I.–Excavations At Sparta, 1907§ 4.—The Sanctuary of Artemis Orthia

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LACONIA.

I.—EXCAVATIONS AT SPARTA, 1907.

§ 4.—THE SANCTUARY OF ARTEMIS ORTHIA.

(Plates II.—IV.)

The continuation of the work at the Sanctuary of Artemis Orthia was the main objective of the season's campaign, and on it the greater part of our money and time were expended. Work was carried on continuously from the beginning of the season on March 18th to its close on May 31st, with the exception of the three weeks from April 5th to 25th, when the Director, who was in charge throughout, was absent at Athens. The number of men employed varied from about fifty to as few as twenty-five or thirty at the end of the season, when the work consisted mostly of slow digging with knives, at which it was not possible to employ more than a very limited number.

A comparison of the plans now published on Plates II. and III. with last year's plan in B.S.A. xii. Pl. VIII. will shew the progress made. Work was confined to the temple and the theatre; the important region between the theatre and the new course of the mill-leat has not been touched. The theatre, which in 1906 was excavated only enough to trace the general plan and uncover the outer piers, has now been completely cleared, and the interior of the temple and the arena, which had been explored only by means of the trial-trench A and a pit at the western end of the temple, have now been completely excavated down to virgin soil. A general view of the site after the season's work is given in Fig. 1.
The Roman Theatre.

The theatre was found in 1906 to have rested on a horseshoe-shaped foundation or raft of rubble masonry. On this was a series of radial walls, supporting the seats of the auditorium, and, separated from the ends of the walls by a vaulted corridor, the piers and arches, which formed the outer wall of the building. The extent to which the destruction of this theatre has been carried, since it was seen by the travellers whose accounts have been collected by Professor Bosanquet,¹ can be seen by looking at the views reproduced in Figs. 2 and 3, which shew the building fully cleared. It will be seen that only the outer piers are preserved to any height above the foundations, and these never more than three, or at most four, feet. Often the walls are destroyed right down to the foundation, leaving only

¹ *B.S.A.* xii. p. 305. To the references there cited should be added a Plate of the theatre in *Museum Worsleyanum*, which claims independent origin, but adds nothing material to Le Roy's.
slight traces of their position on its surface, and in one case the destruction of a radial wall (V on the plan on Pl. II.) by the searchers for building material has led to the removal of most of the actual foundation in that region. The plan on Pl. II. distinguishes between what has been left standing and what has been destroyed. Some of the destroyed walls have however left a clear mark of their original position, in the shape of a line of mortar rising up from the foundation along what was the face of the wall. Such walls are drawn on the plan with full lines, to distinguish them from the reconstructed parts, which are put in with dotted lines.

FIG. 2.—THE ROMAN THEATRE WITH THE PIERS AND RADIAL WALLS, AND THE EUROTAS IN THE BACKGROUND.

On this raft or foundation of rubble masonry, some 1'20 m. thick, the whole building rested. It has the shape of an incomplete ring 21'80 m. in inside, and 54'20 m. in outside, diameter. This ring is broken on the west to admit the temple, the gap being 10'10 m. wide. The temple protrudes into the arena, forming a chord to the inner circle of the foundation, the central point of the façade being two metres inside the circumference. The outside circle of the foundation would, if completed, pass through the back of the temple. Round the eastern half of the temple was a row of
stone slabs set on edge, of which fifteen were found *in situ*. They are 0·80 m. from the wall of the temple. One of these is preserved in front of the temple between the step and the slabs of the Roman pavement, with which its top is about flush. It seems likely therefore that they date from this period. They are marked on the plan in Pl. II., and the missing slabs marked in dotted lines.

The outer wall of the theatre rested on a series of arches and piers, of which latter ten are partly preserved. They are distinguished on the Plan on Pl. II. by Roman numerals. They were built of rough masonry, broken at intervals by bands of three or four courses of brickwork, in a way characteristic of late Roman and Byzantine work. Each pier, except VII. and the reconstructed I., XII. and XIII., is 1·20 m. thick and, on the inside, 2·35 m. broad, exclusive of the plinth. These plinths are of irregular dimensions, and no doubt both they and the piers were faced originally with marble slabs, just as the present upper surface of the foundation must have been covered with a finer pavement. A block of marble with mouldings, which was found near by, probably belonged to a
course running all round the outside of the building above the arcade. No other architectural member has been found, to give any clue to the restoration.

Inside the piers is a series of radial walls, marked on the plan by Roman numerals. These rays spring from a ring of masonry rising above the inner part of the circular foundation. This raised ring is about 3.50 m. thick, and begins just behind the podium. It served to support the lower rows of seats. It is broken only at the two points between Rays VIII–IX. and XVI–XVII., where were the two entrances to the podium and the lower seats, whose position is marked on the old French plan in Fig. 4.

One of these entrances, that between Rays VIII–IX., was found last year, and its opening to the podium just traced. This year lumps of fallen masonry were found in this opening, consisting of bricks arranged radially like the voussoirs of an arch and bound together by mortar. It was possible from these data to calculate the width of the arch to which the bricks had belonged, and it worked out to about 1.25 m., the actual width of the opening. It appears therefore that the entrance to the lower seats was through an arched passage, running from the outside of the building to the auditorium.

It is noticeable that the outside piers do not correspond at all regularly to the radial walls, and for this reason Pier VII. had to be made wider than the rest in order to produce the correspondence between the pair of piers, VII. and VIII., and the rays, VIII. and IX., inside them, necessary to make the entrance to the lower seats at this point symmetrical. Piers VIII., IX., etc. are of the normal size, a fact which points to the piers having been originally marked out on the foundation in the direction in which they are numbered on the plan, and it seems that, when the architect reached the entrance, he found his piers lagging behind, and had to make one wider than the others in order to catch up with the radial walls. Then, after he had passed the entrance, he went on again with piers of the normal size. This theory of the direction in which the building proceeded will be seen later on to have some importance. The blocks of the outer threshold of this entrance are preserved between the piers, and their height (1.10–1.15 m.) above the level of the top of the foundation shews that it was originally covered by a pavement, which has now disappeared.

Turning now to the radial walls, it is plain that these supported the
rows of seats immediately above those supported by the solid ring of masonry, from which the radial walls spring. Each of these is about 6'50 m. long.

The seeming irregularities of the plan it is possible to reduce to an almost perfect symmetry, and it is only north of the axial line that this fails. We notice first that the space between the rays at their outer end is, in all but certain cases, 2'30 m. One of these exceptions is the wider interval (2'75 m.) between Rays VIII.-IX., opposite the threshold between Piers VII.-VIII. This is due to the entrance to the lower seats, which runs in here, and it is to fit this also that the two adjacent spaces between Rays VII.-VIII. and IX.-X. are made wider than usual, 2'70 m. and 2'90 m. respectively. The other exceptions are between Piers II.-III., VI.-VII., X.-XI., and XV.-XVI. The size of the intervals cannot be recovered, because in no case are the two inner faces of any one of these pairs of rays preserved, but the sum of the widths of the pairs of rays plus the interval between them comes to 4'70-4'85 m., and, if we allow the rays their usual width, this gives intervals of only 1'50-1'65 m., instead of the standard 2'30 m. Also it appears from the remains of Rays X. and XI. that these intervals did not run in so far as the raised circle of masonry, like those between the other radial walls, but were, for some way at all events, filled up. This proves that these spaces were not mere blind passages roofed with conical vaults like the others. What they were appears plainly from the fact that, between the ends of Rays II.-III. a stone is preserved in situ jutting forward a little from the rays, measuring 1'40 m. long by .40 m. wide, and that between Rays VI.-VII. a similar block has left its traces on the plaster facing of the wall. These stones are in fact the lowest steps of staircases, which ascended between these pairs of rays, and gave access to the upper rows of seats, very probably opening upon a diazoma, as shewn in the reconstructed section on Pl. III.

The west face of Ray XXV. is exactly symmetrical with Ray II. on the other side of the axial line, and by restoring a flight of steps between it and a reconstructed Ray XXIV., and another between the hypothetical Rays XX.-XXI., we get six sets of steps arranged with tolerable symmetry, three on each side of the axial line. This symmetry is broken by the staircase between Rays XV.-XVI., which comes only one ray after the axial line, whilst two (XII. and XIII.) divide this from the steps between Rays X.-XI. This departure from symmetry makes it impossible to reconstruct
the walls between this and the river, where they have been destroyed by
the channel made for the mill-leat. Another irregularity is that, imme-
diately beyond Ray XVI., the raised ring of masonry is interrupted, which
must mean that here was another entrance to the lower seats, corre-
sponding to that between Rays VIII.–IX. This brings the staircases and
entrances into regular order, and gives us, starting from the south side of the
temple, first two staircases, then an entrance, then two staircases, then a
second entrance; and two more staircases bring us round to the north side
of the temple.

The space between Rays XIII.–XIV. requires some notice. It is
symmetrical about the median line of the temple, and is therefore likely
to be of some importance. This space goes deeper into the solid ring of
masonry below the lower seats than do the others, and yet it is not an
entrance into the passage round the arena at the foot of the auditorium,
ike the spaces between Rays VIII.–IX. and XVI.–XVII., as, instead of
running through into this passage, it ends with the remains of steps
marked in the plan. In connexion with this we must notice a mass of
masonry to the north inside Ray XV. which rises well above the probable
level of the seats. On account of its height it was the only thing visible
on the site before the excavations, except of course the broken face of the
foundation that overhung the bank of the river.\(^1\)

Taken in connexion with the steps between Rays XIII.–XIV. and
their medial position, it is likely that here we have the remains of a sort of
elevated tribune or ‘box,’ raised above the other seats, from which persons
of distinction could witness the contests. Its central position, facing the
front of the temple and immediately above the altar, would make this
very suitable, and such tribunes for magistrates in Roman amphitheatres
are well known.

