448, was inscribed a record showing that the Eretrians used to make their great procession out to the temple with three thousand hoplites, six hundred cavalry and sixty chariots. To the same time also we may refer the Eretrian control over Andros, Tenos, Keos, and other islands.[13] Then probably the Eretrians set up at Olympia the big bronze bull, the companion piece to the one dedicated by their friends the Kerkyræans.[14]

At the time of the famous wooing of Agariste, in the first half of the sixth century B. C., Eretria was, according to Herod., VI. 127, in its bloom (*ἀνθεύσης τοῦτον τὸν χρόνον*). That Eretria alone of all Greece shared with Athens the attempt to aid the Ionians in their revolt against Darius (Herod., v. 99), speaks well for its prosperity and its spirit. Two things we must not forget in connection with this expedition: first, that it was on Eretria's part the payment of a debt to Miletos for services rendered in the Lelantine War;[15] secondly, that Eretria was in such intimate relations with Athens as to give some color to the story mentioned by Strabo, that Eretria was colonized from an Attic Eretria.

We are not likely to forget the consequences to Eretria of this assistance rendered to the Ionians. In the year 490 B. C., when the opportunity at last came for fulfilling his vow against the Athenians, Darius was not in such haste to take vengeance on these principal abettors of the revolted Ionians, now subdued, that he could forget the Eretrians. On them first fell the blow. The story is told briefly and graphically by Herodotos (VI. 100). In her hour of need Eretria stood alone, with divided counsels and traitors in her walls besides. She did ask Athens for help, and, if we may believe Herodotos, Athens acted not ungenerously. It could hardly be expected that the main body of Athenian troops should go over to Euboia to meet the Persians. That would have been to give Athens to the Persians on the chance of saving Eretria. But Athens assigned to Eretria the four thousand Athenian kleruchs of Chalkis. These, however, did not stay. Before it came to an actual conflict they were off to Oropos, which is the last

[13] STRABO, p. 448.

[14] PAUS., v. 27. 9.

[15] This Ionian revolt was Miletos' affair. It is noteworthy that the Samians, the enemies of Miletos and Eretria in the Lelantine War, ruined the Ionian cause by deserting almost in a body to the Persians in the naval battle on which all was staked. HEROD., VI. 14.

we hear of them. They do not appear to have done service either at Marathon or before Athens.[16]

Left alone, the Eretrians voted down the suggestion of retiring to the mountains, and, deciding not to risk an engagement in the open, retired within their walls and defended themselves for six days, incurring and inflicting great losses. On the seventh day, two traitors, Euphorbos and Philagros, betrayed the city to the Persians, who destroyed the temples and enslaved all the inhabitants, who, after witnessing the discomfiture of the Persians at Marathon from an island near by, were taken away on the Persian fleet and settled in the heart of the Persian dominion.

Yet Eretria did not lose its corporate existence, for ten years later its seven ships appear in the lists of the Greeks who fought at Artemision and Salamis.[17] At Plataia also it furnished with Styra (which was probably an insignificant appendage, as it sent only two ships to the Greek fleet; Herod., VII. 1) a contingent of six hundred men drawn up in line next to the four hundred Chalkidians.[18] Its name was carved on the tripod-standard of serpents, set up at Delphi, that roll of honor of the victorious Greeks. It is still "plain for all folks to see," on the fourth inscribed coil, reckoning from the bottom. Probably there were refugees enough to form a nucleus of a city immediately after the withdrawal of the Persians from Marathon.[19] Herodotos does not say that anything was destroyed except its temples. Greek dwellings, for that matter, if destroyed, were soon replaced. Whatever walls then existed could not easily have been overthrown. A gate or two might have been broken down, but the Persians surely had no time and probably no tools to wreck such walls as those the remains of which are now to be seen on the acropolis of Eretria. They waited only ὀλίγας ἡμέρας, and then went on to Marathon.

[16] WECKLEIN, *Tradition der Perserkriege*, p. 39, supposes that Herodotos has here, as usual, colored his narrative in the interest of the Athenians, in inserting the story of an Eretrian, Aischines, sending word to the Athenian allies that traitors were going to give Eretria to the Persians, and that it was time to act on the principle *sauve qui peut*. The fear of "the men clad in the Persian garb" was probably still strong enough to induce these allies to get across to Oropos as soon as possible without being sent away.

[17] HEROD., VIII. 1 and 46. [18] HEROD., IX. 28, 31.

[19] Considering the great talk of taking refuge in the mountains and of the likelihood that the city was to be betrayed, it would be very strange if many at least of the non-combatants had not taken refuge individually according to the suggestion.

The great question in regard to the topography of Eretria is whether or not the present acropolis walls are those of the pre-Persian city. I believe that they are pre-Persian, and the very walls to which the scattered Eretrians who were not carried off to Asia returned. But for a single passage in Strabo, no one would ever have supposed that a city like the pre-Persian Eretria could have been established anywhere along this coast except on this very hill. Settlers who left this out, and chose another spot near by, would have become more proverbial in Greece than the " blind men " who chose Chalkedon and left Byzantion to later arrivals. But Strabo (p. 403), in reckoning distances from the Bœotian side to the Eubœan side of the gulf, makes a distinction between Old Eretria and New Eretria, which would seem to locate the pre-Persian city a little over a mile to the east of the later one. In spite of the doubt whether Strabo ever visited this region, and in spite of his colossal errors in regard to places which he has not visited,[20] geographers have generally sought to identify some of the foundations of walls to the east of the acropolis with old Eretria. It is refreshing to find recently a spirit of revolt against this slavery to a passage of Strabo. Lolling, in Iwan Müller's *Handbuch der Klassischen Altertumswissenschaft* (III, p. 192), says simply: *Eine Stelle weiter östlich wurde als Alt-Eretria bezeichnet.* The same author in the *Mittheilungen d. deutschen archäolog. Institutes in Athen*, vol. X, p. 353, says: *Das Schweigen der Historiker und aller anderen Schriftsteller berechtigt uns zu der Annahme, das die Bezeichnung der Fundamente unweit der Stadt als Alt-Eretria auf eine Linie zu stellen ist mit der jetzigen Bezeichnung Paläochora, fur eine Ortschaft deren Name verschollen ist.*[21] Strabo being treated as a reporter of traditions, we may make Lolling's words (*l. c.*) our own: *An eine wirkliche Verlegung der Stadt, und noch dazu an eine so nahe liegende andere Stelle, wird Niemand glauben, denn so gewiss die Stadtgrundung Athens sich an die Akropolis anschloss, so deutlich ist auch die vortretende Höhe des eretrischen Olympos von Natur zur Akropolis einer grösseren Stadtgrundung des Nord-Attika gegenüber liegenden Küstenstrichs prädestinirt.*

But, besides the impression which one gets from sojourning in Eretria that here and here only must the city have found its acropolis,

[20] For the confusion between Kirrha and Krissa *cf.* STRABO, p. 416.

[21] In addition to the several cases of "Alt-Theben," which Lolling adduces, the striking case of Palaia Larissa might be adduced, the name under which Krannon was hidden until it was brought forth by Leake.

the remaining walls make upon any one first and last an impression of great antiquity. If it is not absolutely certain that they are pre-Persian, it is certain that they cannot be much *later* than the Persian War.[22] But for a mere remnant of returning fugitives, who would lay out a new acropolis of such large proportions? It is clear that the existing acropolis belonged originally to a large and prosperous city. Here is a homogeneous system of polygonal wall more than a mile in extent, with towers of polygonal masonry at irregular intervals, enclosing the whole area of the acropolis hill, which slopes to the south and the harbor, but falls off abruptly on its other sides. One may suppose New Eretria in these old walls to have regained gradually new life and strength, leaning perhaps on the arm of Athens.[23] In the time of Perikles, 446 B. C., it seems to have been recalcitrant with the rest of Euboia, and to have required the controlling influence of some Athenian kleruchs.[24] At last, in 411 B. C., it threw off the Athenian yoke in a rather treasonable manner. The Athenian fleet being beaten by the Spartans in a naval engagement off the harbor, a disaster brought about largely by the Eretrians having refused to furnish supplies, many Athenians escaped to Eretria as to a friendly city, and were immediately put to death by the Eretrians.[25]

Something of the history of the period subsequent to the Persian War we may trace in the walls. The first use of returning prosperity would naturally be the repair and strengthening of these walls. At the northeast angle was always one principal entrance, the approach to which was flanked by a wall over 100 feet long, departing from the main wall at a very acute angle, and so forcing an enemy to approach the entrance between two nearly parallel walls. The entrance, at the junction of the two walls, was protected by one of the polygonal towers mentioned above.[26] This may have been the very entrance through

[22] These walls are not unlike the earlier walls of the acropolis of the Bœotian Orchomenos, or those of Kastriza, near Joannina, which was supposed by Leake to be ancient Dodona.

[23] It is a question what Xerxes' fleet would have done to a restored Eretria as it passed along down the Euripos in plain sight of it.

[24] *Cf. CIA*, I, 339; THOUK., I. 114. [25] THOUK., VIII. 95.

[26] See the plan accompanying Mr. PICKARD'S article on the Topography of Eretria. There is a similar arrangement on the west side, where remains of two outlying towers are found, and a line of wall from one of these to a gate in the main enclosing-wall. From the other tower to the main wall we must assume also a line of wall, though it is now impossible to trace it.

which the Persians passed. Whether they broke it down or not, it has evidently been remodelled on a large scale, and made the one principal entrance. Two large towers, one at the corner of the main wall, and another at a lower level at the end of the projecting wall, make a strong defense of the approach to the long lane through which the enemy must still pass after having forced this approach. These towers are built much more in regular courses than the older towers, but even they could hardly be later than the Peloponnesian War. On the east side and also on the north side, a massive tower has been added at places where the wall seemed to need strengthening. Though all these added towers display the same general plan, the north tower is the most regular in construction, and so probably the last one built. It has no organic connection with the old wall, but is built up against it, while the east tower is built right across the wall. All this work seems to have been completed before the Macedonian period.

At the time of the formation of the Second Athenian Confederacy, 378 B. C., Eretria cheerfully joined it.[27] At this time Eretria had probably become, if not relatively as large as before its destruction, because the other cities of Greece had grown rapidly since the Persian Wars, yet absolutely as large. This may be inferred from the extent of the walls of the lower town. Along the bay, on which the modern village stands, and at some distance to the east of it, run these walls, with finely laid foundations, joining the acropolis to the harbor and enclosing a space large enough for a city of 40,000 inhabitants, as the old Greeks used to quarter themselves. We cannot suppose these walls to be a huge shell created for a population about to come, by a visionary like Otho, who laid out the modern village. Their structure would admit of referring them to the third century, but it is more likely that they belong to the fourth. To this same period we may assign the theatre, which was remodelled from time to time. After Leuktra and the breaking up of the Athenian Confederacy, the period of prosperity for Eretria was doubtless seriously impeded by the rapid changes in its foreign relations, which were always accompanied by factions at home.[28] In 366, a certain Themison, who was in control of Eretria, wrested Oropos from the

[27] DIODOR., XV. 30; *CIA*, II, 1, 17.

[28] For a vivid picture of the unhappy condition of Eubœa at this time, see CURTIUS, *Gesch. Griech.*, III, p. 589.

Athenians and turned it over to the Thebans.[29] When Philip began to play a controlling part in Greek affairs, it is certain that the Euboeans did not view his encroachments with that deathly anxiety with which Demosthenes watched them. They had already become somewhat accustomed to being a football between larger powers. There was always a large party in the different cities inclined to seek salvation through Philip. Perhaps it required as much fomenting on the part of Athens to keep the anti-Macedonian spirit alive as it cost Philip to lay it. From Philip's occupation of Amphipolis and his first serious break with the Athenians to his victory at Chaironeia, a period of nearly twenty years, Eretria can have had little settled quiet. It emerges into the light, but into the distorted light of the orations of Demosthenes and Aischines. Men, called by Demosthenes tyrants, followed one another in quick succession. These were, doubtless, men who obtained influence with their fellow citizens much in the same way that Perikles and Demosthenes obtained it at Athens. Sometimes, however, they may have owed their elevation to their influence with the foreign power. Of these so called tyrants, Themison and Kleitarchos[30] were Philip's men; Menestratos[31] guided affairs for a while in the interest of Athens. Ploutarchos, on whom the Athenians counted, proved to be their worst enemy, abandoning them almost to their ruin in the battle of Tamynai, 350 B. C., to which he had invited them as allies to dispossess his rival Kleitarchos and win the city for themselves.[32] This second treachery of Eretria, from which the Athenians escaped only by the presence of mind and the masterly generalship of Phokion, must have given the Eretrians a bad name at Athens. Yet in 340 B. C. we find Athens, in a magnificent burst of enthusiasm evoked by Demosthenes, driving out the last and worst of the tyrants, Kleitarchos, and freeing Eretria for the last time.[33]

In Demosthenes' reference to Eretrian affairs, frequent mention is made of Porthmos.[34] This seems to have been some harbor of Eretrian territory, perhaps identical with the present port of Aliveri, the

[29] *Cf.* DEM., XVIII. 99, AISCHIN., III. 85. In 357 B. C. the Athenians "freed" Euboia, as they called it; *i. e.*, they once more obtained a controlling influence, by breaking down the power of Thebes in the island by an expedition suggested by Timotheos and participated in by Demosthenes: DEM., XVIII. 99. Probably Eretria shared in the benefits of this deliverance, whatever they were.

