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Excavations at Zerélia, Thessaly

A. J. B. Wace, J. P. Droop, M. S. Thompson and Wilhelm Vollgraff

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FIG. 1.—MAP OF PART OF NORTH GREECE.

EXCAVATIONS AT ZERELIA, THESSALY.

THE mound known as Zerélia stands on a hill between two small lakes to the south-west of Almyró in Phthiotis (Fig. 1). Recent writers on the topography of the district have conjectured that this was the site of Itonos and the famous temple of Athena Itonia.¹ We first visited the site in July 1907, and believed, that apart from the question of the site of the

¹ Staehlin, *Ath. Mitt.* 1906, pp. 15 ff.

temple, it would repay excavation, since we recognised that the mound (Fig. 2) was probably formed by the accumulation of débris from prehistoric settlements.¹ Thanks to a grant from the Cambridge University Worts Fund, and to subscriptions from several friends we were enabled to excavate here in June 1908. The actual excavations, during which we employed eighteen men, lasted three weeks. Dr. Vollgraff, who had cut a trial trench along the mound in 1906,² most courteously waived his claims on the site in our favour. We are much indebted to Dr. Varvaessos, the President, Mr. Giannopoulos, and other members of the Othrys Archaeological Society, and also to Dr. Arvanitopoulos, the government Ephor,

FIG. 2.—ZERELIA FROM THE SOUTH.

and our hearty thanks are due to Mr. Vasilakis for allowing us to live at his farm at Karatzadagli. The finds are now arranged in a separate case in the local Museum at Almyró.

THE BYZANTINE AND HELLENIC REMAINS.

On the surface of the mound and just below it we found several fragments of glazed Byzantine pottery similar to that from Pergamon,

¹ Cf. Tsountas, *Προϊστορικαὶ Ἀκροπόλεις Διμηνίου καὶ Σέσκλου*, p. 11, 61; this book will be cited throughout as Tsountas.

² See below, p. 224.

Priene, Sparta, Constantinople and other sites.¹ Below this is a thin Greek layer, which nowhere goes deeper than one metre from the surface. In this many fragments of late black glazed vases were found, which cannot be earlier in date than the late fourth century B.C. These appeared in connection with several walls badly built of rough stones, which lie close to the surface, and seem to indicate the existence of a small hamlet here (Plan, Fig. 3, M, N, O, P, Q, R). We found no confirmation of Dr. Staehlin's theory that a Greek circuit wall ran round the top of the mound.² The wall marked R on the plan is quite short, although it lies on the south-western slope of the hill. At one point (Plan, O) we found with the Greek sherds three iron implements, a sickle, a lance, and a spear-head, and three stamped tiles. Two of the tiles bear a peculiar stamp showing an ithyphallic man in profile to the left; on each side of them is a $\oplus$. On the third tile the stamp, which is incomplete, appears to represent a rosette. Thus our results agree with those of Dr. Vollgraff, who concludes that the temple of Athena Itonia did not stand here.³ There seems little doubt that the Homeric Itonos was in Phthiotis; so, since Zerélia is the principal prehistoric site in southern Phthiotis, and as the mound is similar to those of Pyrasos and Phylake,⁴ we may provisionally identify Zerélia as the Homeric Itonos, for the distance from Halos agrees with Strabo's estimate.⁵ Then we may conjecture the town at Karatzadagli to be the Phthiotic Itonos of historical times, where there probably stood a temple of Athena Itonia. But there is every reason to follow C. O. Müller⁶ in placing the pan-Thessalic shrine of Athena Itonia near Kierion. Strabo seems to confuse this with Itonos. In one passage he says that Itonos was in Thessaliotis, and in another that the shrine of Athena Itonia stood on the banks of the Cuarius,⁷ which flows into the Peneius by Pharcadon.⁸ Since, then, excavation has given a negative answer to the theory of Staehlin and Giannopoulos, we must suspend judgement till further exploration or excavation near Kierion.

¹ v. *Ath. Mitt.* 1904, pp. 204 ff.; Wiegand-Schrader, *Priene*, pp. 491 ff.; Wallis, *Byzantine Ceramic Art*.

² *Ath. Mitt.* 1906, p. 16.

³ v. below, p. 225.

⁴ *Ath. Mitt.* 1906, pp. 10, 13.

⁵ Sixty stades, ix. 433.

⁶ *Dorier*, ii. p. 477.

⁷ ix. 435, 437.

⁸ Bursian, *Geographie von Griechenland*, i. p. 52.

FIG. 3.—ZERELIA, PLAN AND SECTION OF MOUND.

THE PREHISTORIC SETTLEMENTS.