The entrance to this tribunal was also marked by some special treat-
ment of the outside wall. Unfortunately just at this point the destruction

\(^1\) Owing to its height, this piece of masonry was marked on the 1906 Plan (\textit{B.S.A.} xii.
Pl. VIII.) as of a later (Byzantine) period, as was also Ray XVI. on account of its irregularity,
and the end of Ray XV. Complete excavation has shewn that this is impossible. Another piece
of wall shewn on the 1906 Plan as Byzantine is a face of masonry at the outer edge of the founda-
tion, just where this is broken off beyond Pier XII. Its level, entirely below the upper surface of
the foundation, shews that it has no connexion with the system of piers and rays, but that it is a
piece of some substructure that supported the part of the theatre towards the river. The possible
connexion of the city wall with this part of the building is mentioned below.
of the foundation itself begins, but the ingenuity of Mr. George has suggested a possible partial restoration.

Enough of the foundation is left to show that no pier of the usual size follows Pier XI. The block, however, that forms part of the reconstructed Pier XII. was found *in situ*, and is at the normal distance of 2.50 m. from Pier XI., and runs out towards the edge of the foundation as far as the plinths usually do. Some pier was no doubt necessary here, to avoid the large span of 9.70 m. from Pier XI. to the symmetrically restored Pier XIV., and the entrance to the tribunal between Rays XIII.–XIV. can hardly have had a pier in the middle obstructing it. This, taken in connexion with the position *in situ* of the block in Pier XII., leads to the reconstruction of the two small piers XII.–XIII., leaving the entrance to the elevated tribunal open, and beyond them of a Pier XIV. symmetrical with XI. This reconstruction puts the small piers so restored at the regular distance apart, and so gains considerably in probability, and the arches
between them will thus have been of the same span and height as those between the other piers. It is likely that the two small piers were not carried up to the spring of the arches, but served rather to carry columns, so that this chief entrance to the building was distinguished from the others by being not single but triple, and divided by a pair of columns.

Instead of the piers from XV. onward for about a quadrant of the circle, it is possible that there was a solid wall rising up directly from the outer edge of the foundation, and of such a thickness as to make the vaulted passage between it and the ends of the radial walls of the same width as elsewhere. The evidence for this is the plan given by the French expedition, and here reproduced with the addition of the temple from last year's report¹ (Fig. 4). It will be seen that no piers are marked, but that their place is taken in the north-eastern part by a solid wall. The measurements of this wall are exactly such as would bring it into the position mentioned above. Two reasons make it not unlikely that this part of the theatre would have no entrances; first, that it was so near the river, and second, that the wall of the city which passed between the theatre and the river must at this point have been so close to the theatre as hardly to allow of ready access to it on this side. The curved wall in question ends to the north in an outstanding mass of masonry, and this may very well be a piece of the city wall itself, which in this case must have absolutely coalesced with the outer wall of the theatre at this point. Such a coalescence would make it likely that, in the narrow angle formed near the point of contact by the city wall and the curve of the theatre, this latter would have no entrances. The general accuracy, however, of the French plan is not sufficient to make this at all certain.

The back wall of the theatre remains to be considered. It is a chord of the outer circle of the foundation, cutting the side walls of the temple at right angles, rather less than half-way from the front to the back. It is not clear how the straight line of this chord was adjusted to the radial arrangement of the seats with their supporting walls and the range of outside piers. Nor were both sides alike. The eastern faces of Rays I. and XXVI. (i.e. those away from the temple) are exactly symmetrical about the median line of the buildings, but Ray I. is much thicker than XXVI., and west of these two faces all symmetry between the two sides ceases. It is plain that there must have been a back wall along the line of the chord,

¹ B.S.A. xii. p. 309, and Expédition de la Morée, 'Architecture,' ii. Pl. 46.
and a piece of it was in fact found in 1906 immediately north of the temple. A similar wall has been restored on the plan on the southern side. The wall on the north side at right angles to the back wall has no counterpart on the south, where there are some remains that in their turn are not represented on the north. The square cutting into the inner circle of the foundation just south of the end of the front of the temple is also unexplained.

A pier in the position of the restored Pier I., of which, however, no trace could be found, must have existed at the corners, and would connect with the back wall. The square blocks, lying off the foundation close by Pier I., perhaps belong to a gateway.

The section along the line $A—B$ on the plan (Pl. III.) shews an attempt at reconstructing the buildings. The restorations are drawn in light lines, to distinguish them from the lower part of the drawing, which, like the other section along the line $C—D$, shews the buildings in their actual state. Allowing a probable angle of rise for the seats, the height of the theatre works out to 8·50 m., and the outer wall, following the indication given by the fragment of moulded cornice mentioned above, has been drawn with such a cornice above the arches which span the intervals between the piers. Between the piers and the ends of the radial walls an arched passage, with an average width of 2·75 m., goes all round the curve of the building. From this, two passages roofed with barrel vaults passed between Rays VIII.—IX. and XVI.—XVII. respectively, to the passage round the arena below the seats and behind the barrier, whilst exactly opposite the front of the temple another passage led from the main pillared entrance to the elevated tribunal, whence it may be supposed the highest magistrates witnessed the contests. At intervals also along this passage, under arched openings of the same height as the arches between the outer piers, the six staircases gave access to the diazoma and the higher rows of seats. One of these stairs is shewn in dotted lines on the reconstructed section. Such of the openings between the rays as were not used for access to the seats must have been blind passages roofed beyond their arched entrance, either with a conical vault that descended rapidly on a line parallel with the slope of the seats above, or possibly with a series of arches decreasing regularly in height.1 One of these sloping vaults is shewn

1 This latter is the arrangement in the theatre at Bosrâ (Durm, Baukunst der Etrusker und Römer, Fig. 737).
in dotted lines in the section. The lowest six or seven rows of seats rested on the solid ring of masonry, those above them on the radial walls and their vaults, and the topmost rows were supported by the vault of the circular passage which runs round inside the piers. The spring of this vault was probably at the level of the crowns of the arches on either side of the passage, those on the outer side between the piers, and those on the inner side between the radial walls.

The back wall of the theatre has been drawn in the reconstruction as high as the eaves of the temple. This in the drawing seems to dwarf the temple a good deal, but in reality the façade comes so much forward into the arena that this effect would not be produced.

It has already been noted that the construction of the back wall, which terminates the theatre on the west, differs on the two sides, and this raises the question whether the whole building dates from the same period. In discussing the piers we saw reason to believe that their irregularity about the entrance between Piers VII.-VIII., and the greater size of Pier VII., were due to the setting out of the plan of the building on the foundation having begun on the south side of the temple, and worked round towards the east and north. If the building should prove not to be all of the same period, this evidence points to the southern side being the older. Now it is with Ray XV., and its steps, and the entrance beyond them, that the irregularities of the plan begin. There are also serious variations in this region in the diameter of the circle, from which the radial walls spring. If the French plan is to be trusted, it is at this point also that the series of walls and arches gives way to a continuous wall, and as this rose directly up from the edge of the foundation it must have projected at least 75 m. outside the piers, producing the effect, not of a natural continuation, but of a very awkward join. It is thus likely that the theatre was not all built at the same time. There is no structural difficulty in this supposition, and no necessity that all the segments of a building with the entirely radial construction of a theatre should be contemporary. The stability of the successive cunei does not depend on any mutual support.

It is possible that the later part was not the completion of the hitherto unfinished building, but replaced in a less careful style a part that had been destroyed. This, however, hardly seems so likely. The destruction could only have come from the river, and so well-made a building,
especially with the protection of the city wall, would hardly have succumbed so easily.

We propose to remove more of the foundation next season, and it is likely that further evidence for the date in the shape of inscriptions may thus be found.¹

The Temple.

The interior of the temple has now been completely cleared down to virgin soil, and its front wall displayed by the excavation of the arena. This is preserved to a height of 3.49 m. The middle of the back wall and the north-east corner have been a good deal destroyed by the mill-leat, which a reference to the plan published last year will shew passed over these parts.² Except at these points the usual height is about 3.00 m. In no case is the stylobate preserved, and the great height of the foundations is due to their having been sunk down to virgin soil, right through the deposits that accumulated on the site. This year a cross-wall was found two metres from the front wall. This is the foundation of the wall that separated the cella from the porch, and the temple was thus either prostyle or in antis. No remains of its architectural members have been found.

The fact that in the second century the Roman theatre was built round the temple shews that this latter was then standing and in use. Prof. Bosanquet has shewn that the rites of Orthia continued until far into the second half of the fourth century,³ and since no later temple has been found, this was no doubt in use until the very end of paganism. The evidence for the date of its construction must now be given.

In front of the middle of the façade are the remains of a pavement of slabs, three of which were inscribed. This pavement is shewn in Fig. 5. The inscriptions all record the dedication of sickles to Artemis Orthia by victors, and are of the type so frequently found here, either in the ruins of the theatre, or built into its foundation. One (No. 2561) is of the first century B.C., another (No. 2562) possibly of the first century A.D., and the

¹ As to the date of the two parts, at the time of writing (April, 1908) an inscription of the Aurelian period has been found in the masonry of the southern part near the temple. This prevents us from assigning this part of the building to an earlier date than the beginning of the third century, the date given by Professor Bosanquet last year. The chronological diagram in Fig. 9 was drawn up before this inscription was found, and it was then thought likely that this part of the building was as old as the end of the second century.

third (No. 2482) belongs early in the second century A.D.¹ The pavement cannot therefore have been laid down long before the date of the Roman theatre, and its rough construction makes it almost certainly contemporary with, and thus of, the third century A.D. It marks the level of the arena in the Roman period.

In the section and plan given on Pls. II. and III., and in the photograph in Fig. 5, a step is seen between this pavement and the front of the temple, and so close to the latter as to make it certain that the highest blocks preserved in the front wall of the temple must be almost at the level of the stylobate. Their upper surface is rough, but has some worked parts and possibly was covered with a thin slab of marble, which formed part of the pavement of the porch.

Above the level of this pavement a large number of fragments of stamped roof-tiles have been found, and in especial abundance along the front of the temple. They are of three types, but all bear the name of Orthia, and thus were specially made for use at this sanctuary. Two of

¹ No. 2482 published in B.S.A. xii. p. 376. For Nos. 2561, 2 see below, p. 188.
the types ΙΕΠΟΙ ΒΟΡΘΕΙΑΣ and ΒΩΡΘΕΙΑΣ ΙΕΠΟΙ are about equally common, whilst the third ΒΟΡΘΕΙΑΣ ΙΑΠΟΙ is rare, and looks later than the others. It was probably used therefore only for repairs to the roof. The important point is that these tiles belong to the second century before our era, and therefore prove that the temple dates at least from the Hellenistic period. It may be older, but cannot be later. Whilst their presence above the Roman floor is another proof that the temple stood until the latest times, the number that have been found below it supports the epigraphical evidence of their Hellenistic date. These tiles found below are far fewer than those found above the Roman floor-level, and are probably unused or broken pieces left about or thrown aside at the time when the roof was constructed. Those above are naturally more numerous, as they formed part of the roof, and fell into their present position when the temple was destroyed.