[30] DEM., IX. 57 f. [31] DEM., XXIII. 124.

[32] AISCHIN., III. 86 ff; PLUTARCH, *Phok.*, 12 f.

[33] DEM., XVIII. 87; DIODOR., XVI. 74. [34] DEM., IX. 33, 58; XVIII. 71; XIX. 87.

town of Aliveri corresponding to Tamynai.[35] But what we read in some commentaries: "Porthmos was *the* harbor of Eretria," is certainly nonsense. Eretria had a good harbor of its own immediately under its own walls. So complete was its identity with the city that it could hardly be possible that it should bear a separate name.

It must have been almost a comfort to Eretria and the rest of Euboia when they were at last landed in the Macedonian camp, and knew where they were. So well content were the Eretrians, that when the Macedonians showed signs of falling before the Romans, they were in no haste to change masters. The report which Livy (XXII. 16) gives of the stubborn resistance here offered to the combined fleets of Attalos, the Romans, and the Rhodians, indicates no falling off in valor since the days when the Persians were before the gates; while the great number of statues and paintings (*plura quam pro urbis magnitudine*), taken by the conquerors, speaks well for the refinement of the city under Macedonian rule. It had not, even in former days, been wholly neglected by the Muses and Graces. The poet Achaios was a native of Eretria,[36] even if greater Athens claimed him as hers in his later years. Here also was a school of philosophy, founded by Menedemos, a disciple of Plato.[37] The Macedonian period was a good time for the philosophers to sit and think.

At about the beginning of the Macedonian period we find Eretria beginning to wrestle with its hydra, the great swamp on the east side of the town. In an inscription discovered at Chalkis and published in the Ἐφημερὶς Ἀρχαιολογική, 1869, p. 1 ff., it is recorded that a certain Chairephanes agrees to drain the marsh (λίμνη) in at most four years. For this he was to have the use of the recovered land for ten years at an annual rent of thirty talents. The editor of the inscription, Eustratiades, puts its date at 340–278 B. C. At any rate, it was of a time when the city was still independent. The βουλή and the δῆμος appear as in possession of authority.

Under Roman dominion Eretria continued to flourish. At the time of Augustus it was still the second city of Euboia.[38] It was nominally free, too, after the battle of Kynoskephalai.[39] If actually under the Roman rule, it at least enjoyed the privilege of being freed from that of Athens. There is one wall on the acropolis which, by the presence of mortar, is distinctly marked as Roman. This is the cross-wall high

[35] STRABO, p. 448.
[36] ATHENAIOS, X, p. 251, C.
[37] ATHENAIOS, II, p. 55, D.
[38] STRABO, p. 446.
[39] POLYB., XVIII. 30.

up on the hill.[40] There are also several repaired places of uncertain date in the main wall, some of them most likely of the Byzantine time.

In the Byzantine period Eretria may be said to have no history. It is with a real sense of loss that we find the half dozen lines devoted to Eretria in Stephanos of Byzantion largely taken up in telling how to form and decline the gentile nouns. It may have been prosperous for a long time after its records cease for us. Indeed, the numerous Byzantine graves, found often in layers above earlier ones, would seem to indicate that a great many people died in Eretria during that time. Whether at last the city perished by the breath of its own pestilential bogs or by some unnamed incursion of barbarians, we cannot tell. At any rate, it seems not to have played any rôle beside Chalkis in the wars of the Turks and Venetians.

The attempt of King Otho to revive an ancient city on the site of the lower town was a fight against nature. The brave Psariots could fight the Turks, but fever-bogs conquered them; and now the wide streets are given up to grass, and the empty houses stand deep in water in winter and spring. The Naval School, looming up above the other houses, looks mournful with its windowless and roofless walls. In spite of the visionary scheme of the king, in another century the site will probably be again as desolate as that of Eretria's ancient ally, Miletos.

RUFUS B. RICHARDSON.

II. INSCRIPTIONS DISCOVERED AT ERETRIA, 1891.

1. ▒ I O T H [B]*ιότη*
▒ΡΙΣΤΟΤΕΛΟΥ [Ἀ]*ριστοτέλου*

On a fragment of a marble stele 55 × 42 centimetres, broken at the bottom. The letters, 2 centimetres high, are neatly cut with almost imperceptible apices. The distinctive letters for forming an accurate judgment as to the date of the inscription are wanting, but neither the form of the genitive in *ου* nor the slight curve in the horizontal lines of the letters necessitates putting it later than the third century B. C. This inscription gains an importance hardly to be ascribed to any of the other thirty epitaphs discovered, owing to the possibility (one can hardly claim more than that) of some connection with the great Aristotle, who died at Chalkis. The elegance of the marble tomb in which it was found, apparently the finest in

[40] See plan with Mr. Pickard's article.

Eretria, the city of tombs, indicates a person of distinction. Some signs in the objects found in one of the graves might even be thought to point to the philosopher. The inscription falls in well enough with this hypothesis, which does not imply that the Aristotle of this inscription was the philosopher himself. No tradition brings Aristotle nearer to Eretria than that which puts his death at Chalkis; but the miles and miles of graves, in many places arranged in strata three deep, suggest, even if they do not prove, that Eretria was a favorite burial-place for non-residents. Four of the inscriptions discovered by the American School are for natives of other towns: *cf.* Nos. 11, 13, 18, 31.

The name Βιότη occurs in *CIG*, II, 3143 and 3227.

The following four inscriptions were also found at the same place, within and without the marble mausoleum. The slabs on which they are cut are plain gravestones requiring no minute description.

2. ΚΛΕΑΓΟΡΗ Κλεαγόρη
ΛΕΠΤΙΝ▒Υ Λεπτίν[ο]υ

The ends of the letters are generally crossed. The Ionic η appears also in No. 20.

3. ΑΠΟΛΛΩΝΙΟΣ Ἀπολλώνιος
ΑΠΟΛΛΟΔΩΡΟΥ Ἀπολλοδώρου

4. A fragment found near the east wall of the mausoleum.

ΑΡΧΙ Ϻ Ἀρχιμ[ήδης]
ΑΝΤΙΔΣ Ἀντιδώ[ρου]

5. ΕΡΓΑΣΙΩΝ Ἐργασίων
ΒΙΟΤΤΟΥ Βιόττου

This is perhaps the latest of all the inscriptions discovered. *Cf.* No. 31. The letters have apices, and the ω is much smaller than the adjacent letters. The name Βιόττου recalls Βιότη of No. 1. The double τ can hardly be distinctively Bœotian, as the name has the same form in *CIG*, I, 223 and 621, and the former of these at least is Athenian. Βίοττος occurs several times in the Eretrian inscriptions of Ἐφημ. Ἀρχ., 1869 and 1887.

6. ΚΛΕΟΦΟΙΝΙΞ Κλεοφοῖνιξ

This and the following numbers were found about one-third of a mile east of the city-wall in a nest of graves on the property of Belisarios.

This inscription is on a fine stele terminating in a beautifully carved anthemion, and bearing a large rosette under the inscription and on each of the sides of the stele, which is about 6 inches thick and of pure white marble. The part remaining of the stele, the lower part being now broken away, is about five feet long. Its width is about 0.76 m. The letters, apart from O, which is smaller, are 4 centimetres high, and are free from apices. This is probably the oldest of all the sepulchral inscriptions discovered, and is at least as early as the fourth century B. C. The stone when found formed the side of a grave of a somewhat late period. It may have belonged originally to a grave near by, in which were found several white lekythoi. The Ξ is the letter which most distinctly bears witness to an early date. The same form is found on a stone now lying in the museum at Eretria inscribed ΞENAPET. The name Κλεοφοῖνιξ appears to be new.

The other stones discovered at the same place are plain, most of them of marble, some more or less broken, and none deserving a minute description as to form.

7.	ΚΤΗΡΙΛΛΑ ΔΕΡΚΥΛΙΔΟΥ	Κτήριλλα Δερκυλίδου

This is mainly interesting as showing perhaps in Κτήριλλα for Κτήσιλλα an example of the rhotacism for which Strabo (p. 448) says the Eretrians were noted, and which betrayed their connection with Elis. This rhotacism at Eretria is now fully assured by the inscriptions in Ἐφημ. Ἀρχ., 1890, pp. 200 *seq.*

8.	.ΕΛΙΤΗ .ΕΡΚΥΛΙΔΟΥ	[Μ]ελίτη [Δ]ερκυλίδου

The father's name is of course the same as in the preceding number.

9.	ΟΝΗΣΩ	Ὀνησώ
10.	ΓΙΣΤΗ	Πίστη
11.	...ΙΜΟΝΗ ΓΑΡΑΜΟΝΟ. ΗΡΑΚΛΕΩΤΗΣ	[Περ]ιμόνη Παράμονο[ς] Ἡρακλεώτης.

For Παράμονος *cf.* No. 29. Παραμόνη occurs on a stone in the museum at Eretria. The name was a favorite in Boiotia, and occurs on the dedication-stele found by the American School in 1890 at Plataia.

12. ΚΛΕΙΤΟΜΑΧΗ Κλειτομάχη
ΣΙΜΥΛΟΥ Σιμύλου

Letters with apices, Σ somewhat divergent and curved. The second M is nearly upright. These names occur in the same order on a stele in the museum, with an anthemion above and two rosettes below the inscription, which stele has a form very similar to that containing No. 6, by which, however, it is surpassed somewhat in elegance.

13. . . ΛΕΜΩΝ [Πο]λέμων
. . . ΡΤΑΤΟΥ [Ὑπε]ρτάτου
. ΑΣΣΑΝΔΡΕΥΣ [Κ]ασσανδρεύς.

Κασσάνδρεια was the city founded on the site of old Poteidaia.

14. ΣΥΡΟΣ Σύρος

Cf. ΣΥΡΑ on the Plataian stele alluded to above (under No. 11).

15. ΜΕΛΗΤ . Σ Μέλητ[ο]ς
ΙΙΛΙΝ . Υ [Φ]ιλίν[ο]υ.

The O as well as the round part of the Φ were never cut. The stone is perfectly smooth where the incisions would come. Perhaps the workman deferred his round work on account of its greater difficulty, and then forgot it, or possibly used paint.

16. ΑΛΛ
ΤΑΤ

On a small fragment broken at both sides.

17. ΔΙΩΝ Δίων

18. ΔΙΟΤΕΙΜΑ Διοτείμα
ΜΗΝΟΓΕΝΟΥ Μηνογένου
ΘΗΒΑΙΑ Θηβαία
ΧΡΗ . . . χρη[στή]
ΧΑΙΡΕ χαῖρε

19. ΣΩΣΙΒΙΟΣ Σωσίβιος
ΣΩΣΙΚΛΕΟΥΣ Σωσικλέους

20. ΙΩΒΙΗ Ζωβίη

Note the form Ι (ζ) and the Ionism in the termination, for which *cf.* No. 2.

21.	ΑΡΙΣΤΟΜΗΔΗΣ ΑΡΙΣΤΟΜΑΧΟΥ	Ἀριστομήδης Ἀριστομάχου
22.	ΝΙΚ ΜΟΚΡΑΤΟ	

The stone is an irregular piece, and the restoration uncertain. The same may be said of (No. 23):

23.	ΛΑ ΝΟΣ	
24.	ΑΠΟΛΛΩΝΙΟΣ	Ἀπολλώνιος
25.	ΔΩΡΙΕΥ. ΔΙΟΓΕΝΟ.	Δωριεὺ[ς] Διογένο[υς]
26.	ΑΓΧΙΑΡΟΣ	Ἀγχίαρος
27.	ΠΡΩΤΥΛΛΑ	Πρωτύλλα
28.	ΔΗΜΑΡΕΤΗ	Δημαρέτη

This is on a marble larger and finer than most of the others, with elaborate mouldings at the top. The letters are large, 4 centimetres high.

29.	ΠΑΡΑΜΟΝΟΣ ΚΕΡΔΩΝΟΣ	Παράμονος Κέρδωνος

Cf. No. 11.