Directly below the Greek layer we found a rich prehistoric deposit¹ from six to eight metres thick, of which the mound is built up. In this we dug a series of shafts down to virgin soil, along a line drawn across the mound, in order to determine the stratification of the deposit, and to draw up the section shown in Fig. 3. The shafts were sunk on a system of levels, each of which was on an average about 30 m. thick, and the pottery and other finds from each level were kept separate. Thus, when each shaft reached virgin soil, a complete stratigraphical record was obtained of the objects found in it. A levelling instrument was in use throughout the excavation to measure the different levels of the shafts. The following reports of the finds have been drawn up on the data obtained from the stratified pottery, and from the observations recorded during the sinking of the shafts. In the sides of the shafts successive layers of reddish earth appeared. These, which are without doubt the remains of huts of mud brick destroyed by fire, divide the mound into eight clearly marked layers. They were not obvious at first during the excavation, but the system of levels enabled us afterwards to correlate the settlements with the pottery and other objects. We thus assume that on this site eight successive settlements or hamlets were built one on top of another. These provide a convenient basis for the description of the finds, and a discussion of the differences observed in them in the various levels.

SETTLEMENTS.	1	2	3	4	5	6	7	8
Fine red ware	—	—	—	—	—	—	—	—
Red on white ware . .	—	—	—	—	—	—	—	—
Dimini ware		—	—	—	—	—	—	—
Coarse monochrome ware		—	—	—	—	—	—	—
Black polished ware . .		—	—	—	—	—	—	—
Wheel-made vases . . .			—	—	—	—	—	—
Mycenaean sherds . . .				—	—	—	—	—
Cist tombs								—
Approximate dates B.C.	2500 B.C.			2000 B.C.				1100 B.C.

FIG. 4.—DIAGRAM TO EXPLAIN STRATIFICATION.

¹ Cf. *Ath. Mitt.* 1908, pp. 289, 290; *J.H.S.* 1908, pp. 323 ff.; *Classical Review*, 1908, pp. 234, 235; *Annals of Archaeology and Anthropology*, 1908, part 4.

Of the actual huts, which composed the settlements, beyond the remains of mud brick already mentioned, we found no traces to enable us to determine their shape. The bricks are made of coarse, unpurified local clay, well mixed with grass or straw. But in the second settlement towards the south-east corner of the mound (Plan, L) we found the remains of a well-preserved building. Thick walls of mud brick (.65 m. thick) still stand to a height of .80 m. on a dry course of slabs (Fig. 5), and at the ground level outside are faced with upright slabs to prevent injury from rain and damp. We were not able to lay bare all this building, but from the part excavated it is clear

FIG. 5.—BUILDING IN SECOND SETTLEMENT.

that it was angular and not round. On the opposite side of the mound (Plan, J) we found remains of walls of mud brick very badly burnt and decomposed, which also belonged to the second settlement. A little below this and in the field at the foot of the mound we discovered traces of a round building (Plan, K) with an opening to the north. The purpose and date of this building are obscure. Some human bones were found in it, which to judge by some coarse, presumably Byzantine, sherds with them are apparently of late date.

FIG. 6.—POTTERY WITH RED DESIGNS ON WHITE GROUND. (SCALE 1 : 3.)

§ 1.—THE HAND-MADE POTTERY.

The hand-made pottery found at Zerélia may be divided into two main groups, namely, pottery made locally, and imported pottery.

Pottery made locally.

1 (Tsountas,¹ A 3 β).

Pottery with red decorations on a white ground. The clay, pink, rather coarse and often showing white granulations, is covered by a thick surface highly burnished, usually white, but sometimes cream-coloured. The colour of the red paint varies, but approaches most often to the colour that is sold under the name 'Light Red.' The peculiar patterns are

FIG. 7.—POTTERY WITH RED DESIGNS ON WHITE GROUND. (SCALE 1 : 5.)

illustrated in Figs. 6, 7. Some sherds are found that probably belonged to jugs (Fig. 8, *f, g, o*), but the vast majority are pieces of wide dishes without handles (Fig. 8, *k*) painted inside as well as out. Patterns from the bottoms of such dishes inside, none unfortunately complete, are shown in Fig. 7, *a, b, c, d, h, i, k, l, o, p, q, r, s, t*, while the other patterns shown decorate the sides.

2. Coarse ware of the same clay as the preceding with a surface of a dull red colour not much burnished. None of these vases are very large, and their probable shapes are given in Fig. 8 *f, g, k, m, o, p*, of which the

¹ Tsountas, p. 177, Pls. 7, 15.

jug-forms *f, g, o*, occur most often. Only one specimen with a sieved spout (*m*) was found.

FIG. 8.—SHAPES OF POTTERY. (SCALE 1 : 4.)

3 (Tsountas, A 1).