An examination of the photographs in Figs. 6 and 7 shews that the remains of the temple are of two different periods. Fig. 6 shews

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1 For facsimiles see Fig. 6 on p. 38 above. They were published without facsimiles in *B.S.A.* xii. p. 348.
the front wall, uncovered right down to its foundation on the virgin soil, as it appears between the corners of the foundation of the Roman theatre, and Fig. 7 gives the inside of the south-west angle. Two styles of masonry can be distinguished: the first and older style consists of roughly-dressed blocks laid in somewhat irregular courses, and the second and later

![Fig. 7.—The inside of the south-west angle of the foundation of the Temple.](image)

style of courses of slab-shaped blocks, often alternating with courses of the same stone as that used in the older parts, but more carefully squared. In the front of the temple (Fig. 6) the later style is seen in the south-east (left-hand) angle and in the upper five courses, and in the view of the
inside of the south-west angle (Fig. 7) the older style is overlaid by six or seven courses of the later. The alternating courses of slabs and blocks are here very marked.

This points to a rebuilding of the temple, which may be attributed to the same date as the stamped tiles. The temple was thus rebuilt on the foundations of an older temple in the Hellenistic age.

Spartan history perhaps enables us to fix this date more closely. Mr. Wace has suggested that no date is so likely as 178 B.C., or shortly after, when the constitution of Lycurgus was restored, and the walls of the city rebuilt. This activity in building might well be extended to so important a temple, and none would be more likely than a temple so closely bound up with the traditions of the Lycurgan discipline and training.

The Roman level is marked not only by the pavement described above, but also by a row of bases, ranged along the northern edge of the arena, at exactly the same level. They appear on the right in Fig. 5. The bases themselves are older than the position in which they were found. The third in order from the temple, for example, consists of two bases superimposed, and the fourth rests on a lower base inverted. The mouldings are earlier than Roman, whilst the diversity and careless arrangement of the bases themselves also point to the re-use of older material at a period of decadence. In order to dig beneath them, they were removed, and set on the edge of the Roman foundation, just behind the positions in which we had found them.

In clearing the arena below this Roman floor-level, we first found 75 m. of earth, and then a deposit of sand and gravel, varying slightly, but generally about 150 m. thick. This sand, which was brought from the river to raise the level of the site, was found, not only over all the arena, but also inside the temple. It contained objects of great importance for the history of the site. First, a number of building-chips, the small fragments of stone struck off when blocks are dressed, were found in it along the front of the temple. This shews that it was put down at a time when building operations were going on at the temple. That this was the building of the original temple, and not the Hellenistic reconstruction, is shewn by several facts: first, none of the Hellenistic tile-stamps were found in the sand; the lowest of these were found in the earth above it. Secondly, the sand did

on the other hand contain several archaic objects; notable amongst these are the six-sided shuttle-shaped die with the retrograde inscription published on p. 116 below, and the relief of the two lions heraldically facing one another shewn in Fig. 8. Only in the sacrificial débris mentioned below on p. 64, which lay immediately above the sand, was any black-figured ware found. The lion-relief resembles the limestone reliefs found in 1906, one of which bears an archaic inscription, which, like the inscribed die, may be put in the sixth century. We may therefore conclude that the sand was laid down in this century, and the temple built at the same time; the dressing of the blocks on the spot produced the building-chips mentioned above. The level therefore marked in the section on Plate III. as having been made at the building of the temple, will date from the sixth century. During the period of perhaps seven hundred years before the construction of the Roman theatre, the level rose the 75 m. between this and the level of the Roman pavement. It is in this three-quarters of a metre that some of the stamped tiles were found; they must have been deposited there in the Hellenistic period, when the temple was rebuilt, and these tiles were used for the roof. The same stratum contained also other notable objects: just by the front of the temple a fragment of a lion's neck and mane in gaily-painted poros stone was found, and with this must be associated a number of pieces of the same material, some worked and some mere chips, which were found below the fourth and

Fig. 8.—Relief of Lions from the Layer of Sand.
fifth bases. These were heaped together some 20 m. below the level of the top of the sand, but themselves lay in earth. The fragment of lion’s mane may be attributed to the sixth century, and is probably part of a group of coloured sculpture, which decorated the temple in its earlier stage, and was thrown down, scattered, and broken at the rebuilding, which, we have seen, took place during the time when this earth was accumulating. It is only thus that we can explain the presence of tiles from the second temple in the same stratum as the débris from the first. The poros fragments found below the bases date, on the other hand, from the time when the sculpture was made, and must have been thrown into a hole in the sand, when the newly-made surface was levelled in front of the new temple. The proximity of the river must always have exposed the sanctuary to floods, and it was this which led the Spartans in the sixth century to raise the level by a metre-and-a-half, and build a new temple. This they adorned with coloured poros sculpture, of which the lion’s mane is, unfortunately, the only fragment yet recovered.

In this layer of earth between the sand and the Roman level is a drain made of terracotta pipes. It is seen in the plan to cross the arena in front
of the temple. The part preserved has a total fall of 40 m. That it is earlier than the theatre is proved by its being cut right off at the north end by the concrete foundation.

The chronology of the first building and later reconstruction of the temple is given in diagrammatic form in Fig. 9.

The Altars.

The analogy presented by the auditorium and the façade of the temple to the cavea and stage-building of a theatre, and the prominence of an altar in the accounts of the contest of endurance, had already suggested that an altar existed in this arena. This has now been verified. Resting on the top of the layer of sand is a structure, which runs roughly north and south across the arena, and has been identified as the remains of an altar, or rather of two superimposed altars. The photograph in Fig. 10 shews it from the south-east. The row of bases appears behind on the right, and the front of the temple on the left. Plan, elevation, and section are given in Fig. 11.
Laconia. Sparta.

Fig. 11. Plan, Elevation, and Section of the Remains of the Roman and Underlying Greek Altars.
Immediately resting on the sand is a row of well-cut blocks of *poros* stone, laid without mortar. Another block, not appearing in the photograph, lies at right angles to these. These blocks support the remains of a later oblong structure, consisting of walls built up of odd slabs pieced together with mortared masonry of small stones. Its width was 2·60 m. The destruction of the northern end makes it impossible to recover its length. It was in any case more than 8·20 m. The structure is nowhere preserved to a greater height than 7·5 m., and its highest point is only some 1·15 m. above the level of the Roman arena. The photograph given in Fig. 10 shews how much its foundation is sunk below the Roman level, which is marked by the row of bases. At the level of the *poros* blocks, the space to the east between this structure and the foundation of the theatre is filled with a deposit of burned matter containing various objects, the *débris* of sacrifices. This space is shaded on the Plan in Pl. II.

In these structures we have the remains of two altars. The *poros* blocks are the lowest course of a Greek altar, and the patchwork building above them represents an altar of the Roman period. The deposit of sacrificial débris only begins along a line 2·60 m. east from the row of *poros* blocks, and thus exactly below the eastern edge of the later altar. This shews that the blocks are from an altar originally 2·60 m. wide, and thus of the same size as the Roman altar above. Among the charred remains in this deposit were a large number of lead figurines, black-glazed sherds, and some black-figured pottery. This lower altar, to which the deposit belongs, is either contemporary with the first building of the temple in the sixth century and the accompanying rise of the level, or at all events not much later.

The careless construction of the Roman remains above the course of *poros* blocks points to their connexion with the latest period of the sanctuary. The pavement in front of the temple, the row of bases, and the masonry of the later part of the theatre are all in the same poor style. As the work in question, however, hardly rises above the level of the Roman pavement, it seems that we have in it not much more than the concealed foundations of the Roman altar, going down to, and resting upon, the remains of the earlier Greek altar. This accounts for the fact that no burned débris was found with it. It is possible that the blocks from the earlier altar were re-used for this later one, the earlier altar being in fact simply raised to a higher level. This would also involve the disappearance
of much of the burned matter from the lower altar, and, modern pillage being out of the question, some such explanation is needed to account for its disappearance. The Roman altar itself, whether made of these blocks or not, has no doubt been removed in recent years, with so much more of the building-material from this site, for the construction of modern Sparta. This accounts for the scattering of any débris of sacrifices that may have accumulated round it.

The greater part of the rise of level between the top of the sand and the Roman pavement may be put down to the period of the rebuilding of the temple, and the Roman level is thus not likely to be much higher than the Hellenistic. The fragment of the painted lion from the earlier temple was found one-third way up it, and so much at least of the rise must belong to the period of the reconstruction. To this time belongs also the drain running in front of the temple. Some broken Greek figurines were found in the same stratum, and, as mentioned above, a certain number of the Hellenistic stamped tiles belonging to the roof of the rebuilt temple. Traces were found at various levels of floors, pointing to a raising of the level, which was, at all events in some measure, gradual.

The next step in the excavation, after clearing the arena down to the level of the lower altar, was to remove the layer of sand both from the arena and the temple, in order to explore the lower strata, which already in 1906 had yielded such a remarkable harvest of objects of the archaic period. If the sand was laid down and the temple first built in the sixth century, it follows that this gives a terminal date for these strata below. It was necessary at this point to remove the remains of the two altars described above. A number of photographs and the set of drawings reproduced in Fig. 11 were made, to serve as a detailed record.

In the account given last year of the archaic objects found below the Roman foundations, the deposit was said to consist of two parts, the lower, a layer marked by Geometric pottery, and above this another containing pottery of the Corinthian period. This observation was made from the results of a trial-trench, cut right across the arena (marked 'Trench A' on the plan), and has on the whole been confirmed by the full excavation of these strata in the temple and arena, though the case is not quite so simple as it then appeared. The two sections given on

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1 B.S.A. xii. pp. 318 sqq.
Pl. III., one taken along the axial line of the temple, and the other at right angles to this through the centre of the arena, shew the conditions as ascertained by this year's work. The ware in the upper stratum has proved not to be Corinthian but mainly of local fabric, and the more general term Orientalising must now be used. As was seen last year, the lowest stratum is marked by Geometric pottery. The new fact that the excavation
of a wider area has brought out clearly, is that there is no sharp dividing line between the two, but rather an intermediate stratum, in which both fabrics are found, and mixed with them a certain amount of Proto-Corinthian ware. A more detailed account of these strata follows the description of the excavation of the region.