30.	.ΥΡΡΙΑϵ ΧΡΗϵΤΟϵ	[Π]υρρίας χρηστός

Note O smaller than the other letters; ϵ divergent. Letters handsome and somewhat enlarged at ends of lines.

31.	ΚΑΡΠΟΣ ΒΑΡΝΑΝΑΙΟΥ ΑΝΤΙΟΧΕΥΣ	Κάρπος Βαρναναίου Ἀντιοχεύς

This inscription, though more rudely cut, shares with No. 5 the broken-barred A and the extravagant apices, and apparently belongs to the Roman period. The greater part of the other inscriptions probably fall in the second century, B. C.

The name Βαρναναῖος occurs in a Delian (Rheneian) inscription, *CIG*, II, Add. 2322, b. 58., and is explained by Boeckh as Semitic "Bar," compounded with some other word. He compares Βαρναῖος,

CIG, II, 2319, who is there called Τύριος. For Tyrians at Delos, *cf. CIG*, II, 2271 and 2290.

Besides these inscriptions there is one, probably to be included in a collection about to be published by a member of the German Archæological Institute, to which a passing word may be given. This is on a piece of marble walled into a church just built, still lacking the roof, on the site of an older one at the south foot of the hill Kotroni, about a mile east of the acropolis of Eretria. Just about on this spot probably stood the most sacred temple of the Eretrian territory—that of Artemis Amarysia.

The inscription reads:

. . OY . . . XOϹ	[ΠΛ]ού[ταρ]χος
. . OY . APXOY	[ΠΛ]ου[τ]άρχου

It will be remembered that there is a Ploutarchos of Eretria who plays in Demosthenes an unenviable rôle in betraying his city into the hands of Philip. *Cf.* Dem., IX. 57. In Aischines III. 86, the same personage appears as a traitor to the Athenians in the battle of Tamynai. He was probably the most prominent citizen of Eretria at this time, in point of wealth and influence. His espousal of the cause of Macedonia gave him a bad name with the Athenians.

The unlikelihood that there should be in a small city like Eretria more than one family in which Ploutarchos would be used as a name, encourages the supposition that this tombstone belonged to this Ploutarchos or to some member of his family.

Another grave-inscription, found about 7 kilometres east of the city, and about 1½ kilometre back from the shore, has an interest beyond any other of its kind discovered in Eretria. It is on a slab of bluish marble 0.75 × 0.35, and 0.17 thick, with a slightly raised border at the top. A peasant, who showed it to me with an air of great mystery, after leading me through the bushes for more than an hour, allowed me to copy it, as it lay on edge up against a hovel occupied by another peasant. At the time (February 27, 1891) I was told that it had been taken one month before from a tomb which bore marks of having recently been opened, about 300 feet from the house. I could, however, ascertain nothing as to the contents of the tomb, which was a large one, 8 feet square, nor as to the excavators of it. Subsequently I visited the place again, finding it with great difficulty, and took three squeezes;

but, as the occupant of the house was absent, I could elicit no further information.

The inscription reads as follows:

32. .... ΕΔΙΟΔΩΡΟΥΔΙ... ΝΕΣΦΥΣΔΙΚΑΙΟΣΚΑΙΕΥΣΕΒΗΣ
. ΙΘΕΟΣΕΣΘΗΓΗΚΑΓΩΘΕΟΣΕΙΜΙΔΙΚΑΙΩΣ
ΕΚΓΗΣΓΑΡΒΛΑΣΤΩΝΓΕΝΟΜΗΝΝΕΚΡΟΣΕΓΔΕΝΕΚΡΟΥΓΗ
..............ΔΙΟΓΕΝΗΣ..........

[Χαῖρ]ε, Διοδώρου Δι[όγε]νες, φὺς δίκαιος καὶ εὐσεβής.
[ε]ἰ θεὸς ἔσθ' ἡ γῆ κἀγὼ θεὸς εἰμι δικαίως·
ἐκ γῆς γὰρ βλαστῶν γενόμην νεκρὸς ἐγ δὲ νεκροῦ γῆ.
Διογένης

In the first line the dead is addressed with the usual fond farewell. In the last two lines he is made to give his reply, which is a curious argument. "If earth is a goddess, I surely am a god, for I sprung from earth, and became a corpse, and from a corpse earth again." This is cold comfort. Bryant's

> "Earth, that nourished thee, shall claim
> Thy growth to be resolved to earth again,"[41]

is serious and plain, but the sentiment of our inscription seems much like a jest on a serious subject. Inscriptions could hardly have taken this tone before the Hellenistic period. The play is an approach to the Anacreontic drinking song, beginning, Ἡ *γῆ μέλαινα πίνει.* Though Ge was a rather transparent personification among the gods, and liberties might be taken with her which one did not feel authorized to take with other divinities, this trivial vein is rather characteristic of an age that had lost its faith. Of course, apart from the epigraphic evidence, the lack of any expression of hope would forbid making it a Christian epitaph.

Since the last two lines are hexameters, it would seem likely that the first was also intended to be such. The first foot, *Χαῖρε Δι*, might pass, but in that case the next foot would be impossible. If we take the well-nigh impossible foot, *Χαῖρε Διō*, to start with, we can then run through four good feet, but we come next to *δίκαιος*, which refuses to conform to the exigencies of the verse, and besides we have more than six feet. The last three syllables refuse to make a hexameter ending. In spite of all the liberties taken with hexameters in epitaphs (see Al-

[41] *Cf.* KAIBEL, *Epigrammata Græca*, No. 606.

len in *Papers of the American School of Classical Studies at Athens*, vol. IV, p. 45 *seq.*), it is venturesome to try to make anything more than plain prose out of this first line.

There was once a fourth line of the inscription, but it was subsequently entirely erased, except the name, Διογένης. The cutting may have been done by more unskilful hands than some others of the same age; but even with this allowance the stone seemed to bear upon its face marks of antiquity. Ϲ and Μ are very much spread out; Ο and Θ are smaller than the other letters.

Besides the grave-inscriptions, three small fragments apparently of a *psephisma* were found in the excavations about the stage in the theatre. The forms of the letters seem to make the inscription as early as the fourth century. The following is a copy:

33.

```
                Θ
    ΑΝΔΕ . . . Ν
    ΤΩΝΔ  . . ΔΙ
    ΓΟΛΕ ΜΑΡΧ
5.  ΗΜΗΝ ΙΑΙΤ
    ΤΟΘΕΑΤΡΟΝ
    ΩΛΕΙΝΩϹΤ
    ΙΝΕ.ΤΟΟ
        ΟΛΕΜ
10.     ΟΥΝΤ
          ΟΙΕ
```

Between Ν and Α, line 5, if the first letter is *iota*, there is room for one more letter in the break.

Very little can be made out of this inscription, except πολέμαρχ[ος] line 4, τὸ θέατρον line 6, perhaps [π]ωλεῖν ὥστ[ε] line 7, [πωλε]ῖν ε[ἰς] τὸ θ[έατρον] line 8, [π]ολέμ[αρχος] line 9.

Possibly the inscription has reference to the sale of some property by an officer called polemarch in the theatre, or for some use connected with the theatre.

RUFUS B. RICHARDSON.

III. EXCAVATIONS IN THE THEATRE OF ERETRIA.

At the end of January, 1891, Dr. Waldstein and I went to Eretria, and, as soon as the weather permitted, the excavation of the theatre there being placed in my charge by Dr. Waldstein, work was begun.

The foundations of the stage-building that Ludwig Ross had traced in 1833 disappeared after the settlement of the Psariani in 1836. Here and there single stones appeared above the ground, but the position of no walls could be located with certainty. The fact, however, that the ground level on the site of the stage-building was between three and four metres above that of the orchestra, supplied a hopeful sign that, at least in some parts, walls of importance would be found.

When the campaign closed on March 18, we had worked 27¾ days, with an average of 19 men, including two cart-drivers. For removing the earth we relied especially on carts and wheel-barrows, as baskets proved less suitable for our purpose.

The eastern wall was cleared first, and it was a great disappointment to find that the foundation was the only course remaining; but it was reassuring soon to discover that at least the front wall went deep. When the work had reached this point it was found practicable to divide the men into two bodies. One party removed the earth from the front of the orchestra, and as far back as the middle of the stage-building. The other set cleared the southern half of the stage-building. In this way, the two parties keeping nearly the same pace, the entire structure was laid bare, proceeding from east to west. The exact correspondence between the two sides was striking, when, after weeks of labor and study, the second half was found minutely to reproduce the first, and we could hence estimate with certainty the location of the different walls.

On February 14, while cutting a broad trench along the double front wall (ΘΘ and ΗΗ), which we shall call the *scenæ frons*, the workmen came upon an opening (Ω) in the wall about two metres wide. On following this up, it proved to have a vaulted roof in good preservation. Soon the workmen on the other side, more than fourteen metres away, struck an opening into the ground. Here the keystone and a few of the upper voussoirs were gone. Grave-searchers, with whom this region abounds, imagining that there was a grave below, had broken through the vault. The clearing of this large passage, which was entirely filled with earth and 2.95 m. deep, occupied a great deal of time. Owing to the limited space, only two men could be employed, and, from the construction, it had to be cleared almost entirely from the north end. At length, on the afternoon of March 12, the way was open from one end to the other. The earth, from the position of the strata, had evidently sifted in from the two ends. Heaps of

marble chippings lay at the northern end of the vault. But these were only the refuse of the great mass of marble that had found its way to the lime-kilns, of which there are two in the immediate neighborhood. Among these chippings were several fragments of statues and countless pieces from the marble proscenium. Immediately in front of the opening to this vaulted passage were found fragments of a balustrade in poros.

On March 5 and 6, when it became evident that no stoa was immediately connected with the theatre, on the suggestion of Dr. Waldstein I sank a trench from chamber IV in the direction of some ruins toward the southwest. Nothing was found in the trench, but upon clearing the ruins they were seen to be singularly solid foundations, 7.50 m. × 5.40 m., possibly having connection with other foundations. In the first place the ground had been prepared, then large blocks, carefully fitted, had been laid to form a double floor. No indication was found of the purpose of these foundations, but the solidity of the work suggests that a temple stood here—perhaps that of Dionysos. Along the walls were found fragments of marble including a lion's paw.

To examine the character of the retaining-wall HH on the inside, a big hole was cut along the wall down to the foundation. Along the upper part of the wall lay miscellaneous rubbish and architectural members in poros. Below, the foundation broadened to a width of 1.62 m. The retaining-wall exhibits the same roughness and irregularity on both sides, from which the conclusion is drawn that neither side was ever visible.

On March 13, while clearing between the proscenium stylobate and the *scenæ frons*, I came upon the opening to the underground passage of the orchestra. The descent into this lies a little to the east of the mouth of the vaulted passage. Over the opening were found two fragments of a marble Ionic architrave.

On March 14, two interesting discoveries were made. Resting on the *scenæ frons*, but not *in situ*, I found a poros block with a metope in the middle and a triglyph on either side. It appears to belong to a double-triglyph system, and is important for determining the intercolumniation of a row of columns that may have surmounted the *scenæ frons*. Whether this wall bore a range of columns or was continued up as a plain wall, the frieze block, both from its material and from the position in which it was found must have belonged to it. The width of the metope is 0.48 m. and that of the triglyphs 0.33 m.,

while the height is 0.44 m. The second discovery was a drain found between the oblique walls on the east side.

The digging on the *skene* varied in depth from 0.80 m. to 1.10 m., while immediately in front of the *scenæ frons* it reached the depth of 2.50 m., and even more at the east and west ends, the depth gradually diminishing toward the orchestra. The mass of accumulated earth in front of the *scenæ frons* was no doubt due to the fact that when the facing-wall had been taken away in a large measure, the weight of the earth behind precipitated the upper part of the retaining-wall and lodged in front. There is reason to believe that the ground on the site of the present orchestra as well as behind the retaining-wall had originally the level of the five chambers, that of the surrounding ground. On the surface we found the usual black earth, under it a soft clay, and lastly we came upon the hard virgin soil. About the older foundations the soft clay reached deeper, showing that trenches had been cut before the foundation was laid.

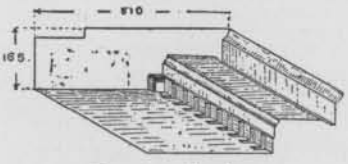


FIG. 1.—*Cornice.*

FIG. 2.—*Anthemion.*

We found architectural fragments both of poros and of marble. Of poros in the Doric order were found several drums, a capital, triglyphs, and a cornice; also of poros, in the Ionic order, an entire semi-column, and four capitals almost completely preserved, but of a late style. This semi-column now serves as a sill in the entrance to chamber II; it has eight flutes and is 2.36 m. long, 0.34 m. wide and 0.47 thick. The volutes of the capital belonging to it spring out of an acanthus the sprays of which join in front under an egg-and-dart moulding. The marble fragments were found especially in the neighborhood of the proscenium, and evidently belong to it. Of marble in the Doric order we found a part of a channeled semi-column and corresponding tri-

glyphs and cornice. In the Ionic order we found a part of a fluted semi-column, an architrave and cornices of two types, with dentils (*Fig. 1*), and without them. Two anthemia of marble (*Fig. 2*) and several of terracotta were discovered, besides Roman lamps, weights, a discus, and some corroded coins.