A class of small, very finely made vases.¹ The same clay was

¹ Tsountas, pp. 160-164.

probably used, but it is much more purified, as the white granulations do not appear. The surface is red as a rule, but sometimes yellowish, and smooth, yet their smoothness appears to be less due to burnishing than to the fineness of the clay, which also made it possible to make the vases very thin, the sides being sometimes less than .002 m. thick.

Fig. 8, *h, i, l, n, p, q*, show some of the probable shapes, of which *i* is the most common. Low, round (Fig. 8, *l*, on the handle), and oblong bulbs form the sole decoration. Two or three fragments, however, one of a jug (Fig. 7, *e*), larger than most, show a decoration in dark red paint.

These three styles are contemporary and are the local ware of the earliest settlements. They abound in the first four settlements, are found in less quantity in the fifth, and still less in the sixth, and a few sherds of *i* were even found in the seventh settlement.

4. Polished ware of a coarse clay that is generally grey at the fracture, but on the surface is red, black, or yellow-brown, the latter perhaps most often, while some pieces are red inside and black on the outer surface. In general the ware is coarse, but some pieces, particularly of the black variety, are very well made. Most of our fragments come from bowls, some of which are illustrated in Fig. 8, *a, b, c, d*, where the profile only, and the curve of the rim are shown, while the complete shape of a smaller specimen is given at *e*. This last is interesting on account of the suspension holes, of which there were probably two pairs on each side, and the thickening of the vase on the inside, just where they are placed, to make room for them. The handles belonging to this ware are for the most part rudimentary (Fig. 9, *d, e, h, i, k, l*), for there is seldom space for the insertion of a finger. Fragments were found of a more developed type of flat handle, that projected probably from the lip of a bowl.¹

This ware is plentiful in the fifth, sixth, seventh, and eighth settlements, and is also found in the fourth, and in much smaller quantity in the third, while two or three sherds were even found in the second settlement.

5. Large vases made of very coarse clay often badly baked, and in colour generally grey, but sometimes red. The majority of the vases were probably large bowls and flat-bottomed dishes, and perhaps jugs also

¹ Tsountas, p. 269, Fig. 186.

were made. They are decorated very occasionally with incised lines, and mention may be made particularly of the inside of a dish with crossed lines incised on the bottom. Their handles (Fig. 9, *f, n, p*) are of a comparatively useful character. Like the rough polished ware this class of vase belonged substantially to the later settlements, though it is first found in small quantities in the second settlement. It has not been

FIG. 9.—UNPAINTED POTTERY FROM THE LATER SETTLEMENTS. (SCALE 1 : 3.)

possible to observe any change or development in this ware in the different settlements. To this class belong the two vases shown in Fig. 10. These, the most complete of our vases, were found with the terracotta figure (Fig. 18) in the burnt and decomposed mud brick of a hut of the seventh settlement. To the fact that they were destroyed by the burning of the hut we owe it that we have them so nearly entire. In both vases the clay is

red and of a somewhat finer consistency than is general among this coarse ware. The bowl measures an average of .28 m. across, and has a string hole by the rim. We know of no parallel to the other vase, which stands about .40 m. high, with a neck, however, that is raised, probably with intention, about .04 m. higher in front than behind. The small lugs on either side of the neck are pierced with two holes, either to allow of the attachment of a lid, or, more probably, in view of the shape of the neck, to make it easy to hang up the vase. An odd point about the two flat handles

FIG. 10.—UNPAINTED VASES FROM THE SEVENTH SETTLEMENT.

is that they are attached in a slanting position. The photograph does not show this very well, but they slant backwards and upwards from the body.

6. Hardly to be separated from the preceding class is a group of large pithos fragments. These, however, are not found lower than the third settlement, and are often decorated by means of raised lines of applied clay, either slashed across (Fig. 9, *g*), or pinched in by the finger (Fig. 9, *m*), and sometimes a raised spiral is found (Fig. 9, *a*) occasionally also slashed.

These six classes exhaust the wares that are certainly of local

manufacture. There is no clear break between the three which definitely mark the lower settlements, and the three which belong mainly to the upper; but it should be observed that the coarse ware of the earlier period (2) is often little coarser in manufacture than the finer ware (4) of the later, and its vases seldom are larger. In the later period some good vases were made, but apparently none very small or fine, while some of the fragments of coarse ware must have belonged to very large vases.

Imported Pottery.

7 (Tsountas, B 3 a).

The well-known ware with curved and geometric designs in dark paint on a burnished ground that is either cream-coloured or red, of which much has been found at Dimini and Sesklo.¹ Of the former kind we found five

FIG. 11.—POTTERY WITH WHITE PAINT ON RED SURFACE. (SCALE 1 : 2.)

sherds, and of the latter fifty-six, distributed from the second to the seventh settlement, the greatest quantity being found in the third.