The structural remains found at this level consist of a large altar (Fig. 13), surrounded by the remains of a rough pavement of cobblestones. The earth all round the altar and beneath it, as far down as the virgin soil, is full of the charred débris of sacrifices. The position of this

![Fig. 13.—The Archaic Altar from the South-West.](image)

is marked by shading on the plan and section given in Fig. 12 and Pl. III. Besides the objects found in the rest of the deposit, it was full of small fragments of burned bones.

The altar is 1'00 m. or, with a coping, preserved at the north end only, 1'20 m. high, 9'00 m. long, and 1'50 m. wide. It is constructed of rudely-dressed stones laid in irregular courses; the lower courses are of flat stones. Then follows a fairly regular course of large squarish blocks, and above
this the flat stones are used again, and form at the better preserved north end the projecting coping just mentioned.\(^1\)

The section on the axial line \(A-B\), on Pl. III., shews that the cobble pavement is not quite at the lowest level, but that, like the altar itself, it rests on some \(0.30\) m. of Geometric deposit. Whatever therefore the date of the altar may be, there were sacrifices at this spot even before it was built, and the contemporary pavement round it laid down. To this earlier period belongs the layer of small rough stones, seen in Fig. 13 and on the plan of the arena (Fig. 12) projecting from under the west side of the altar, \(1.50\) m. from its north end. The straight line, with which this layer terminates to the north and west, and the fact that it does not, like the pavement to the east, abut against the altar, but rather definitely passes underneath it, point to its being the lowest course of some still earlier structure and, in all probability, itself also an altar. As far as search has yet been made, no burned matter has been found below these stones, and we may therefore take this construction as the earliest yet found on the site.

The section through the axial line of the temple (Pl. III.) brings an interesting fact into prominence: all the three altars, the archaic, the Greek, and the Roman, occupy almost exactly the same position. The layer of stones, described above as being possibly the remains of a yet earlier altar, does not appear on the section, but its position under the other three can be seen in the plan in Pl. II., where it is marked in dotted lines; above it, though somewhat to the east, is the great archaic altar. Separated from this by the layer of sand put down to raise the level in the sixth century, but still in the same position, and with the same orientation, are the \textit{poros} blocks, which are the sole remains of the altar used with the old temple then built. Based on these again are the remains of the Roman altar, used during the last years of the Hellenistic reconstruction of the temple. The sacred character of an altar, and its natural permanence, make it unlikely that there was any intermediate altar between these two, of which no trace has survived. The chronological diagram given in Fig. 9 (p. 61 above) presents this succession in graphic form.

\(^1\) The southern end of this altar was found in 1906, in cutting the trial trench A. The contrast between the lower courses of flat stones and the bigger stones above gave the idea that the former were a foundation, and that the structure dated from the period of the Orientalising deposit. This is now seen to be wrong. The connexion with the pavement, and all the circumstances brought out by the complete excavation, make it clear that the altar was built in the Geometric period.
The sacrificial débris mentioned above as having been found below and on all sides of the altar contains the same objects as are found in the rest of the archaic deposit. It is noticeable that all the strata are much thicker, that is, rise to a much greater height, on the east than on the west side of the altar, where they are no thicker than in the rest of the arena. It was therefore the west side that was kept clear for the purposes of the cult, whilst on the other side refuse was allowed to accumulate.

The digging of this deposit brought out two further points, proving that the altar is contemporary with it, and the earliest walls of the temple, later: one is this unevenness of the strata on the two sides of the altar, higher on one side than on the other, contrasted with the way in which their levels are unaffected where they are met by the walls of the temple. The walls, being of a later date than the deposit, cut right through all the strata, whilst the altar, having been in existence whilst the deposit was accumulating, has made the strata drift up higher on one side than on the other. The other piece of evidence is, that the only place where there was any exception to the rule that the topmost stratum contained no pottery but Orientalising, and that to find Geometric a lower level must be reached, was in the immediate neighbourhood of the temple walls. Here a few Geometric sherds were found above the Orientalising; below these latter was the usual thick Geometric stratum. The explanation of the earlier Geometric sherds being found here above the later Orientalising, is that they were thrown up from below into the position in which they were found, when the trenches were dug for the foundations of the walls. The later date of the temple thus admits of no doubt.

The date to be assigned to the great altar can only be discussed after the description of the finds in the archaic deposit. Meanwhile it may be noted that, whilst for the period after the putting down of the sand (that is, for the latter half of the sixth century and onward) we have the remains of both temple and altar until the end of paganism, for the earlier period of the great archaic altar we have as yet no remains of a temple. The search for this earlier temple will be the main objective of next year's campaign, and there is some evidence for supposing that its remains are to be sought for underneath the Roman foundations to the east of the altars. In 1906 a hole was cut through this between Rays XI.—XII., as a part of the trial trench B, and a piece of wall, some archaic roof tiles, and a fragment of painted terracotta architectural ornament were found; this year more
such pieces of tiles were found between the altar and the edge of the Roman foundation. These tiles suggest a building contemporary with the archaic altar, and this is likely to be the temple. The reason for changing its position and rebuilding it a little further from the river was probably the same as that for raising the level of the sanctuary,—to avoid the danger of floods. Although the temple changed its position, the altar, the real centre of the cult, retained its old traditional place, hallowed by the sacred associations of many years.

_The Archaic Deposit._

(Plate IV.)

The whole thickness of the archaic deposit varies from about half a metre in the middle of the arena to rather more than a metre inside the temple and to the east of the altar. The sectional drawings on Pl. III. shew that the lower part, marked by Geometric pottery, is from one-half to two-thirds of the whole underlying the stratum of Orientalising ware. The intermediate stratum mentioned above, in which both are found mixed with sherds of Proto-Corinthian, is marked on these sections as being along the line between the two. Its thickness and definition were not sufficient for it to be more closely indicated. The presence of this intermediate stratum speaks for the continuity of the whole deposit, which is clearly brought out by Mr. Droop's study of the pottery in the following section; it also appears from the diagram in Fig. 9, which presents side by side the levels at which different classes of objects are found, and shews how the whole deposit is bound together into one continuous series.

The local distribution of the finds was very variable. In some places the deposit was very rich, in others the earth, especially in the upper layers, contained very few objects. Everywhere the intermediate stratum was the richest.

Before the rest of the deposit, now covered by the Roman foundation, has been explored, the meaning of this irregular distribution cannot be understood. For the present it must be enough to say that the richest areas were the space inside the temple, all the region outside its south-east corner, and the part to the east of the altar. The hole cut last year between Rays XI.—XII., in which the roof-tiles were found, was very
productive, as was also the strip along the bank of the river. The comparatively unbroken condition of the objects here not only gives good hope for the future, but also suggests that these finds come from some building in which they were stored, and not like the rest, from an accumulation of rubbish. It has already been suggested that this building may be the most ancient temple.

In digging this deposit, the whole area was divided into forty plots, six for the temple, and thirty-four for the arena. Each of these plots was further dug in three to six different layers, and the objects found in each layer of each section kept apart in a long series of wooden trays. Everything as it came out of the earth was put into the trays, and put back again into them after the preliminary washing. The pick was hardly ever used, all the earth being removed with knives. This method of digging is shewn in front of the temple in Fig. 6, and by the altar in Fig. 13. When the finds proved especially frequent, it was not considered enough to go over the earth thus with the knife, but it was afterwards taken down to the bed of the Eurotas and washed in sieves. In this way a number of fragments, especially of ivory objects, were recovered. A system by which the heaps of earth, sections of the deposit, and trays all had corresponding labels, enabled us to put the objects thus found into the proper trays. It was not until everything had been thus collected together into the trays, and full notes taken, that anything was thrown away. The sectional drawings on Pl. III., shewing the levels of the strata in this deposit, were constructed from these notes. All through the work a levelling instrument was constantly in use, for measuring the levels of the strata.

In these sectional drawings it was only possible to shew in a general way the composition of the deposit. A fuller picture is given by the upper part of the diagram in Fig. 9. The thick horizontal lines represent the proportion of the whole thickness of the deposit in which each class of object occurs. These ranges have been calculated from each of the sections into which the whole area was divided, and therefore rest on a large number of observations. The greater proportional thickness of the stratum of Orientalising ware inside the temple shews that here the deposit was laid down more rapidly in the later period than elsewhere, and in constructing the diagram, I have, therefore, taken an average between this and the arena. With the not unreasonable assumption that the rate of
deposit was fairly even, the lines in the diagram may be taken as giving some measure of the chronological relations of the different classes of objects, and as being proportional to the length of the period covered by each. Given, in fact, the two terminal dates of the deposit, these periods can be brought into the general chronology of the sanctuary.

The earlier date is difficult to fix, but we are not without some guide: fibulae of the kind shown in Fig. 20c, made of a plate of bone or ivory, in imitation of the form of the 'spectacle' fibulae made of two coils of wire, have been found by Mr. Hogarth in the British Museum excavation at Ephesus. He has kindly told me that he dates these Ephesus finds to 700 B.C. The Spartan examples occurred about half-way down the deposit. The later date we have put to the middle of the sixth century, relying on such evidence as the inscribed die found in the layer of sand, and the fragment of coloured poros sculpture from the temple. This also agrees with the usual dating of Orientalising pottery, as it assigns the upper part of the deposit, in which this occurs, to the seventh and early sixth century. If we allow a like period of 150 years for the earlier half of the deposit, we arrive at the middle of the ninth century for the earliest date. Other Spartan sanctuaries go back earlier than this, for Mr. Droop's study of the pottery shews that the Geometric deposit at the Chalkioikos is, on the whole, earlier than this, and the sherds from the Amyclaion earlier still.