IV. THE STAGE-BUILDING OF THE THEATRE OF ERETRIA.

In dealing with masonry at Eretria there are peculiar difficulties in the way. Little is known about its monuments and style of art, and, being difficult of access it has seldom been visited by archæologists. On account of its out-of-the-way position, rules of construction which have been established as archæological landmarks at Athens and elsewhere, fail utterly when applied here. Certain forms of masonry, for example, seem to have obtained at Eretria long after they had died out in many other places. Not only the same kind of stone, but even blocks cut to the same size, appear in buildings of different epochs. At the same time when clamps and other usual criteria of age are found in those parts only which on their face bear the stamp of a later age, one is entirely thrown back upon the position of the walls to solve their purpose and place in point of date.

The *cavea* of the theatre faces the south, and the stage-buildings stand east and west, deviating only six degrees from that line, the west end being six degrees north of west, and the east end the same number of degrees south of east. The situation of the theatre to the southwest of the acropolis, on a spot where no benefit could be derived from a slope to support the rising tiers of seats, is likely to be connected with the fact that there was a sanctuary of Dionysos in the neighborhood. The solid foundations in the vicinity, mentioned above, may prove to be those of a temple of the wine-god. If in choosing the sites for their theatres the ancients had an eye to the beauty of scenery, it may be noticed that sitting in the theatre you are facing the Euripos, while beyond are the hills of Attika and Boiotia with Parnes and Helikon in the distance. The original surface of the ground appears to have been almost level, rising a little toward the northwest and falling into a slight depression toward the southeast.

From the sectional plan giving the elevation of the different parts, we see how the two front walls II and ΘΟΗΗ have their foundations a little under the level of the orchestra, while the bases and the two remoter walls BB and AA lie fully three metres higher. In explain-

ing the walls I shall follow the historical development as being at the same time the true order and in this case the simplest.

Turning to the PLAN, it appears at a glance that there exists a close resemblance in plan between the two parts of the stage-building divided by the great central passage ΩΩ. This vaulted passage, the bottom of which is on a level with the orchestra, lies under the floor-surface of the stage-building. Over the vault and within the south wall we have a chamber (III) 6.33 m. by 3.90 m. This is flanked on either side by chambers (II and IV) of the same size, and those again by long and narrow chambers (I and V) extending five metres and a half beyond the others toward the front. The outline (AAΓΔBBEZ) is a long and narrow building with wings projecting forward. The foundation of this building consists of coarse poros blocks averaging 1.30 m. in length, 0.68 m. in width and 0.46 m. in height. The blocks are laid lengthwise except in the south wall of chambers I and II. At this point, the ground being lower, the foundation consists of two courses, and, to obtain greater solidity, the blocks in one lie crosswise and are moreover supported by buttresses where the partition-walls meet the south wall. As the ground gradually rises toward the west, the foundations go deeper. The stones are well cut and fitted, though no great pains were taken to form an even surface in foundations intended to be hidden underground. The break in the middle of the walls is of a later date, when the vaulted passage was constructed. There are openings (γγ) into the flank chambers on each side. Here the foundation is interrupted for a distance of 1.30 m. The ends of the adjoining blocks are cut down as if to receive a sill. At the corner beyond the door, and also between the door and the north wall of the three chambers, are signs of piers and antæ, δδδδ. Where the wall BB ends in the chambers on the flanks, the terminal blocks are placed at right angles. In line with these in the north wall of the same chambers, corresponding blocks εεεε are similarly placed. These blocks may have been parts of cross-walls in these positions.

On the greater part of these foundations there remains a course of fine polygonal masonry 0.48 m. wide. The jointings are good and the work is done with a great deal of care. Wherever it is still standing it is 0.50 m. high. The material is a white, hard limestone. If there were faults in the stones or pieces roughly broken off, the edges were made regular and other stones fitted in. The polygonal wall indicated in black is still standing on all the partition walls, on

the north wall, at the southwest corner, and there are traces of it on the south and east walls. The restored portions of it are indicated in a lighter shade, with single-hatched lines. No trace appears on the foundations of the projecting chambers. No doubt it stood here also, but was removed during the reconstruction.

I have mentioned the doors into the flank chambers. There are also entrances into the three middle chambers from the front. The entrance to chamber III is in the middle of the wall, while in II and IV it is thrown to one side. The side openings are 3.33 m. and 3.38 m. wide. The middle opening is somewhat less, but here the stones have now fallen forward: we may be justified in assuming the same width for this also. On both sides of the openings lie quadrangular blocks of bluish marble. On the outer side of the side doors these blocks are 0.41 m. long and 0.20 m. high. The adjacent blocks of the wall are cut in such a way as partly to overlap the marble blocks and hold them firm. On these blocks stood the παραστάδες or door-jambs. In the west door the lower part of one is still standing. It is an upright poros block broken off at the present height of the wall. The existing sills, which lie at about the height of the six bases in front and are moulded, are later. At the ends of the sills, holes are cut in to receive the wooden doorposts, and a groove runs along the upper side. The inside edge, remaining at the middle for the distance of nearly one metre and a half, is cut away at the ends.

Such are the remains of what I consider the oldest stage-building of which there is any trace in the Eretrian theatre. In its main lines it has the same arrangement as the stage-building of Lykourgos at Athens: two parallel walls behind and towerlike structures on the flanks. The front wall has three doors and the *paraskenia* have one each. The present orchestra lies too far away and too deep to have been that of this stage-building. The orchestra corresponding to this structure must have been on a level with the doors and must have extended close up to the building. The supposed position of this orchestra is indicated on the plan by a dotted circle. As no vestiges remain, both the orchestra and the seats were presumably of primitive construction. Near one of the stage-walls were found a few words of a fourth-century inscription referring to a theatre. This building being the oldest on the site, and answering also in plan to a theatre of the fourth century, we identify it with that of the inscription. There appears to be little doubt that the remains we have just described existed long before the

other parts were added. For, taken separately, the old stage-building has a clear purpose, but considered in connection with the buildings in front, it loses its meaning. The new buildings in part destroyed the old and in part left its foundations undisturbed, as they lay deeper than the later walls.

Whatever the causes or the motives, a new and more elaborate theatre was erected, taking the old building partly into account and retaining its orientation. The new theatre might have been built against the acropolis hill, but the same reasons that placed the old below in the plain, kept the new one there now. When it was once decided that the theatre should remain on the same site, there were evident advantages in sinking the orchestra lower than the stage-building. It would simplify the substructure of the *cavea*, and would give an elevated *scenæ frons* with less labor and expense. So the orchestra was lowered about 3.50 m. and the earth removed was used to build up the *cavea*. Against the bank of earth toward the *skene* a strong retaining-wall HH was built. The floor of the new building lies a little higher than that of the old one. The old floor-level of the chambers is given by the sills, the cuts for which still appear in the foundation-walls. The new sills are several centimetres higher, and these indicate the level of the new floor. The six column-bases supply corresponding evidence. The wide intercolumniation, and the fact that they are equally distant from BB and ΘΘ, show that they form an inner order and that we can assume the same level on both sides. These bases bore the columns that upheld the roof. That they belong to the second structure is shown by the fact that they in a measure obstruct the passages γγ, from which it also appears that they were placed in position at a time when those passages were no longer used. It is important to fix the level of the pavement, as this will help us to arrive at the height of the front wall. But having the height of the bases, 3.83 m., we have also that of the front wall, which must necessarily be the same. Whether the front wall was continued as a solid wall or whether it supported a series of columns, we have so far not been able to determine, as the architectural members found could be fitted to either theory.

Communication with the orchestra being difficult over a wall 3.83 m. high, access was afforded by an underground vault (ΩΩ) passing under the *skene* from behind the building. At the southern or ex-

terior end, steps lead down to the level of the orchestra. *Fig. 3* shows a section through the vaulted passage in the line of the column-bases. On the inside the passage is 1.98 m. wide and 2.95 m. high, and its length is the depth of the stage-building, 14.55 m. It is built of large poros blocks which were originally smooth-dressed on the exposed face, but now the surface is broken and has crumbled from dampness and exposure. The blocks have an average length of 1.36 m., and the three lower courses a height of 0.64 m., while the three upper courses average 0.46 m., and the keystone 0.44 m. Though the three lower courses have an inward inclination of 0.08 m. the arch proper begins with the fourth course. Allowing the slight inclination

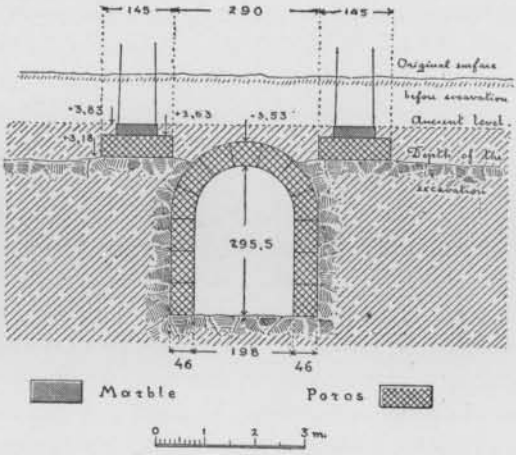


FIG. 3.—*Vaulted Passage.*

to be due to pressure exerted in the lapse of time, the upper courses and the keystone would form a semi-circle with a radius of about 1.00 m. The joints are exact, though they do not correspond in alternate courses. The vault is entire for a distance of 7.40 m., having fallen in at both ends. That the vault is contemporaneous with the front wall or *scenæ frons*, is shown by the fact that the courses of the two are bonded together.

That this vaulted passage was a public entrance into the theatre is improbable, both because it is too narrow and because no necessity appears for an entrance in such a situation. Though the passage itself is 1.98 m. wide, the door opening into it from the orchestra is only

0.99 m. wide. Moreover the steps are steep and narrow—not such as we should expect where crowds were to ascend and descend. On the east side a *parodos* about 5 m. wide has been partly cleared, and on the other side will no doubt be found its counterpart. With ample *parodoi* on both sides of the *skene*, no reason is obvious for constructing a third access only 0.99 m. wide. In many theatres entrances are found from the level of the orchestra to the stage-building, and here, doubtless we have something of the same kind, only the passage lies under the surface owing to the elevated structure of the stage-building. Two solutions were open to the architect: the one a permanent stairway over the front wall, the other an opening through the wall and an underground passage; the latter solution was chosen perhaps because a stairway from the height of the front wall would necessarily project far into the orchestra.

The front wall consists in fact of two walls, the retaining-wall HH and the facing-wall ΘΘ. The retaining-wall, not intended to be seen, is built of rough poros blocks of about the same dimensions as those in the foundations of the *skene*. Its present height is 2.39 m., or 2.335 m. above the level of the circle of the orchestra. That it was originally higher appears from the fact that a great number of similar blocks were found lying in a line along the wall. It may have been as high as the bases, or, being merely a retaining-wall, it could have ended when it reached the surface of the ground. The roughness of the work is sufficient proof that this wall was never visible. There still remain in places as many as three courses of a facing-wall. The lowest course, which juts out 0.19 m. beyond the upper courses, is 0.64 m. high, and where the vaulted passage begins, the blocks are turned in at right angles in such a way that the blocks of the second course of the vault overlap them by one half. This shows that the two were constructed at the same time. The blocks of this course, too, are of the same size as those in the three lower courses of the vaulted passage. At the joints and along the upper edge are bevelled drafts. While the upper courses continue 0.59 m. beyond the retaining-wall and then at ΘΘ make a turn to the south at a slight angle, the lower course turns to the north (ΛI and KI) 8.885 m. from the vault and is then merged in other walls (IM and IN), which, at the same distance, make a similar turn toward the south. The second course of ΘΘ is of a finer poros, and is worked with extreme care. The joints are made with such exactness that they are not easily perceived. The course is 0.43 m. high and the blocks are as long as 2.42 m. and 2.62

m. Parts of a third course remain at the ends. The length of the wall ΘΘ is 26.20 m. Though the upper part of this wall has perished, it must have reached at least the level of the six bases. It is to be noticed that the second course of the wall ΘΘ is continued without foundation between K and Θ. At the other end, between Λ and Θ, the foundation is irregular and does not come out flush with the upper portions of the wall. Before reaching the oblique angles at ΘΘ, the wall extends for 0.59 m. unsmoothed, and there, probably, were the outer walls, ΘN and ΘM, of the *paraskenia*.