To this earliest date, the middle of the ninth century B.C., belong the remains which it is suggested above are those of the most ancient altar. The date when this gave way to the great archaic altar must be in the Geometric period, because the stratum containing this pottery is divided by the cobble pavement contemporary with the great altar. In the diagram in Fig. 9 this date is taken as about 800 B.C.

The number of objects from this deposit has been very greatly increased by this year's campaign. In the summary account given in last year's report, the more important were ranged under the heads of pottery, bronzes, lead figurines, terracotta figures and masks, and objects in ivory and bone. This year large additions have been made to all these classes, except the terracotta masks, of which hardly more than fragments were found. A fuller study of these is, therefore, deferred until the material is more complete. Of pottery and bronze, on the other hand, so much has now been found, that their characteristics plainly emerge, and it has been
possible for Mr. Droop to draw up the detailed account that follows below. Considerations of space make it necessary to defer a similar treatment of the lead figurines. The yield of these this year, though large, was not so enormous as in 1906, but a study of them in relation to their position in the stratification has enabled Mr. Wace to arrive at some important conclusions. As the diagram in Fig. 9 shews, the figurines begin at about the same level as the Orientalising pottery, and continue to the end of the deposit. They fall into two main classes, those well and solidly made and those of more flimsy make. These latter are found all through, whilst the better class are not found at the higher levels. This development is continued in the figurines found in the burnt deposit connected with the Greek altar above the sand. These differ somewhat from even the highest found below the sand, but some common types mark the continuity. It is noticeable that it is only in this deposit above the sand that figures of deer are common.

A large number of miscellaneous objects must wait for publication until the close of the excavation. This year it is only possible to publish the pottery, the bronzes, and some of the carved ivories. The number of these latter has now been greatly increased. The account that follows deals only with the more striking. There remain a large number of classes of frequently recurring objects, the publication of which must be deferred.

Something must be said of the external relations of Sparta in the light of these finds. The earliest of these indications is given by the presence of amber. This occurs in the lower levels of the deposit, almost ceasing soon after the first appearance of the Orientalising pottery. If we date it on the same system as the other objects, it falls into the latter half of the ninth century and disappears before the end of the eighth. It is found sparingly only, and either in the form of small, generally disc-shaped beads, pierced along a diameter, or used to decorate objects of bone, or ivory. It then appears either as inlaid discs, or on the bows of *fibulae*.

Its presence is important, in view of the rarity of amber on classical sites. It points to a trade connexion with the north, and that at an earlier period than the opening up of Greece to commerce with the East, and the beginning of Orientalising influence. Some such relation is recorded in the story of Herodotus, that traders came to Greece from the Adriatic.¹ It

¹ Herodotus, iv. 33.
also seems to point towards the northern origin of the Dorians. If these were, as Professor Ridgeway has shewn reason to believe, an Illyrian tribe, the quantity of amber found in Illyria is a point of importance.¹ The diagram in Fig. 9 shews how the amber falls off shortly after the beginning of the period in which the Orientalising pottery points to trade with the East. Henceforth the foreign connexions of Sparta face the more

¹ Ridgeway, 'Who were the Dorians?' in *Anthrop. Essays Presented to E. B. Tylor*, pp. 295 ff.
advanced civilisations of the Orient. The northern tribe has taken up its full position in the Hellenic world.

From Egypt we have a great number of paste scarabs. These were originally covered with a blue glaze, but almost all traces of this have generally disappeared, leaving only the very friable body. Their range is rather earlier than that of the mass of the ivories, roughly the eighth century, although it must be remembered that such objects are often considerably older than the deposit in which they are found. Two examples are shewn in Fig. 14 and another in Fig. 16 \(d\). The figure of a woman in Fig. 15 is made of the same paste, and must also be regarded as an Egyptian import. Imitated also from an Egyptian model are the horizontally outstretched wings of the bird on the scarabaeoid gem shewn in Fig. 16 \(b\). Two more of these scarabaeoids were found (Fig. 16 \(a\), \(c\)) in the arena. All three were well down in the lowest stratum containing only Geometric pottery. The stone is soft, \(a\) being dark red, and \(c\) green. The
cutting is peculiar, consisting entirely of lines incised by hand, and resulting in what is simply a line drawing on the stone. The Mycenaean gem

**FIG. 16.—ENGRAVED STONES FROM THE SANCTUARY OF ORTHIA. (SCALE 2 : 1.)**
shewn in Fig. 16/ was found inside the temple, and is the only prehistoric object yet found. It has, it is needless to say, no chronological value: such objects would be preserved as ornaments long after they had ceased to be made, just as peasants at the present day keep and value such gems.

The carved ivories also point to foreign influence, but, except in the case of the figures of couchant animals, this seems to have come from Ionia, and not from Egypt. The chronological diagram in Fig. 9 shews that they begin to occur already in the stratum of the Geometric pottery, but hardly come down so late as the period in which nothing but Orientalising pottery is found. The bulk of them belong to the intermediate period, when both occur together mixed with Proto-Corinthian. This should be assigned to the hundred years from about 750–650 B.C. Below this not much bone or ivory is found. Above it there were a very few fine ivories, but in general only certain classes of undecorated objects. This intermediate period is the richest in every way. The number of scarabs, and the presence of Proto-Corinthian, the earliest of the Orientalising fabrics, shew that it was a time when Sparta was becoming opened up to foreign trade with the East. The presence of ivory, though we shall see reason to believe that it was worked locally, points to the same conditions.

The Carved Ivories.

Fibula-Plaques (Figs. 17–19).

A number of rectangular ivory plaques have been found, carved with figure-subjects in relief, like the one published in B.S.A. xii. p. 328, Fig. 5 c. Fragments of several more have been found, but all the best examples have been drawn and are given here. They were mostly found in the very rich part of the deposit in front of, and at the south-east corner of the temple. They vary in size from the large plaque with the slaying of the Gorgon (Fig. 19), which is '11 m. x '0825 m., to the example in Fig. 17 c, which is only '035 m. x '0275 m. Their use is plain: they were fastened to the front of bronze fibulae of the safety-pin type, with a flattened bow. Fig. 17 d shews such a fibula with a bronze instead of an ivory plate, and below an example which has lost the ivory plate; the rivets on the bow fastened this in place. Before any complete example had been found, it was noticed that the plaques had two bronze rivets on the median line, and
sometimes a strip of bronze fastened behind; the presence of these may be taken as proof that such plaques were originally attached to *fibulae*.

**Fig. 17.—Plaque-Fibulae from the Sanctuary of Orthia.**
(Scale $\frac{1}{2} : 1$, and $d$, $\frac{1}{8} : 1$.)
The reliefs are neatly and finely worked, but show very little modelling. They are in fact little more than drawings with the background sunk. As in a drawing, objects are freely shown one in front of another, but objects so superimposed are all in the same plane, and their position in front, or behind, is only marked by sinking the further plane, just where it passes behind the object in front. Nor does the shallowness of the relief, hardly more than two millimetres, allow of much modelling. Surface details are rendered by incised lines. These are largely used for patterns on drapery, and such details of texture as feathers. No traces of colour are left, except on the figure in Fig. 18b, which has traces of a dark pigment, especially on the wings.

Although the ivory was of course imported, the fragment shown in Fig. 28a is evidence that the carving was done at Sparta. It can be recognised as a piece of an unfinished plaque, probably intended for a *fibula*, in spite of its size. The subject has only been drawn with bold incised lines, and the relief-cutting not yet begun. Like the finished examples, it was to have had a raised border, the lines for which had been marked out. It is interesting, both as a proof of the purpose of these lines, and as a point in technique, that the line running up the side and with the grain of ivory is drawn close to the edge, whilst the lines against the grain at the top and bottom are drawn some way back. The ivory would only be cut back to them, after the ground had been sunk, and there was no more danger of breaking the raised border by cutting against it, where it was not strengthened by running with the grain. This border and the way in which it is prepared for cutting make it certain that this plaque is not a drawing, but an unfinished relief.

A development can be traced in these plaques: as they get later, they become larger, and the convention that the design shall touch the border at as many points as possible is less regarded. Of those published here, Fig. 17a and b are the earliest. Both come from the Geometric stratum, and may be put early in the eighth century. Next come Fig. 17c and Fig. 18a and b from the intermediate stratum, which yielded the greatest number of ivories. The unfinished fragment in Fig. 28a is from the same stratum, the increased life and freedom in the design is very marked. Lastly the large plaque of the slaying of the Gorgon (Fig. 19) is one of the few ivories from the Orientalising stratum, and is one of the latest found. It can be attributed to the first half of the sixth century.
The following is a description of the plaques figured:

Fig. 17 a. Plaque, 0.04 m. square. A man on horseback, facing left and carrying a lance and round shield decorated with an incised pattern of rays and circles. In order to make the design touch the frame at as many points as possible, and thus fill the field well, the horseman's body is so much shortened as to bring the head on a level with that of the horse. The impossibility of the position is concealed by the large round shield. The horse is clumsily built, and has a thick forelock and long mane. The rivets to fasten the plaque to the fibula are preserved; one pierces through the upper part of the shield, and the other appears below the horse's body.

Fig. 17 b. Plaque, 0.04 m. wide x 0.05 m. high. This is the only example yet found with the fibula itself preserved. The drawing shews the bend of the bow below and the catch above, appearing from behind the plaque. The raised border is wider than usual, and decorated with incised circles. The design is a winged female figure, which may be interpreted as the winged Artemis, with the body seen from the front and the face turned in profile to the right. The hair of the goddess falls straight over her shoulders from under the high head-dress, and in each hand she grasps the neck of a bird.

The archaic style of these two plaques (a and b) corresponds with their earlier date. The contrast in this respect between their stiff appearance and the free drawing of the unfinished fragment in Fig 28 a and the Gorgon plaque (Fig: 19) is very obvious.

Fig. 17 c. Plaque, 0.0275 m. wide x 0.035 m. high. A couchant lion, with one paw resting on some unknown object. Although later than the two previous examples, and less stiff in design, it resembles them in the way in which the design touches the frame everywhere. The rivets have entirely disappeared, and the holes, enlarged in front to give a good hold, are in this example by exception not placed on the median line.

Fig. 18 a. Plaque, 0.06 m. wide x 0.08 m. high. A woman full-face, holding two birds by the neck, whilst two more appear above them. The fold of the girded chiton is made to resemble a cape. The figure is probably intended for Artemis; the thick lips are noticeable. No trace of rivets appears, and it is likely that this does not belong to a fibula.