In the old *paraskenia* there remain angles of walls forming right angles, which in one limb, TH and ΠH, advance toward the front wall, and in the other, TΣ and ΠO, extend beyond the stage-building proper. On the west side, the wall TΣ appears to have extended at least 9.50 m. from the angle in the old *paraskenion*. It is not unlikely that the wall turned toward the north at about this point and joined the oblique wall PΘ, forming thus an irregular chamber similar to one in the same position in the theatre at Epidauros. On the east side only two stones were found of this extension beyond the old wall, but these were enough to show that it had once gone further. These walls are laid on the ground without foundations, and are a patchwork of all kinds of material, especially of stones from the polygonal wall. The inner surface is faced with fragments of marble, and a bit of stucco was found in one place. That this wall is later than the old *skene* appears, apart from its bad construction and lack of foundation, most clearly in that it cuts away a corner of the old flank chamber, too small for a separate room. What remains of the wall between the old *paraskenia* and the front wall is built of the usual poros blocks. On the east side these blocks are laid one upon another endwise, while on the west side the position of the blocks in adjacent courses alternates; but on both east and west sides the walls are built with an irregularity which shows that they were hidden underground. This is important, as it enables us to establish that the surface of the soil was approximately on a level with the bases, and we gain another argument for restoring the front wall ΘΘ to the same height. On the elevated part of the *skene* and in line with the cross-walls ΛI and KI stand two bases.

Within the irregular rooms at the sides, and parallel to the oblique walls, are two little structures the significance of which is not yet clear. Their parallel side walls are 0.46 m. apart, and there extended a marble slab from the outside upper edge to the inside bottom level, broad

enough to touch the two walls. The lower end of the slab rested on another marble block. Beneath the structure on the east side we found the drain; if there is a similar drain on the west side it has not yet been recognized. Our excavations closed before these structures could be fully examined. They seem however to be connected with the drainage-system. It may possibly be that the water from the roof of the stage-building was conducted to these points and hence escaped into the drains below. What may have existed between the oblique walls is not yet known, as our work has gone only a little beyond the oblique angles ΘM and ΘN. Here may have been ramps ascending to the proscenium, side by side with the *parodoi* into the orchestra, as at Sikyon and Epidauros.

The work of the second period, then, consisted in erecting a new *scenæ frons* with projecting structures or *paraskenia* at the ends. Instead of a series of chambers, we have in this new stage-building a wide hall divided by a longitudinal range of columns. Owing to the height of the front wall and the disposition of the *skene* and orchestra, access to the latter was gained under the floor of the stage-structure.

Finally we come to the last change, a change similar to that found in many other theatres—the erection of a columned front (II) between the two *paraskenia*. At the Amphiareion of Oropos this feature bears inscribed on the architrave the designation *προσκήνιον*. To arrive at the date of this construction at Eretria is not easy. At Athens the corresponding feature is known to have been built between Lykourgos and Nero, as it was torn down to be replaced by another dedicated to Dionysos Eleuthereus and the emperor Claudius Nero (?). Hence there it dates from the first century B. C., and the stage-building of Lykourgos must have stood for a considerable time unchanged. This date suits reasonably well in the other instances also. On a poros foundation lies a marble stylobate 19.77 m. long. At the ends are places for two antæ, and between are dowel-holes for twelve semi-columns. The total number fourteen recurs in several theatres, as at Assos and Delos. Across some of the dowel-holes can still be traced the small line marking the axis of the columns. The intercolumniation varies between 1.50 m. and 1.52 m. The square dowel-holes have the usual channels through which the lead was run in. A fragment of one of the columns, Doric and channeled, was found, but unfortunately very incomplete. The general design, however, can be determined from the examples in other theatres. Deep rebates were

cut behind to receive slabs or πίνακες, and the stylobate in some places was cut down so that the πίνακες should fit closely. The width of the stylobate is about 0.45 m., the inner side being rough. In the middle are traces of a double folding-door with oblong holes for the door-posts and circular ones for the pivots. Two smaller pivot-holes further back point to a wider door of some other period. Now in estimating the height of this proscenium we must remember that there was a door in the wall, which indicates sufficiently that the columns were at least upward of two metres high. Calculating the height of the columns and entablature from the few fragments found, it appears that the proscenium without the stylobate would reach a height of about 3.40 m., or the level of the bases on the *skene*. This height coincides with the rule of Vitruvius that the proscenium should not be less than ten and not more than twelve feet high. Vitruvius is evidently speaking of such proscenia as ours, and it is interesting to find this agreement. Among various pieces of an Ionic cornice, we found one with an angle corresponding to the angles M and N beyond the proscenium. So we have, apparently, a Doric proscenium continued on the sides in the Ionic order.

The fact that the stylobate was left rough on the inside shows that the ground or floor between it and the *scenæ frons* was of the same height. But the opening into the underground passage here lies much lower, and it appears to have been made with a lower level in view. The basement-course of the *scenæ frons* consisted, as has been said, of blocks 0.64 m. high, carefully worked and fitted, showing that it was exposed to view. But, if the floor reached the level of the *proscenium* stylobate, it must have covered 0.44 m., or more than two thirds, of this basement-course. In excavating we found near the lower edge of this basement a layer of gravel. This, as it corresponds with the level of the orchestra-circle and with the opening into the underground passage, I take to show the original level of the orchestra. With the building of the proscenium the level of the entire orchestra appears to have been raised. The stylobate is 0.20 m. high, the lower half of which was left rough and unfinished because it lay under the level of the orchestra and was not seen.

Where definite indications were lacking, the upper part of the *skene* is restored, on the plan, according to the proportions of similar structures.

Just beyond the eastern *paraskenion* the drain is found. Starting from the semicircular conduit on the east side and passing under the

parodos, it turns by the corner of the stage-building at an oblique angle to the southeast, in the direction where the ground is lowest. It is formed of rectangular pieces of red tile open above (*Fig. 4*), not fitted into one another, but set close end to end and bedded in the ground. The tiles are 0.63 m. long, 0.24 m. broad, and 0.265 high. The drain was covered with separate flat pieces a little wider than itself. The tiles are 0.03 m. thick.

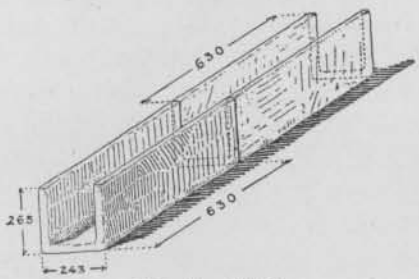


FIG. 4.—*Drain.*

In closing, I would observe that I came independently to the results set forth while directing the excavation of the theatre. It was no small delight to find, on my return to Athens, that Dr. Dörpfeld approved of the plans which I had drawn, and later, when he visited the theatre, that he corroborated my views, making changes only in minor details. At the same time I must not omit to mention the kindly assistance Dr. Dörpfeld has rendered me in several instances, and the friendly interest he has taken in the work.

ANDREW FOSSUM.

V. THE THEATRE AT ERETRIA. ORCHESTRA AND CAVEA.

In the work of the School at Athens at Eretria, Dr. Waldstein assigned to me the clearing of the *cavea*, orchestra, and *parodoi* of the theatre. This was pursued so far as to determine the level and extent of the orchestra, to follow the lowest row of seats and the bounding-curb of the orchestra from the middle to the eastern *analemma*, and to define, rather imperfectly, the eastern *parodos*. To this must be added the discovery of a most interesting underground passage, extending from about the centre of the orchestra to a point just within the later proscenium-wall. At Dr. Waldstein's suggestion, excavation was carried on also through the *débris* surrounding a lime-kiln near the theatre, but without result.

Work in the orchestra was begun on Feb. 24, with a trench a little more than 1 m. wide, perpendicular to the proscenium at its middle point. Very few fragments were found either in marble or in poros, until, on the second day, at a depth of about 0.70 m., two large poros

blocks came to light lying side by side at a slight angle in the direction of the trench. On digging further toward the stage, it was found that these two blocks made part of an unbroken line of poros, the covering, as it seemed, of a drain or passage of some kind. These stones were carefully laid and the whole structure was very well preserved. Only the corners were sometimes broken away, so that, at one point, the workmen could thrust their pick-handles through and down to the full length. Almost covering the open end of this passage was found a cornice-slab of marble; close by, fragments of marble triglyphs and dentils. When all these were cleared away the existence of a subterranean structure was made certain.

The work at the upper end of this main trench was carried considerably further before anything of importance was discovered. Only one or two blocks of poros and some small pieces of marble came to light. At length the workmen uncovered, at a depth of 1.05 m., what proved to be one of the seats of the lowest tier of the *cavea*. Very soon the line of poros curb bounding the arc of the orchestra was found, 0.20 m. further below the surface. Immediately below the first tier of seats was a broad step serving as a foot-rest for those who sat above, and between this and the curb was a sunken drain paved with poros. Just behind the first seat discovered was a flat, irregular marble slab of considerable size. Toward the west the line of seats was broken, and in digging further up the hill nothing more was found *in situ*. The *cavea*, here at least, was in an altogether ruinous condition, so that the main trench at this end was abandoned. At Dr. Waldstein's suggestion, the digging was now carried along the line of the first row of seats toward the east. A trench was sunk broad enough to include also the curb of the orchestra. All was in a fairly good state of preservation, only a block from the line of seats being missing now and then. A number of marble fragments were found, evidently belonging to thrones. The sunken drain proved to be divided at intervals by very ill-made and irregular cross-walls, resting on the poros bottom, and not quite reaching the level of the curb and the lowest step on either side. The end of the curb was reached some 5 m. before coming to the *analemma* of the *cavea*. At this point the curb was connected with the lowest step by a very good cross-wall of the same pattern and period with itself. Digging was carried for a short distance along the *analemma;* this was very much broken away, and the blocks which made it were heaped together with seats that had fallen from above. The wall of the *parodos*, so far as it was found extant at all, was yet more ruinous. I had

hoped to carry a trench from the orchestra to the uppermost rows of seats, but lack of time prevented this.

Meanwhile, the subterranean passage mentioned had been entirely cleared. The work had been necessarily slow, since in so confined a space only one man could dig at a time, and very awkwardly. Besides, the interior was a closely packed mass of architectural fragments, as drums of columns, with pottery, Roman lamps and other objects. A discovery of importance was made near the north end of this passage. Here the digging was carried more than 1 m. below the ancient level of the orchestra. At this depth part of a marble chair was found, imbedded among loose stones and smaller bits of marble; there was found also a rounded fragment of poros, belonging to the base either of a column or of a statue.

THE CAVEA.

In 1833, according to Ross,[1] some of the stone seats of the *cavea* were still to be seen. He seems to imply that when he visited Eretria eight years later these had disappeared, appropriated by the new settlers as building-material. When our work began, at least two or three seats of the ordinary pattern lay above ground on the upper part of the slope. Nothing whatever was visible besides these, though the general form of the *cavea* was still very clearly marked. The seats were not laid on a natural slope, as is generally the case, but were supported by an artificial mound of earth as noted by Ross (*op. cit.*) This method of construction was rare in Greece proper, but obtained in the theatre at Mantineia, lately excavated by the French School.[2] Durm[3] mentions only the theatres at Alabanda (Asia Minor) and Mantineia as so constructed. More are enumerated by Müller,[4] but only in Macedonia and Asia Minor. Recently it has been found that the theatre at Megalopolis rested in part upon an artificial embankment.[5] The embankment at Mantineia was supported by a polygonal wall, and the theatre was made accessible from the rear by a system of external flights of steps; but no attempt could be made to ascertain whether this was also true at Eretria. The *cavea* opens toward the south in direct violation of Vitruvius' injunction;[6] but this is the case also at Athens and Syracuse.[7]

[1] *Wanderungen in Griechenland*, II, 117.
[2] *Bull. de corr. hellén.*, XIV, 248.
[3] *Baukunst der Griechen*, 211.
[4] *Bühnenalterthümer*, 30, n. 2.
[5] *Journal of Hellenic Studies*, XI, 294.
[6] *De Architectura*, V. 3. 2.
[7] GEPPERT, *Altgriechische Bühne*, 94.

At present the greatest height of the *cavea* above the orchestra-curb is 9.07 m.;[8] its diameter measured from the highest point of the mound on either side is 81 m.; measured from the lowest step on either side, 24.88 m. The structure forms an arc of 186°, or somewhat more than a half-circle, and is thus less by 24° than Vitruvius' fanciful model for Greek theatres. The curve seems a perfect one through an arc of 159°, *i. e.*, to the point where the curb terminates. It is then continued on a straight line, tangent to the arc at that point. This was a device often employed in Greek theatres[9] for the sake of the view of those who occupied the end seats. At Epidauros[10] the same purpose was accomplished by the use of a different centre and radius, thus making the inward curve at the wings less abrupt. The *analemma* uncovered is of the same poros stone used for the seats and throughout in the whole structure. The wall follows the upward inclination of the *cavea* and is 0.62 m. thick at the bottom, narrowing to 0.57 m. at the highest point reached in the digging. At its lower end the base of a stele was discovered, lying in a line with the lowest step of the *cavea* and so at an obtuse angle to the *analemma*. It is rectangular, 1.14 m. in length and 0.62 m. in width. The hole sunk in the upper face to receive the stele is 0.79 m. long, 0.135 m. wide, and 0.12 m. deep. Doubtless the stele bore an inscription relating to the building or rebuilding of the theatre. The lines of the *analemmata*, if prolonged, would meet in an obtuse angle at a point between the centre of the orchestra and the proscenium—another characteristic of the normal Greek theatre. The width of the east *parodos* is about 5 m. The proscenium in its prolongation toward the east bends away slightly, as at Epidauros and Oropos. But we could not make sure whether this prolonged line was parallel with the *analemma*, or whether, as is most frequently the case, the inclination was such that the *parodos* became wider as it approached the orchestra. Neither was it possible to determine whether the *parodos* was closed by a door or doors, such as were found at Oropos, Sikyon and Epidauros.[11]

The *cavea* is divided into eleven *cunei* ("wedges") by twelve flights of steps. This statement is founded on computation, for only

[8] I am glad to acknowledge my indebtedness, for many of these measurements and for helpful suggestions, to Mr. John Pickard of the American School.

[9] *Cf.* the theatre at Athens; for that at Peiraieus, see CURTIUS and KAUPERT, *Karten von Attika*, text, I, p. 67.

[10] Πρακτικά for 1883, 47.

[11] Πρακτικά for 1883, 48; for 1886, 53.

three of these flights of steps were definitely located. According to Vitruvius,[12] the *cunei* should be seven and the stairways eight in number. But in Greece proper this rule is observed only at Mantineia. At Argos and Thorikos we find only three *cunei*. The number is generally greater than that given by Vitruvius.[13] The eastern *analemma* is immediately adjoined by steps; this must have been the case at the other extremity of the *cavea* also. Such an arrangement is indeed almost universal. The *cavea* was not divided through the middle line by a line of steps, nor is it at Athens and at Sikyon. This division, despite Vitruvius, was, of course, a quite accidental matter, depending upon the number of *cunei*, whether even or odd. The stairway next the *analemma* is 0.72 m. in breadth at the bottom, narrowing with the second step to 0.68 m. Beyond this no exact measurement could be taken on account of the ruinous condition of the remains. The breadth corresponded approximately to that found in the theatres at Athens (0.70 m.), Epidauros (0.74 m.) and Thorikos (0.62 m.). It is considerably exceeded, however, in the steps of the the following flight, which measure 0.94 m., corresponding nearly to the 0.90 m. of the Peiraieus theatre. This increased breadth is natural for the interior, where every stairway gave access to two *cunei* instead of one. The height of the steps varied between 0.145 m. and 0.16 m.; to this must be added a decided upward slope from front to back. So far as could be seen, the level of seats and that of adjoining steps correspond only occasionally, the added height of four steps amounting to that of three rows of seats. This, I think, is quite exceptional. It is an almost invariable rule that every second step reaches the level of the adjoining seat. Only in the theatre at Athens does a single step, inclining upward from front to back, suffice for every row of seats.

The seats themselves vary greatly in dimensions. Those above ground on the upper part of the slope are 0.39 m. in breadth and 0.54 m. in height; those in the lowest row have, as a rule, the same breadth—sometimes 0.05 m. to 0.08 m. greater,—but are only 0.32 m. in height. In profile, there are only slight differences in measurement, not affecting the general pattern. This is a usual one for theatre-seats, and consists of a plane vertical surface reaching 1.05 m. below the upper surface and continued down to the bottom of the seat

[12] V. 6.2.

[13] *Cf.* Athens, Epidauros, Sikyon, Peiraieus.

in a *cyma reversa* curve forming a hollow. The concave surface at its deepest point is distant 0.105 m. from a vertical line let fall from the upper outer edge of the seat. The seats are set level, and have a slightly raised band, 0.09 m. to 0.13 m. wide, running along the outer edge. The small breadth of the seats is, so far as I can find, quite unprecedented. Vitruvius' maximum and minimum are 0.7392 m. and 0.5914 m.,[14] and his maximum is most often exceeded. In the theatre of Thorikos, which is very irregular, the average breadth is 0.60 m.;[15] at Athens, it is 0.782 m., at Epidauros 0.78 m., at Sikyon 0.75 m. to 0.85 m., at Peiraieus 0.91 m. But it is to be noted that in all these theatres, except at Thorikos, only a small part of the breadth served as the actual seat; behind, the stone was hollowed to receive the feet of those on the next step above. The front part or seat proper is 0.332 m. wide at Athens, 0.35 m. at Epidauros, Sikyon and Peiraieus. These latter measurements harmonized better with the seat-breadth in the Eretrian theatre, and appeared to suggest that here the whole surface of the seat was given up to the actual occupant. Such was proved to be the case by further excavation. The seats are not so placed that one rests upon or touches the next, but are distant from one another radially 0.35 m. The intervening space, left for the feet of those who occupied the higher seat, is simply earth. Doubtless its level was below that of the seat in front, just as in theatres where one stone served as both seat and foot-rest. A *cavea* so constructed would be much less secure than if every row were supported immediately by the one below it; so that this detail of construction may account in a measure for the very imperfect preservation of the whole.

As to the difference in height (0.22 m.) of the upper and the lower seats, it may be remarked that, as the former were entirely above ground, a more exact measurement was possible. When the stone was set, some part of this excess of height would disappear, but surely not the whole. In fact, the entire height of one seat in the second row, whose lower edge seemed to have been reached, was only 0.42 m.; this would mean that the stone was sunk to a depth of 0.10 m. below the surface. In comparing the 0.32 m. of the lower rows with the seats of other theatres, we find: at Athens, 0.32 m.; at Epidauros, 0.34 m.; at Sikyon, 0.35 m.; at Peiraieus, 0.32 m.; at Thorikos, 0.35 m. Here, then,

[14] MÜLLER, *Bühnenalterthümer*, 31. [15] *Papers of American School*, IV, 9.

is a comparatively exact correspondence, all the figures being below Vitruvius' minimum of 0.3696 m. Seats so low could hardly have been very comfortable; and, for the theatre at Athens, Dörpfeld assumes that the height was increased by the use of cushions. The same opinion is expressed by Kabbadias in his report of the excavations at Epidauros.[16] But it is interesting to find that at Epidauros the seats above the *diazoma* reach a height of 0.43 m. If at Eretria the upper seats also were set down in the earth to a depth of 0.10 m., the actual height remaining would be 0.44 m., or almost exactly the same as that in the great theatre of Polykleitos. The inference would seem to be that the theatre at Eretria was divided by a *diazoma*, as would be expected *a priori*. The marble slab before referred to, discovered just behind the first row of seats, may have made part of the back revetment of the *diazoma*. It is 1.62 m. long, 0.795 m. wide, and 0.185 m. thick; near one corner on the short side is a hole for the insertion of a clamp that joined it to its neighbor. The *diazoma* was not infrequently revetted at the back with such plates of marble.[17] Only further excavation, however, can make this point certain. Finally, beneath the lowest tier of seats was a single step, 0.77 m. wide, and rising gradually from front to back; immediately adjoining, 0.38 m. lower, is the broad drain skirting the orchestra.

THE ORCHESTRA.

The diameter of the orchestra, measured to the poros curb which skirts it, is 20.28 m.; to the lowest step of the *cavea*, 24.88 m. It is larger than that of the theatres at Peiraieus (16.50 m.), Sikyon (about 20 m.), and Mantineia (21.70 m.); larger even than that of those at Athens (22.50 m.) and Epidauros (24.50 m.),—though in the last two theatres the size of the *cavea* is very much greater than at Eretria. The ratio of orchestra diameter to *cavea* diameter in the Eretrian theatre is an unusually large one. The orchestra was certainly unpaved. As late as 1886, Müller[18] writes of the orchestra surface as *Fast ohne Ausnahme gepflastert*; he cites as exceptions only the odeum at Knidos and the theatre at Epidauros. But in the theatres at Peiraieus, Oropos, Sikyon, Thorikos, Mantineia and Megalopolis, the orchestra surface has been found to consist merely of beaten earth. Kabbadias[19] in his

[16] Πρακτικά for 1881, Παράρτημα, 17.

[17] *Cf.* the theatre at Sikyon, in *Papers of American School*, v, p. 11 (JOURNAL, v, p. 277).

[18] *Bühnenalterthümer*, 37.

[19] Πρακτικά for 1881, Παράρτημα, 19.

report of the work at Epidauros concludes that paving was not in use in the best times. The pavement of the orchestra at Athens, for example, is certainly of Roman date. Perhaps the converse of Kabbadias' proposition will not hold : that the lack of paving implies an early time; but it may at least be regarded as an indication. The orchestra was in part bounded by the line of curb already often referred to. This consists of large blocks of poros, bearing a slight projecting moulding on the outer (next the *cavea*) side. It is 0.42 m. in breadth and rises 0.395 m. from the drain or gutter outside it; thus it is nearly on a level with the lowest step on the other side of the drain. It rises very slightly from the middle toward the extremities, the resulting difference of level amounting to 0.067 m. On the outer side the curve is perfect; inside the blocks are not cut to the curve but are left straight. This makes it certain that the orchestra surface was at least as high as the level of the curb. The upper surface of the stylobate of the proscenium-wall is 0.38 m. above the curb, and it is this stylobate which we might expect to determine approximately the level of the orchestra, which, if just high enough to conceal the lower edge of the stylobate, would be about 0.25 m. above the surrounding curb. The joinings of the curb are everywhere perfect, and the workmanship good. It extends through an arc of 159°, thus falling short of the angular measurement of the *cavea* by 27°. Therefore, for a distance of 5.35 m. at each end, the lowest step of the *cavea* immediately adjoins the earthen surface of the orchestra. At a distance of 1.62 m. from its extremities the curb narrows abruptly (at the jointing of two stones) to a breadth of 0.25 m. The narrowing is all on the inner side ; the moulding and the curve on the outside continue unbroken. Finally, it is joined with the lowest step of the *cavea* by a radial cross-wall of the same pattern, 0.29 m. in width.

The sunken drain or passage left between the curb and the lowest step is 1.88 m. wide at the middle, increasing very gradually to 1.90–1.91 m. at the eastern extremity; it is well paved throughout with poros. That it served as a drain was made sure by the discovery, outside the cross-wall, of a conduit of pottery. This was very small (0.235 m. wide, 0.15 m. deep), and consisted of a flat plate bent to form a rectangular prism ; it was open above and lay somewhat below the level of the *cavea*-drain. A hole was discovered piercing the cross-wall at the bottom, through which water might pass into the outer conduit. This conduit extended toward and under the stage-structure, bending

gradually toward the east. This whole plan and arrangement is closely similar to what was found at Epidauros. At Athens the orchestra is surrounded by a drain, which is, however, much narrower (0.90 m.) and deeper; so that bridges were necessary in the line of every stairway. The same narrow and deep canal with a succession of bridges, is found at Sikyon and at Peiraieus; at Megalopolis its dimensions are about the same, but the bridges, if there ever were any, have disappeared. In every case the drain is carried on in some way under the stage-structure. At Epidauros, the narrow gutter is replaced by a broad and shallow paved passage, very nearly corresponding in its measurements to that at Eretria. A curb with similar moulding bounds it on the inside, and at about the extremities of a diameter parallel to the proscenium are cross-blocks uniting the curb with the lowest step of the *cavea*. These are pierced each by two apertures affording an outlet into a subterranean drain which runs away under the stage-structure. At Epidauros, however, the circle of the curb is made complete instead of being interrupted at the cross-walls. As Kabbadias suggests,[20] Polykleitos' great work might well have served as a model to later designers. The theatre at Aigina, according to Pausanias,[21] resembled it in size and structure.