Fig. 18 b. Plaque, 0.0525 m. wide x 0.0825 m. high. A winged, bearded man holding a pair of birds by the legs. Slight traces of a dark colour are

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Fig. 19.—Ivory Fibula-Plaque from the Sanctuary of Orthia. (Scale 1½ : 1.)
preserved on the wings, hair, and border. The position in which this and the preceding plaque were found proves them to be later than the first two, and this lateness shews itself in their greater size, and in the fact that it is no longer felt necessary that the design shall touch the frame at every prominent point.

Fig. 19. Plaque, \(11\) m. wide \(\times\) \(0.825\) m. high. This is no doubt the latest of the plaques yet found, and, with the exception of the unfinished fragment shewn in Fig. 28a, also the largest. It was found higher than the mass of the ivories, and well up in the Orientalising stratum, in the rich deposit in front of the temple. It is much broken, but enough is left for a reconstruction. The subject is a man killing a Gorgon, and the free space of ground left above the heads again shews that the convention of covering the full extent of the field with the design was no longer observed. The two rivets appear, one behind the man’s ankle and the other beneath his left arm. The knowledge that they would occupy the central line of the plaque was a guide for the reconstruction of the design. A good deal is uncertain, especially the left side of the Gorgon’s body, and it is quite likely that she had two wings. In elaboration this plaque is a great advance on the others, and the tendency to simplify the drawing by spreading the design out flat, and not to shew one object in front of another is quite a thing of the past. In the middle of the plaque the man’s arm is in front of the Gorgon’s wing, and the wing of the man’s leg. There is also rather more modelling, especially on the Gorgon’s head. The armour and drapery are indicated by a free use of incised lines.

_Ivory Derivatives of ‘Spectacle’ Fibulae_ (Fig. 20).

The bronze ‘spectacle’ _fibula_ is the prototype of a series of bone or ivory _fibulae_, in which a plate of bone, shaped like the bronze model, is riveted to the front of a bronze safety-pin. An example is shewn in Fig. 20b, in which the plate is bronze, decorated with four knobs at the points corresponding to the centres of the coils in the wire prototype of which a is a specimen. A bone example was found with four small bone bosses still in position. The largest that has yet been found is shewn in Fig. 20c. It is \(12\) m. long. The place of the four bosses is taken by inlaid discs of amber, of which two are still in place. Fig. 20d, which has a bone plate fastened with bronze rivets to an iron pin, is a further derivative from the type. For the two smaller discs, replacing the single turns of wire
between the large helices, it substitutes a straight bar. Bone or ivory fibulae of this type have been found at the Argive Heraeum,¹ and more recently specimens; exactly like the Spartan examples, have been yielded by the British Museum excavations at the Artemis temple at

Ephesus. Here Mr. Hogarth kindly informs me that he dates them to 700 B.C. The twisted rope pattern on the big example from Sparta (Fig. 20c) and the ray pattern on b both reappear at Ephesus. As the

1 They are shewn on Pl. 32 of the Ephesus publication.
bronze-coil prototype is Greek and European, it is probable that these Ephesian fibulae derive from the Greek mainland.

Bird-Fibulae (Fig. 21).

These two fibulae were both found in the stratum marked by only Geometric pottery, and must be put about 800 B.C. The fibula itself is of the safety-pin type, like those above with the ivory plaques, but here the place of the square plaque is taken by a slightly convex plate carved to represent a bird, possibly an eagle. The surface is quite without modelling, the feathers being shewn by incised lines, the long feathers by parallel lines, and the short feathers on the body and upper part of the wings by circles (on c), or by a scale-pattern (on a). The bird in a is remarkable in having two heads, and its eyes formed by discs of amber inlaid. The two rivets fastening the pin appear plainly. Its back view is given in b. Total length 0.063 m.

Couchant Animals (Figs. 22, 23).

Of the ivory figures of animals lying down on small oblong bases, of which a number were found in 1906, many more have now been recovered. A few were published last year as coming from the Geometric stratum.1 The fuller study of the stratification now shews that, whilst they go down into the stratum of the Geometric pottery, and are rare among the Orientalising pottery, yet like the other ivories they are most common in the intermediate stratum, where the two fabrics are found together. This year more than forty have been found, and they are thus quite the commonest kind of carved ivory. As before, sheep and rams are most frequent, but now, to the other animals we must add the bear and the lioness. As in 1906, many examples have designs on the lower surface of the base, either a pattern of zigzag lines, or a figure of a man or a bird in shallow intaglio. Fig. 22 b has a sphinx in relief, but this is rare and may be set aside in discussing the purpose of the class.

Exactly similar objects have been found at the Argive Heraeum2 and at the temple of Artemis at Ephesus.3 In all cases they are pierced horizontally from back to front, through the lower part of the body just above the base, and were probably worn as pendants. But this use does

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1 B.S.A. xii. p. 320, Fig. 2.
3 Ephesus, Pl. 26, 1a, b.
FIG. 22.—IVORY FIGURES OF ANIMALS FROM THE SANCTUARY OF ORTHIA. (SCALE 1 : 1.)
not explain the decoration which so many examples have on the lower, and therefore concealed, surface of the base. A clue is given by a class of seals, three of which have been found at the Argive Heraeum. The upper part of the seal is formed by a couchant beast, and the seal-engraving itself is on the lower surface of the base, upon which the figure rests. Like the Spartan ivories, these seals are pierced, and could thus serve as pendants. It is from such objects that I believe these figures of couchant animals are derived. Their use as seals has practically disappeared, leaving only the practice of occasionally cutting a shallow intaglio or incised pattern as a decoration for the base. Another seal of the same class, found at Kalauria, is of interest, as pointing to Egyptian connexions. It is a scarabaeoid, with the upper part in the form of a hippopotamus, whilst the seal itself has a design of a bowman in a chariot riding down a prostrate foe. Koerte rightly notices the Egyptian style of this, and the hippopotamus also shews the same influence. Still more Egyptian is another similar stone published on the following page of the Mittheilungen, without provenance, but seen in the hands of a dealer at Athens. Above, it has a hippopotamus carved in the round, and on the lower surface the well-known Eye of Osiris. It is also noticeable that, as far as can be judged from a drawing, the Kalauria stone strongly recalls the linear style of the three Spartan scarabaeoids described above, one of which has a very Egyptian element in the design of the outstretched wings.

There is a class of Egyptian seals with carved figures of animals on the upper surface, and although they seem to be very much older than the archaic period in Greece, the Egyptian connexions of the Greek ivories and seals make it highly probable that they carry on the same tradition.

The examples figured offer some further peculiarities. On the body of the bear (Fig. 22 a) is a curious pattern, which looks almost like a wing. It is paralleled by the spiral pattern on the shoulder of the lioness in Fig. 23, which is equally removed from any natural feature of the

1 Waldstein, *Argive Heraeum*, ii. p. 349, Nos. 39-41, Pl. CXXXVIII.
3 As a further sign of Egyptian influence in the Spartan figures, it may be suggested that the long oblong face and peculiar ears of the animal in Fig. 22 f mark it as a hippopotamus, thus bringing this example very close to the Kalaurian seal, about whose Egyptian origin Koerte has no doubt. That it is here shewn devouring a calf, like a beast of prey, is due to Greek ignorance of the habits of the strange beast.
4 These are described by Newberry, *Scarabs*, p. 85.
animal. This lioness is the finest specimen yet found. The great majority of examples have only the single figure of the couchant animal. A very few, like the one in Fig. 22/ above, shew the animal grasping or devouring a victim, but here alone have we a group with three figures. To the beast of prey and its victim the artist has added the avenger, who is shewn as a small figure in front kneeling and stabbing the lioness in the neck. The lolling tongue of the calf and the way in which the cheeks of the lioness are spread above the jaw by the action of biting are admirable touches of realism. The man's head was not recovered, but it is certain, from the position of his hair, which falls forward on one shoulder and rests back on the other, that it is rightly restored as facing outwards. The artist is more skilled in drawing than in sculpture. As a drawing the group, seen from in front, is correct, but as a piece of sculpture in the round it fails in the problem of arranging the bodies of the lioness and the calf in three dimensions. There is in fact no place for the body of the calf at all; only such parts of it are represented as would shew in a drawing taken from the front.

Four-sided Ivory and Bone Seals (Fig. 24).

The three best examples of this class of seals are here given. Their general shape approximates to a cube with a hole passing through the centre of two opposite faces, and the other four faces shaped into ovals and engraved. Some, like Fig. 24/ a and f, are of ivory, others, like the second example Fig. 24/ l, m, n, o, p, are made of bone. In these the hole is simply the tubular hollow of the bone itself, and was filled with
FIG. 24.—FOUR-SIDED IVORY SEALS FROM THE SANCTUARY OF ORTHIA. (SCALE 1:2:1.)
a small plug, at all events at one end. In the example shewn this plug has fallen out. Similar seals were found at the Argive Heraeum. The design, except in the very small example shewn in \( f, g, k, i, k \), is surrounded by a border, and consists as a rule of a figure of a bird, griffin, or sphinx. Exceptional are the face and the man with a shield in Fig. 24 \( o \) and \( i \).

**Circular Ivory Seals** (Fig. 25).

A number of thick ivory discs have been found, which I regard as seals. The thickness is about one-third of the diameter. They are of two types: the first has an intaglio design on either side, the second on one side only, the other being occupied by a face in the round. The first type is shewn in Fig. 25 \( c-g \), the second by \( a \) and \( b \).

The seal in Fig. 25 \( a, b \) (diameter \( 0.036 \) m.) has on the under side a winged griffin surrounded by a narrow border. The head in the round on the upper side would help to give a grip to the user.

The second example \( c, d, e \); diameter \( 0.035 \) m.) has on one side a bearded Gorgon's mask, surrounded by a zigzag border. This is the actual seal. The other side has only a rosette pattern, and in the middle is an oblong hole, which probably served to secure a handle.