I have already noted the existence of three ill-made and ruinous cross-walls in this drain. The first lies about 0.50 m. to the east of the middle point of the curb, is 1.60 m. long, 0.37–.40 m. wide, and 0.35 m. high. Space enough is left between each end and the adjoining side-wall of the drain, for water to pass freely. The second, 5 m. further toward the east, is of about the same length and height, but slightly wider. The third, lying 3.65 m. from the second and 3.90 m. from the cross-curb at the end, extends but half-way across the drain, and is very much wider (0.85 m.) than the other two. My first thought was that the cross-walls had served to support bridges corresponding to the stairways. But they lie at such irregular intervals that this could hardly have been the case (the distance between adjacent stairways along the lowest tier of seats is 3.29 m.); and in any event bridges so short would not have needed a continuous support. It seems most reasonable to suppose that the drain was in later times completely covered, and that the cross-walls made the foundation for such covering. They appear to be late, and from their height would be very well suited to

[20] Πρακτικά for 1881, Παράρτημα, 29. [21] II. 29, 11.

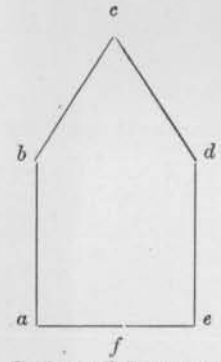
the object suggested. The reason of this covering may have been to obtain space for a row of marble chairs or thrones. If the chairs were not here, they could have had no other place except within the orchestra itself, where they are found at Oropos, just across the Euripos from Eretria, but, I think, nowhere else in Greece. The two theatres might very well have been similar in this respect. The fragments of thrones which were found seem to shed light on the matter. All along the course of the drain were unearthed large and small pieces of marble which certainly belonged to thrones. Finally, at the east end, the back of a throne was found entire, lying on the poros pavement of the drain. It corresponded in style and measurement to the smaller fragments. In addition, we discovered, as already noted, near the centre of the orchestra, at the north end of the subterranean passage, the arm of a marble chair, lying about 1 m. below the ancient level of the orchestra. It differed entirely from all the rest in dimensions and pattern. Mr. Leonardos, the superintending Ephor at Eretria, judged it of earlier and better work than the more numerous fragments. It may have belonged to a period earlier than the construction of the underground passage, and at this earlier time the thrones may have stood within the orchestra, as at Oropos. In the construction of the passage a deep trench must have been sunk and naturally prolonged somewhat beyond its northern extremity; in the hole thus left this fragment of a throne might well have been buried together with other *débris* from the old structure. I should ascribe the later thrones to the period of rebuilding thus indicated; these might then have been placed over the drain which was covered to receive them. But all this is a matter of conjecture from very incomplete data.

The arc of the orchestra, if taken at the poros curb inside the drain, just cuts the line of the later proscenium, but falls short of the heavy front-wall of the older stage-structure. The curve of the lowest step, if prolonged, cuts the earlier wall as well. This latter circle is the basis of Vitruvius' plan; and in this respect the theatre at Eretria, like most others, chances to accord with the Roman architect's theory.

THE UNDERGROUND PASSAGE.

The position and direction of the underground passage have already been described. Its total length is 13.09 m.; breadth at the bottom (*a–e* in section) 0.89 m.; height (*c–f*) exactly 2. m. It is formed of two tiers of very large blocks carefully fitted together, no one of

them varying in length so much as 0.05 m. from 1 m. The stones of the lower course are set vertically and are 1.10 m. high (*a–b*, *e–d*). With the second course (*b–c*, *d–c*), the two side walls come together, making an angle at the top of 60°. There is no cap-stone, and nothing of the arch-construction; the stones rest against each other merely by the contact of their inner uppermost edges, and the outer edges, which might otherwise project above the level of the orchestra, are cut away so as to lie just beneath the old surface. The passage is covered in this way along 11.03 m. of its entire length. At both ends the last stone of the upper course on each side rises vertically, instead of sloping to meet its fellow. These stones vary slightly in dimensions. All are 0.85 m. in height; but, at the north end of the passage, the block on the east side is 1.07 long, its opposite 0.99 m., and at the stage end, the one to the east is 1.03 m., that to the west 1.08 m. long. These differences are scarcely noticeable except on actual measurement. At the north end every stone is 0.15 m. wide at the top; at the stage end the total width is 0.33 m., but on the inside there is a sunken ledge 0.05 m. deep and 0.15 m. wide. This disposition was evidently planned to receive a trap-door which should cover the opening. At the north end there is a suggestion of an intended covering in two small cavities corresponding to each other in the last two stones that are joined to roof the passage; but it is difficult to see just how these cavities could have contributed to the purpose in question.



Section of Subterranean Passage.

Thus was afforded entrance to the passage at the centre of the orchestra and just behind the *proscenium*. It was facilitated by steps constructed in a noteworthy and unusual manner. At either end a huge block of poros was set in, resting on the same level as the side stones of the lower course, and corresponding to them in height. It was so wide that its middle portion could be cut into steps equal in breadth to the passage, while the side portions thus left standing free bounded the continuation of the passage in the line of the regular blocks of the lower course. This block furnished three steps. Upon it and between the vertical side stones of the upper course, which form the opening, was placed another huge block, which was cut out in three more steps in the same way. Thus a stairway was formed

extending from the upper outer corner of the vertical side stones to the bottom of the passage. At the stage end all these six steps are perfectly preserved; at the north end only the lower block, with its three steps, remains. The missing portion, however, may easily be restored. The line of inclination of the lower steps, prolonged by the length of a second block, exactly reaches the corresponding corner of the upper side stones. It is, of course, possible that the missing steps may have been of wood, or for some reason may not have been necessary at all. The steps at the stage end are 0.83 m. long; at the north end 0.87 m.; in both cases 0.12 m. less than the width of the blocks in which they are cut. A ledge 0.06 m. wide is thus left on both sides of the steps. The steps are 0.17 m. wide and 0.27 m. high. The lowest is about 0.50 m. above the original soil which formed the floor of the passage. No trace was discovered of paving. At each entrance the lower exterior edges of the slanting roof-blocks are splayed to afford easier entrance. The passage is now lighted by a vesica-shaped aperture in the roof, 1.24 m. long and 0.35 m. wide, distant from the north end 3.34 m. I do not feel sure that this is not an accidental breaking away; but the roofing seems too firm at every other point to make this probable. No mortar was used in the construction of the passage, and the workmanship throughout is excellent. I owe to Dr. Dörpfeld the judgment that the whole is Greek and belongs to a good period.

What, then, was the purpose of this passage? If it had been a drain, it would surely have extended further, under and beyond the stage-structure; moreover, it is very much larger than a drain need have been. It is thus clear that its object was to make a way by which passage could be had unseen from behind the proscenium to the centre of the orchestra, or *vice versa*. It would thus supply the means for chorus or actors to appear suddenly in view of the audience in the orchestra, or to disappear just as suddenly. The notion that the passage was ever used by the chorus, may be dismissed. One of the most essential purposes of the *parodoi* was to furnish for the chorus an entrance to the orchestra. The effect produced by their appearance one by one from below would have been ridiculous. Extant plays and *scholia* afford abundant evidence to prove the impossibility of such a conception. The purpose of the passage, then, was to allow the actors to pass between the orchestra and their dressing-rooms in the rear of the proscenium. After his appearance, the actor may have kept his place in the orchestra or ascended a raised stage such as Vitruvius describes.

An important fact to be noted is that such a passage could have been employed only in particular cases. An actor who is represented as coming from palace or city or some foreign land could not possibly appear before the audience as if rising suddenly from the depths of the earth. Such an apparition must actually be a being from the lower world, imagined as returning to the light of day. The manner of entrance would be so clearly seen by the audience and would be so notable that it must at once suggest such an apparition. The device can have had no cause for existence, if it was not to contribute to what we call stage-effect, to heighten illusion; but illusion would have been utterly lost if an actor who came to herald the return of a king from Troy had been seen emerging from the earth.

Extant tragedy furnishes examples of such appearances. In the *Persians* of Aischylos, the chorus is urged by Atossa (v. 619, *seq.*) to call up the spirit of Darius. The chorus then accompany her libations with a long hymn of supplication to Darius and to the powers of the lower world (vv. 621–671). In v. 656, the King is implored: *ἱκοῦ τόνδ' ἐπ' ἄκρον κόρυμβον ὄχθου.* Darius appears. He first addresses the chorus, telling them how he has seen Atossa *τάφου πέλας* (v. 675), and has received her libations, and he further bids the chorus: *ὑμεῖς δὲ θρηνεῖτ' ἐγγὺς ἑστῶτες τάφου* (v. 677). They have just called on him to rise above the mound that covers his tomb; now he finds them standing close by the tomb. He must appear therefore in the midst of them, and surely from below. The difficulty of placing the tomb upon the stage and grouping the chorus there instead of in the orchestra has always been evident. Such a passageway as that at Eretria would enable the actor who personated Darius to make his appearance much more naturally, from beneath the actual surface of the earth and in the midst of the chorus.

If we are to believe that actors as well as chorus had their places in the orchestra, the final catastrophe of the *Prometheus Bound* may have represented the disappearance of Prometheus and the Oceanides beneath its surface. They must, from the play, have shared the same fate, and together, whether in orchestra or on a stage. At Eretria the entrance to the passage is so small that its use by so large a group would certainly present great difficulties. It is possible also that in Sophokles' *Philoktetes*, and Euripides' *Kyklops*, the passageway may have served as the cave which made part of the scene. This, however, may well be deemed doubtful, and the best evidence is furnished by

the first two plays cited. The *steps of Charon* mentioned by Pollux (IV. 132) have appeared to us clearly for the first time at Eretria. Pollux's description of this part of the scenic adjuncts runs as follows: *αἱ δὲ χαρώνειοι κλίμακες, κατὰ τὰς ἐκ τῶν ἑδωλίων καθόδους κείμεναι, τὰ εἴδωλα ἀπ' αὐτῶν ἀναπέμπουσιν.* This gives but a confused notion of the position of the steps, and various opinions have been held on this point. But if we are to accept Pollux at all, and his is our only authority on the matter, these steps could surely have had no connection with a stage. The meaning of *κατὰ τὰς ἐκ τῶν ἑδωλίων καθόδους* is obscure, but seems as well suited to the situation of the steps in the Eretrian orchestra as to any other point in the orchestra. It is interesting to find Müller[22] supporting his view, that the steps in question led up to the stage through some sort of trapdoor, with the words: *Man beachte auch, dass die Orchestra im griechischen Theater keine unterirdischen Gewölbe hatte wie sie sich im römischen Amphitheater finden.* Wilamowitz[23] seems almost to anticipate the discovery made at Eretria. Discussing the *Persians*, he writes: *Es ist mitten auf dem Tanzplatz eine Bühne, Estrade ist dem Deutschen wohl deutlicher, deren Stufen zu anfang die Sitze des Rathhauses, weiterhin die Stufen des Grabmonumentes vorstellen: aus ihr kommt Dareios hervor; der Schauspieler der als Bote bis* 514 *sprach, hat also Zeit und Gelegenheit gehabt, sich bis* 687 *umzukleiden und unter die Estrade zu gelangen: wie das geschicht ist nicht überliefert, und der Philologe kann sich das nicht reconstruiren.*

A further question involves the relation between these steps and the *ἀναπιέσματα*. Pollux says of the latter (IV. 132): *τὸ μέν ἐστιν ἐν τῇ σκηνῇ ὡς ποταμὸν ἀνελθεῖν ἢ τοιοῦτόν τι πρόσωπον, τὸ δὲ περὶ τοὺς ἀναβαθμούς ἀφ' ὧν ἀνέβαινον ἐρινύες.* Perhaps the *ἀναβαθμοί* are identical with the *steps of Charon*, and with the steps found at Eretria; the Erinyes, as beings of the lower world, would naturally ascend in such a way. The *ἀναπιέσματα* proper may then have involved only some additional machinery to be used in connection with the steps and passage.

If the underground passage at Eretria did serve the purpose described, it would be most natural to expect something similar in other theatres. Mr. Penrose[24] has suggested that the drain-canal in the theatre in

[22] *Bühnenalterthümer*, 150, n. 4.

[23] *Die Bühne des Aischylos*, *Hermes*, XXI, 608.

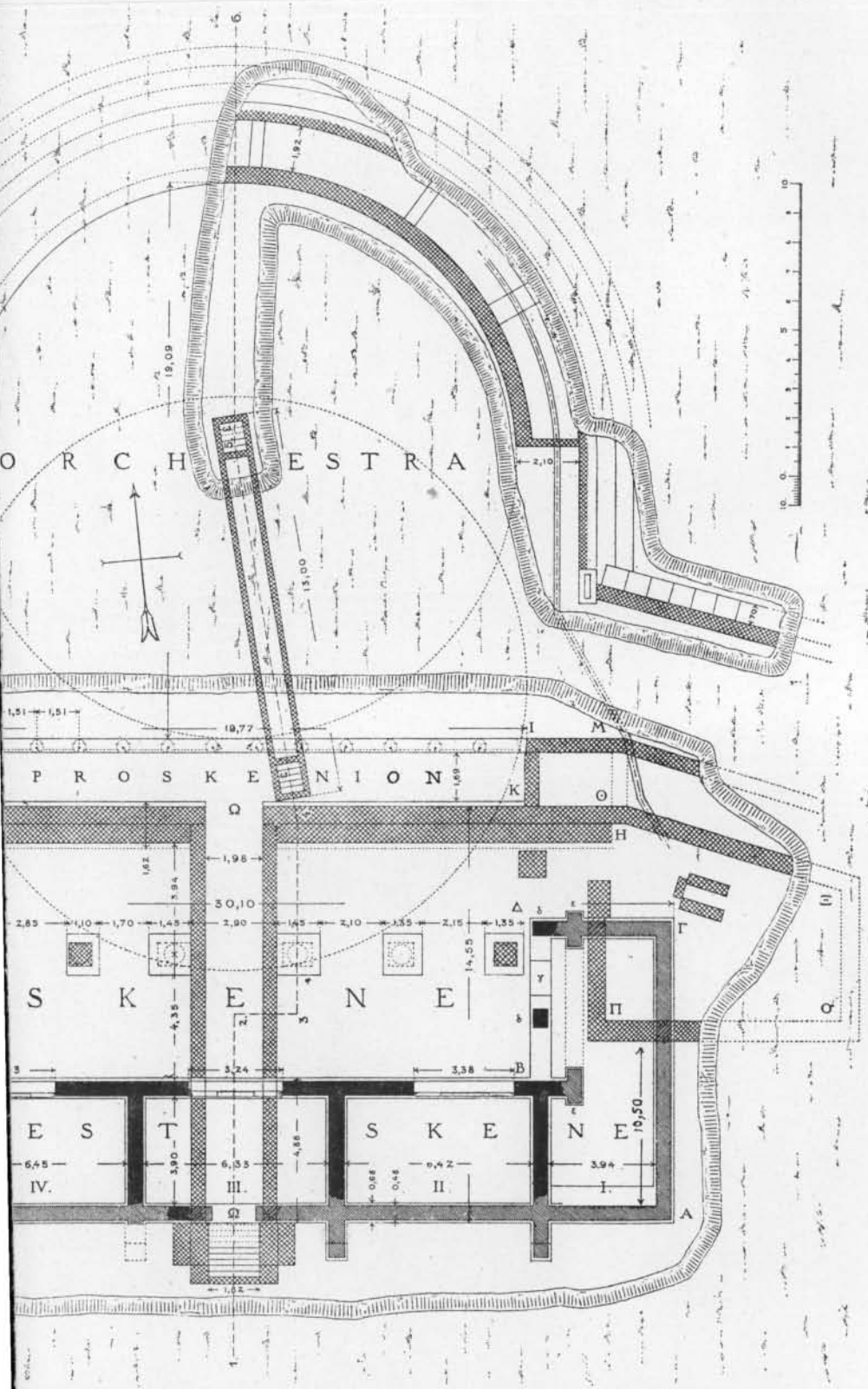
[24] *Journal of Hellenic Studies*, VIII, 272.

Athens may have been used also as a concealed way from one side of the stage to the other; but, even if this were possible, the case would hardly be a parallel one. Clearer evidence however has recently come to light. Shortly after our work at Eretria was finished, news came that the Germans had made a similar discovery at Magnesia. The passage there, Dr. Dörpfeld informs me, has about the same extent and direction as ours, except that at the orchestra end it branches at right angles in both directions, thus taking the form of the letter T. At Magnesia, however, no steps have been discovered, and the opening into the orchestra is barely large enough for a man to pass. At Tralleis, also, there is a less perfect example. But both these passages, Dr. Dörpfeld thinks, are of Roman construction. He tells me, too, that the excavations at present in progress at the theatre of Argos have disclosed what seems to be something of like nature. More important than all these, however, is the evidence afforded by the theatre at Sikyon, where some supplemental excavations have been made during the past summer by Dr. M. L. Earle, a former member of the American School, who superintended the investigations at Sikyon in 1887.[25] Dr. Earle's preliminary report will be found below; but I may touch briefly on the point most interesting in this relation. This is the stairway, in the theatre at Sikyon, which leads down into the subterranean passage just behind the late proscenium. The stairway seems to belong to the same period as the passage, which appears to be of Hellenic work. At the orchestra end there are no steps; but here the passage widens out so as to make a much more spacious entrance than at Eretria. These two facts taken together with the great height of the passage, which would be unnecessary for a mere drain, go to prove that the purpose of the passage was the same as at Eretria. In all probability it served also as a drain; but the two uses are not incompatible. It is certainly noteworthy that such closely similar discoveries have been made in theatres so far apart as the sites in Peloponnesos and in Euboia. With the progress of excavation in all parts of Greece and in Greek lands, further light may be expected with confidence.

CARLETON L. BROWNSON.

American School of Classical Studies,
Athens, October, 1891.

[25] *Papers of American School*, v, p. 20 (JOURNAL, v, p. 267 *seq.*).



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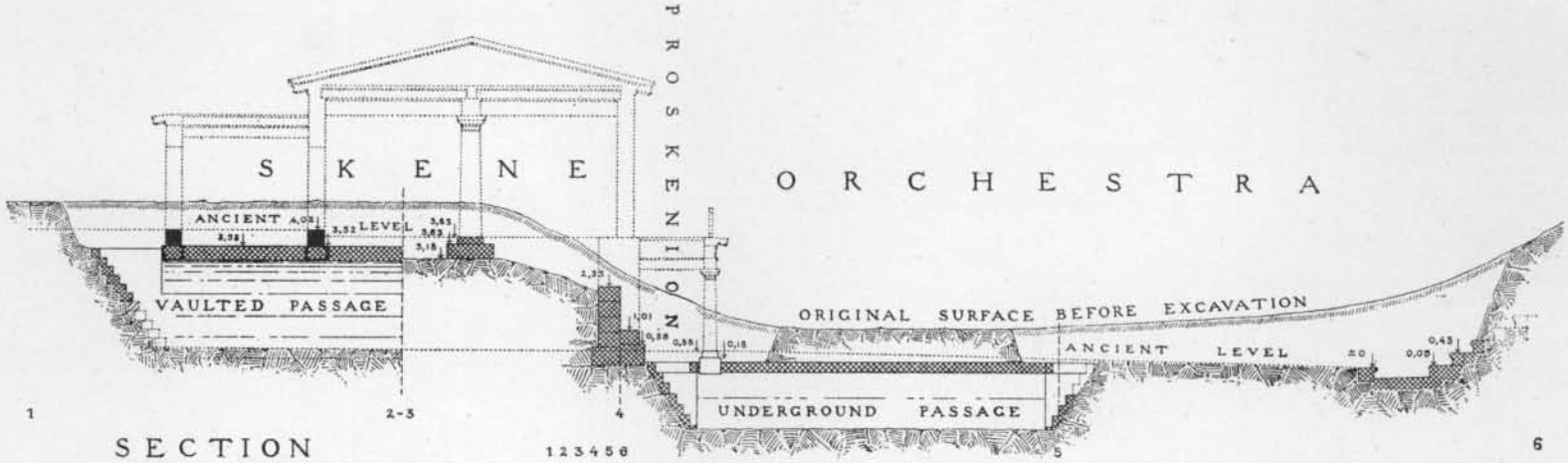

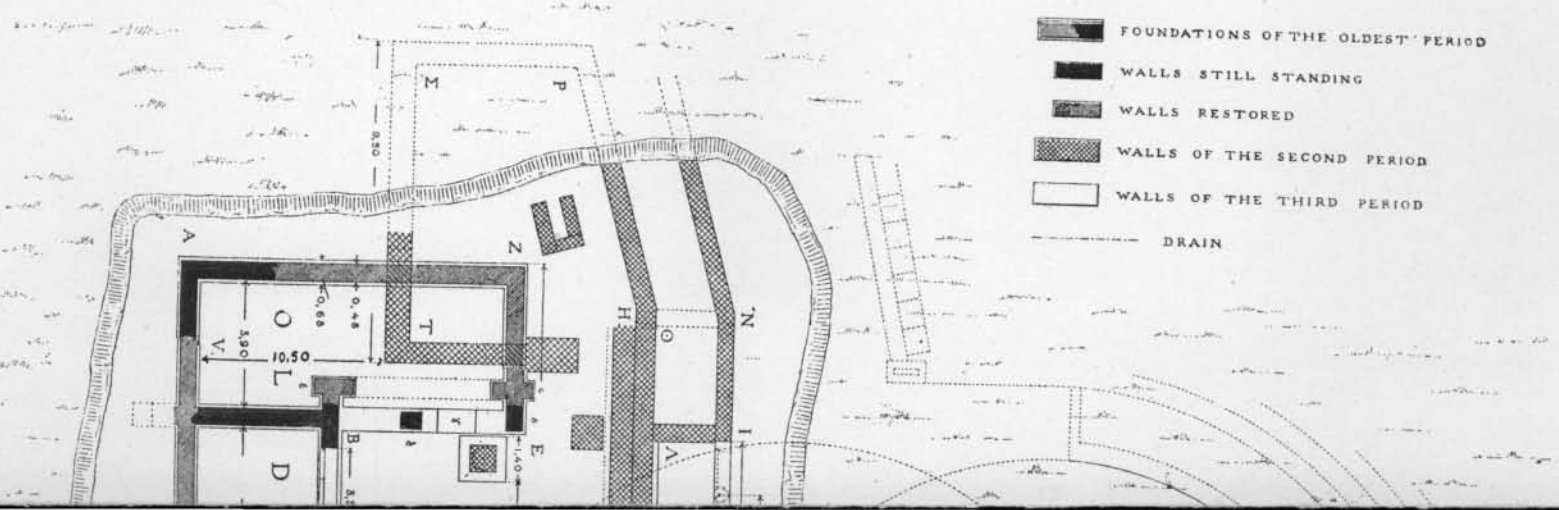

PLAN OF THEATRE AT ERETRIA EXCAV

PAPERS OF THE AMERICAN SCHOOL OF CLASSICAL STUDIES AT ATHENS.
SUPPLEMENTARY EXCAVATIONS AT THE THEATRE OF SIKYON, IN 1891.[1]

The results of the supplementary excavation of the subterranean structure in the theatre of Sikyon, conducted from July 27 to August 14, 1891, may be summarized as follows:[2]

The underground passage, which has been called ὑπόνομος, at present in the form of a trench with vertical sides, begins in the orchestra near the middle of the semicircular conduit below the seats of the *cavea*, and runs to a point about midway between the walls *D* and *E* of the stage-structure (JOURNAL, vol. v, pl. IX). Through most of the orchestra it cuts the native white clay; but from the space marked on the plan as "excavated below the level of orchestra" to the point between *D* and *E*, it is cut through a crust of rock to the clay soil beneath. From just in front of the wall *B* (toward the orchestra), the sides of the ὑπόνομος are sheathed with slabs of stone; this construction is continued through the orchestra to where the ὑπόνομος is met by a gutter cut in a single block of stone, which projects about half a metre into the orchestra from under the lower of the two courses of stone that form the outer boundary of the semicircular conduit. In the stone facing between *A* and *B* is set a flight of five steps of soft native stone, constructed, in part at least, of architrave-blocks. This stairway, which occupies the entire width of the ὑπόνομος and descends in the direction of the orchestra, terminates abruptly about half a metre above the bottom of the ὑπόνομος, thus leaving a free space, evidently intended for the passage of water. Under the stairway the ὑπόνομος is floored with stone slabs. How far forward into the orchestra these run it is impossible to say, owing to incomplete excavation. They certainly appear in the line of the wall *KK*, which has no structural connection with the ὑπόνομος. The depth of the ὑπόνομος varies from about 2.25 m. between *D* and *E* to about 1.85 m. between *A*

[1] *Papers of the American School at Athens*, v, p. 20 (JOURNAL, v, pp. 267–292).

[2] A detailed report, with plans, will be published later.

and *B* and at *KK*. Its width is about 0.56 m. between *D* and *E*, and 0.69 m. between *A* and *B*. At about the centre of the orchestra, the ὑπόνομος widens to about double its average width, and forms a cubical tank, with a clay bottom, 1.30 m. square and deep. Beyond this its breadth decreases gradually from about 0.60 m. to 0.30 m., where it meets the gutter mentioned above. The ὑπόνομος was originally covered, except over the stairway, with slabs of native conglomerate. It is continued beyond the theatre by a tunnel in the rock, about 1 m. high, which apparently meets one of the numerous subterranean waterways of the plateau.

MORTIMER LAMSON EARLE.

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