The third example \( f, g \); greatest diameter \( 0.028 \) m.) has one face smaller than the other, one end of the cylinder being reduced in diameter by a rebate cut round the edge, as is shewn in the side view \( f \), and is pierced along a diameter. On the smaller end is a swan, with the neck curved over the back, and on the larger a griffin. Such a seal could be held quite well, but it is very likely that the rim on the circumference in this and the second example \( c, d, e \) was to hold some mounting, which has now disappeared. This last seal is exactly the shape of several that were found at the Argive Heraeum.

**Ivory Combs** (Fig. 26).

Combs of this type are not uncommon. Nine examples are recorded, some of them very fragmentary. They are generally decorated with geometrical patterns, ropes, or zigzags, like the example in Fig. 26 \( c \), but figure subjects also occur. Fig. 26 \( a \) and \( b \) shew the two sides of the same

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1 Waldstein, *Argive Heraeum*, ii. p. 353, Nos. 27–29, Pl. CXL.
2 Waldstein, *Argive Heraeum*, ii. p. 351, Nos. 1–5, Pl. CXXXIX. The suggestion that they are covers for vases does not commend itself to me.
FIG. 25.—ROUND IVORY SEALS FROM THE SANCTUARY OF ORTHIA. (SCALE 1\(\frac{1}{2}\) : 1.)
fragment: on one side is a kneeling man, struggling with a lion, on the other a griffin. The style of the work is that of the other ivory reliefs.

*Ivory Statuettes* (Fig. 27).

A type of which several examples have been found is represented by *a* and *d*; *c* resembles a figure published last year,1 and *b* is hitherto unique.

![Ivory Statuettes](image)

It is interesting to note that *a* is only a degeneration of the type of *d*, in which the legs of the man are confused with the block upon which he is

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1 *B.S.A.* xii. p. 328, Fig. 5 4.
sitting. The most important point about these figures is the hair. It is parted along the middle line of the head, and a band passing above the forehead confines the side-locks at about the level of the ears, and then crosses the mass of hair, that falls over the back. The falling masses are marked by horizontal, and sometimes also by vertical, lines. The earlier

Fig. 27.—Ivory Statuettes from the Sanctuary of Orthia. (Scale 3:1.)
figures have the hair cut off below in a sharp line. This is the style which Furtwängler ascribes to the seventh century, between the Geometric and the archaic style of the early fifth century.\footnote{Sitzb. Kgl. Bayer. Ak. 1906, p. 469.} Here belong the two statuettes \(a\) and \(d\), the ivory plaque (Fig. 32), and the terracotta (Fig. 33), which are published below as copies of the xoanon of the goddess. All these were found in the intermediate stratum, in which Geometric and Orientalising ware were found together. This is assigned by the dating adopted in the chronological diagram in Fig. 9 to the first half of the seventh century, a date which agrees with Furtwängler's conclusions.

The other statuettes, \(b\) and \(c\), and the figures on the throne shewn below in Fig. 28 have the masses of hair falling down the back and in front of the shoulders, and ending in separate locks. The throned figures were found in 1906, and their position in the deposit is not known, but the statuettes \(b\) and \(c\) both come from the stratum of Orientalising pottery, which our dating assigns to the end of the seventh and beginning of the sixth century. This also agrees with the results reached by Furtwängler, who puts this style of hair later than that without the separate locks, and contemporary with the archaic ‘Apollo’ statues.\footnote{Op. cit. p. 472.}

**Group of two Men sitting upon a Throne (Fig. 28).**

This was found in 1906 by the river under the Roman foundation. It is 0.6 m. high, 0.425 m. wide, and 0.225 m. from back to front. It is practically complete and externally well preserved, except that one or two laminae have fallen from the faces and clasped hands. As is always the case with the larger ivories, its internal condition is not so good. The laminae of the ivory have warped and become separated, and the whole is now held together by cement. The group consists of two men sitting side by side upon a carved throne, underneath which are two animals. Their heads appear at the sides, and their hind quarters at the back. In the throne itself the tasselled cushion behind the figures is noticeable. The under-surface of the block (\(a\)) has a rosette worked in incised lines. The men wear long embroidered dresses, but the patterns are preserved only on the side. The manner of dressing the hair has already been noted. The hands are very large, the outer pair being clasped and the inner resting on the knees. Except for the two animals,
they have no attributes, and the meaning of the group must remain uncertain.

Drawings on Ivory (Fig. 29 and Fig. 30 a).

The three in Fig. 29 and the large fragment shewn in Fig. 30 a and discussed above are the only drawings that have been found. Figs. 29 a
and c were both found in 1906 by the river, whilst b is from the Orientalising stratum inside the temple.

Fig. 29 a. Plaque, 0.25 m. wide x 0.05 m., broken below. It shews a woman in a long sleeveless chiton, with a high head-dress. If it is the line-sketch for a relief, the finished work would have closely resembled the ivory reliefs from Sparta, which are now in the museum at Dhimitsana.¹

¹ Richards, J.H.S. xii. p. 41.
The holes for attachment are the same in both, and the general style is the same, allowing for the greater stiffness of the work in relief. Both have the curious circular eye.

Fig. 29b. Plaque, 0.03 m. x 0.027 m., with a sketch of a man on horseback. In style it offers a great contrast to the flowing lines of the others, and is clearly a finished piece of work. The curious placing and expression of the figure give it a certain humorous appearance, which is probably intentional.

Fig. 29c. Plaque, 0.032 m. x 0.08 m., broken at one end. It represents a nude man crouching.

Miscellaneous Ivories (Figs. 30 and 31).

Fig. 30a. Described above.

Fig. 30b. Flat bone object, 0.09 m. long, found in 1906. One of two examples. Probably a plectrum. Similar objects, to judge from the illustration, have been found at Ephesus, but preserving much more the form of the natural bone, especially the notches and curves at the hand end, which in our examples are much stylised.

Fig. 30c. Fragment of bone, 0.085 m. long and 0.0175 m. high, representing a couchant lion. Found in 1906. The back shews the hollow curve of the inside of the bone.

Fig. 30d. Ivory pomegranate, 0.03 m. long. Found in 1906. It is represented just after the flower has fallen, when the fruit has set and the seed-vessel is beginning to swell. A similar object has been found in bronze.

Fig. 30e. Horse’s head and neck carved in the round. Length 0.945 m. From inside the temple. It shews no sign of having been joined to a body, and is probably complete in itself.

Fig. 30f. Plaque, 0.095 m. high, broken below, carved in low relief on one side, representing a woman in a cloak, which she holds out in front of her face. As in the drawing in Fig. 29a the style is that of the relief at Dhimitsana, with the same circular eye.

Fig. 31a. Oblong plaque, 0.04 m. x 0.0125 m., decorated with concentric circles, above which is a running figure in shallow intaglio. These plaques are very common, especially in the Orientalising period. The

1 Figured on Pl. 34 of the Ephesus publication; especially No. 43. Nos. 40-42 do not show these details so well.
FIG. 30.—MISCELLANEOUS IVORIES FROM THE SANCTUARY OF ORTHIA. (SCALE 1:1.)
decoration is generally confined to rosettes and circles, arranged as in this example, in panels. In many cases they are pointed at one end and pierced at the other, resembling one found at Ephesus.  

Fig. 31 b. The ivory head of a pin, formed of two animals' heads set back to back above a ball.

Fig. 31 c. Fragment of a plaque with the head of a sphinx.

Fig. 31 d. Flat piece of ivory carved on one side. Warrior's head with helmet with plumed crest and cheek-pieces. The warriors on the moulded pithos found at the Heroön by the river above the Orthia site afford a close parallel.

Fig. 31 e. A bird's beak, worked on both sides.

Fig. 31 f. Ivory double axe, 0.15 m. across. An example of a very common class of object. The zigzag pattern is characteristic.

Fig. 31 g. Fragment of a plaque, 0.825 m. high, broken on both sides. The relief is very low, and the details are hardly more than incised. It was found in the temple at the top of the Geometric stratum, and so is earlier than the other reliefs. This earlier date, probably the first half of the eighth century, suits the undeveloped style of the relief. It was possibly a fibula. The subject is a man standing up behind another, who lies on his back on what is probably a bier. A parallel is afforded by the funeral scenes on Geometric vases. The object in front of the standing figure is not clear.

Fig. 31 h, i. A frog, 0.225 m. long, and a turtle, found in 1906 with the tortoise already published.

Ivory Relief of a Warship (Plate IV. 1, 2).

This is the finest ivory yet found. Like the relief of the slaying of the Gorgon, it is later than the bulk of the ivories, and was found in the Orientalising stratum, between the south-east angle of the temple and the Roman foundation. It may be attributed to the first half of the sixth century. The relief is on a plaque 2.35 m. long, the greatest width of which is 1.11 m. The upper edge is almost straight, the lower nearly the arc of a circle, the area of the plaque being a little less than a semicircle. Round the curved lower edge is a raised border, upon which is a series of sunken circles connected by oblique, tangential lines. These circles were

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1 Ephesus, Pl. 37, 1.  
2 B.S.A. xii. Pl. IX.  
3 B.S.A. xii. p. 328, Fig. 5a.
Fig. 31.—Miscellaneous Ivories from the Sanctuary of Orthia. (Scale 1⅓ : 1.)
no doubt filled with inlays, and, although amber has hardly been found so high up, and its period is so much earlier, it seems quite possible that these were amber, like the eyes of the bird-\textit{fibula} (Fig. 21a). Along the top there is only a raised border. The field thus bounded is filled with a picture of a ship in relief, with three large fish swimming below it. It is a warship, about to set sail, with three warriors seated on the deck, facing the stern, two forward and one aft, with a plumed helmet. Five round shields, decorated with geometrical patterns, hang over the edge of the deck. Of the crew, one is sitting on the raised prow fishing, with a fish hooked on his line, whilst another is crouching on the long beak below. The head of the steersman is seen facing forward—he is sitting under the high, curved stern. The other three sailors are working the rigging. One stands at the bow hauling at the forestay, whilst two more stand by the mast and raise the yard by means of the halyards. At the stern a bearded man, evidently the captain, is saying farewell to a woman, who is no doubt meant to be on land, although, owing to the exigencies of space, she is shewn standing on one of the steering paddles. The captain grasps her right wrist,\footnote{1} and she lays her left hand on his shoulder. Behind the woman is a large bird.

The rigging is very clearly shewn: we can distinguish two of the brailing-ropes for furling the sail, the two braces one at each end of the yard, the two halyards, the forestay, and the upper part of the backstay. The actions of the crew shew that the \textit{ship is setting sail}. The man at the forestay has just hauled the mast up from its place in the \textit{histodoke}, and the two men at the halyards have raised the yard. To add to the liveliness of the picture, these two actions are both shewn together, although they are in fact successive. To start the ship it only remains to unfurl the sail. The retrograde inscription on the prow, \textit{Fophaia}, shews that it was a votive offering to the goddess.

The closest contemporary parallel is the ship on the left hand of the spectator in the sea-fight on the Aristonoos \textit{krater};\footnote{2} although the numerous representations of ships of the same type on vases and \textit{fibulae} of the Dipylon style are very useful. The general form, with raised stern and

\footnote{1}{For the significance of this attitude see J. F. White, \textit{J.H.S.} xviii. p. 133.}

\footnote{2}{Walters, \textit{History of Ancient Pottery}, Pl. XVI. For ships on \textit{fibulae} see \textit{B.M. Cat. of Bronzes}, Fig. 85, and \textit{Ep. Argos} 1892, Pl. 11. References for vases are given below, and are also collected in \textit{Ath. Mitt.} xvii. p. 285.}
prow and a ram, is the same in all. The vase-paintings generally shew oars, whilst the Spartan ship has only a sail, but it can hardly be doubted that oars could also be used on occasion. Of these there would be only one bank on each side, as there is no sign of the bireme arrangement. In this it agrees with the Dipylon ships. Some of these indeed shew two sets of oarsmen, one above the other, but the upper row I believe is always intended to represent those on the far side of the ship.  

The Dipylon ships generally have a deck running from stem to stern, at a higher level than the gunwale; this deck is supported by struts below, between which the oarsmen on the near side are sometimes shewn. Each man appears in a kind of frame, formed by the deck above, the gunwale below, and a deck-support on either side. In accordance with the primitive system of drawing the deck is represented, not as it should be by a line, but by a rectangle, as if it were seen in plan. Above it are either the warriors and sailors, in what is their true position, or else the further row of oarsmen, who really are below it, but are represented thus in obedience to the convention that what is further from the spectator is to be drawn higher up than what is closer. The confusion between the further oarsmen and the actual occupants of the deck arises from the practice of using the higher level indiscriminately for both further and higher objects, i.e. placing further objects above nearer, as well as higher above lower. It thus becomes necessary to use other means to discriminate between them.

The Aristonoos krater shews an advance in drawing, in that the deck is represented in perspective correctly, by a line, and not as if in plan, by a rectangle. It is shewn in the same way on the Spartan ivory, where the line appears partly covered by the lower margin of the shields. The supports shew below this line, and with the gunwale below and the deck above, form the rectangles through which the rowers would be seen. The right-hand ship on the krater is like the Spartan one in shewing the supports of the deck, and a mast but no rowers: the other ship has four rowers. On all three examples the deck is occupied by the warriors. Three only of these are shewn on the ivory, but there are five shields.

1 Murray's arguments in J. H. S. xix. p. 198, that the Dipylon ship, which he publishes there, is a bireme are not convincing. Much stronger on the other side is Pernice, Jahrbuch, xv. p. 92.
2 Ath. Mitt. xvii. p. 298, Figs. 5, 6, and p. 303, Fig. 9.
3 Mon. Grecs, ii. p. 51, Fig. 3; Arch. Zeit. 1885, Taf. 8; 'Eph. 'ApX. 1898, Pl. 5, 1.
4 Rayet et Collignon, Céramique Grecque, p. 29, Fig. 20, and Mon. Grecs, ii. Pl. 4.
These shields add much to the resemblance to the picture on the krater. There are four other occupants of the deck: two are the sailors at the halyards, another is the man hauling up the mast, and the fourth is the steersman. He occupies the same raised position on the deck as he does on some of the Dipylon vases.¹

The same type of ship is seen on black-figured and red-figured vase-paintings, and it is these that best illustrate the rigging. The Dipylon sails seem, like the Egyptian, to have a second yard below. The Spartan ship almost certainly resembles these later vase-paintings in having only one yard. Two black-figured kylikes from Vulci afford the best parallels.² On these the war-ships are exactly the same, except for the more elaborate stern, and shew the rigging, sheets, stays, halyards, and braces, equally fully. The deck at a higher level than the rowers was a feature also of these ships, and was occupied in the same way by the soldiers.

A lebes from Boeotia of the Dipylon period, now in the British Museum, presents a parallel to the scene of parting at the stern between a man and a woman.³ Murray considers that this is a scene at the beginning of a race held at a funeral as a part of the games, and that the captain is stepping on board to compete for the crown which the woman is holding in her hand. The Spartan ship cannot bear this interpretation. As the inscription shews, it is a votive offering, and it is natural to take the scene, therefore, as the departure for a voyage. Its resemblance to the Boeotian ship makes it at least likely that this also has the same meaning.

Representations of the Goddess.

On the ivory plaque shewn in Fig. 17 b we have the type of the winged Artemis which is so common among the lead figurines. The plaque in Fig. 18 a shews the goddess surrounded by four water-birds; these birds and those which she is holding in the lead figurine published last year,⁴ shew the conception of Artemis as the water-goddess. Lastly, the

¹ 'Εφ. 'Αρχ. 1898, Pl. 5, 1; Dar. and Sagl. Fig. 5264. This construction, with the deck and its supports, appears in a clay model of a ship in the museum of Corpus Christi College, Cambridge. I judge by the drawing in Dar. and Sagl., Fig. 5269.
² Figured in Torr, Ancient Ships, Pl. IV. 17, 18, 19. For the decks see Torr, p. 49, who quotes Thucydides, i. 49: πολλοίς μὲν ἐπιλήται ἔχοντες ἀμφότεροι ἐπὶ τῶν καταστροφῶν.
³ Published by A. S. Murray, J.H.S. xix. p. 198, Pl. VIII.
⁴ B.S.A. xii. p. 323, Fig. 3 b.
numerous representations of animals that have been found shew her under her aspect as the goddess of animal life, the πότνια θηρῶν. This last is shewn by the terracotta figure in Fig. 33 b, no doubt intended for the goddess, which shews a lion standing on his hind legs by her side, whilst she rests her right hand on his head, and with the left grasps his left front paw. A Geometric sherd (Fig. 3 F, p. 124), on which are an animal and part of a figure, probably belongs to the same series.

All these conceptions go back in Greece to as early as the Geometric period. The winged Artemis has been discussed by Koerte in connexion with the Dorylaeum stele; he maintains that the type is Greek and not Oriental, although he admits that the idea of a winged goddess may have come from the East. He denies, however, the connexion with the Persian Artemis, which is supported by Radet and Ouvré. The popularity of this type during the Archaic period is probably due to its being an Oriental type, and consequently much copied, but the presence of a winged figure with birds on a coffer from Thebes in the Boeotian Geometric style shews that it was already known in Greece even earlier.

In view of the rarity of monuments shewing Artemis as goddess of the waters, the water-birds which appear at Sparta as her attributes are of great interest. The situation of the sanctuary by the river, ἐν λίμναις, falls in with this aspect of the goddess. A Geometric vase from Boeotia, which shews her with a fish on her dress and surrounded by animals, speaks for the antiquity of both this and also the πότνια θηρῶν type of the goddess.

The Gorgon-masks which Professor Bosanquet has shewn were used in the worship of Orthia, and the numerous gorgoneia in lead and ivory suggest a comparison with the Rhodian plate in the British Museum, which shews a bearded four-winged Gorgon grasping two water-birds. This combination of Gorgon and πότνια θηρῶν suggests that the Gorgons at this sanctuary may have some very close connexion with one of the aspects of the goddess herself. Especially noticeable is the bearded Gorgon on the seal shewn in Fig. 25 c.

1 Vide infra, § 6.  2 Ath. Mitt. xx. pp. 1 sqq.  3 B.C.H. 1894, pp. 129-136.  4 Walters, Ancient Pottery, p. 289, Fig. 86.  5 Farnell, Cults of the Greek States, ii. Pl. XXIX. a.  6 B.S.A. xii. p. 338.  7 J.H.S. 1885, Pl. LIX.; J. E. Harrison, Prolegomena, p. 193.
The temple image was certainly so primitive as to be without the attributes which mark these types. Its general appearance is probably preserved to us by a carved ivory and a terracotta figure, both found this year in the archaic deposit.

The ivory (Fig. 32) is a plaque 0.08 m. high, 0.37 wide, and 0.005 m. thick. It was found inside the temple, and represents, in much deeper relief than usual, a female figure with the arms hanging straight by the sides. On the head is a polos decorated with a pattern of circles. The
dress reaches to the feet, and is girt with a belt. The body, a band down the front, and the lower part of the skirt are covered with chequer patterns of incised lines. Between the figure and the frame there are on each side three raised bars. These have no meaning in the design,
but are pieces left to take three rivets which passed from side to side of the plaque. The side view shews these rivet-holes, and there are two more in the bottom edge. The irregular mass that appears behind the plaque in the side-view is a brown substance, probably some very hard wood, fastened to the plaque by three rivets. The ivory was thus rivetted at the back and sides into a frame, probably wooden, with which its face in front was flush.

With this object should be compared the terracotta figure which has been reproduced from a water-colour drawing in Fig. 33a. Its height is 0.085 m. The position and dress, with the horizontal band of decoration round the bottom of the skirt, are exactly the same as those of the ivory. The heavy side-locks and thick lips are also the same. The only difference is that the terracotta has no polos.

If these two objects are compared with the image of Artemis dedicated by Nicandra of Naxos at Delos, it will be seen that the resemblance is very striking. Their resemblance to it and to one another suggests that they are copies of the temple-image of Orthia, the ancient xoanon, about whose origin there were such strange legends.

R. M. Dawkins.
SANCTUARY OF ARTEMIS ORTHIA
SPARTA 1907

SCALE 1 : 200
Sanctuary of Artemis Orthia Sparta 1907

Restored Section on Line A--B

Section on Line C--D

Scale 1:200
Sparta: Ivory Relief of a Warship from the Sanctuary of Orthia.

A. From a Photograph. (Scale 5:9.)
B. From a Drawing. (Scale 1:1.)