8 (Tsountas, B 3 a).²

A ware kindred to the last, of which a few sherds have been found at Zerélia, shows white paint applied to a red burnished surface. The clay is grey at the fracture and most pieces seem to come from bowls not unlike the shape characteristic of 7,³ and the patterns show similar curved and geometric features (Fig. 11). The connection between these wares is

¹ Tsountas, p. 209, Pls. 8, 9, 20-29.

² Tsountas, Pl. 6, 2.

³ Tsountas, Pl. 9.

clearly shown by the fact that some sherds have patterns in black on the inside with white paint on the outer surface. Three sherds of this ware were found in the second, two in the third, three in the fifth, and three in the sixth settlement.¹

9 (Tsountas, B 3 β).²

Ware decorated in black and orange-red on a light ground. Grey clay. The ornament is linear (Fig. 12, *f, h*) and the red paint is generally

FIG. 12.—POTTERY WITH BLACK AND ORANGE-RED DESIGNS. (SCALE 1 : 2.)

bounded by thinner black lines. The inner sides of these sherds have long spikes of thin reddish paint down from the rim. Four sherds were found

¹ Much of this ware has been found at Phthiotic Thebes by Dr. Arvanitopoulos.

² Tsountas, p. 222, Pls. 8, 10.

in the third settlement, two in the fifth, one in the seventh, and one in the eighth.

10 (Tsountas, B 3 γ).¹

This ware is very similar to 9 (Fig. 12, *a, b, c, d, e, g,*), but the red and black are kept separate, and the patterns appear to be less rectangular and more bizarre.

11. A few incised sherds other than parts of pithoi have been found at Zerélia, of which some are in rough unburnished clay, but most have a black, more or less burnished surface, and show traces of white filling to the incisions, which are geometric in character with patterns of dots and straight lines.² Bowls with no foot and one or more lugs (Fig. 9, *o*) seem to have been affected in this ware, of which the few sherds that have been found at Zerélia were distributed from the third to the seventh settlement, with a slight predominance in the fourth.

12. In the third settlement were found a few sherds showing brown paint on an unburnished surface that is usually grey but in one instance white. The most distinctive features in the patterns are bands slanting down the vase, toothed or waved on one side but straight on the other. These few odd sherds deserve mention, but do not fit into any known class of ware.

The point that is brought out most clearly by the study of this pottery is the artistic degeneration that overtook the makers of the early wares, for the art of painting pottery was gradually abandoned, and the later unpainted ware cannot compare in excellence with the fine unpainted fabric of the early period.

With regard to the imported ware (7, 8) (Tsountas, B 3 *a*), the evidence from Zerélia shows that it appears at a rather later date than the ware with red-on-white decoration (1), practically not until the third settlement, for very few sherds indeed of it were found in the second. Thus we agree with Tsountas, who places this typical Dimini ware to a later period than that with red decoration on white; but it seems only partially correct to call it later. The truth probably is that in the districts where the later ware flourished (round Tyrnovo, Larissa, Velesino, and Dimini)³ it

¹ Tsountas, p. 226, Pls. 6 (3), 11.

² Tsountas, p. 252, Figs. 154-159.

³ Tsountas, pp. 3-12.

supplanted the earlier, which, however, elsewhere, where the new style made no headway (round Sophades, Pharsala, and in Phthiotis), survived to be contemporary with it. The evidence from Zerélia also confirms Tsountas in placing the wares with orange-red and black decoration later (9, 10) (B 3 β, B 3 γ), though the district where they flourished has not yet been ascertained.

§ 2.—WHEEL-MADE POTTERY.

Fifteen sherds of late Mycenaean ware (Late Minoan III) were found well mixed with the ware of the eighth settlement. Near the surface also were several fragments of bowls with a high ringed stem, and two flat

FIG. 13.—WHEEL-MADE POTTERY FROM THE EIGHTH SETTLEMENT. (SCALE 1 : 3.)

perpendicular handles rising almost to the rim (Fig. 13, *a, b, c, e*). The clay of this ware is usually grey, but a few of the fragments show it yellow. This ware is so common at Orchomenos that it is probable that it is local to that place, but a vase of the ware was also found in the fifth shaft grave at Mycenae,¹ while several fragments have been found at Thoricus in Attica,

¹ Schliemann, *Mycenae*, p. 154, Fig. 230.

and in the latest city at Phylakopi,¹ so that the Mycenaean date of these vases can be taken as sufficiently certain. In Thessaly one has also been found in a tomb at Sesklo,² and fragments have been discovered at the mounds of Aidin,³ Karabairam (Tsangli),⁴ and Rini.⁵

Parallels to the vase shown in Fig. 13, *d* come from the city tombs of Sesklo,⁶ and the ware greatly resembles the ring-footed vases and probably belongs to the same period. Not much can be said of the two vases of grey clay shown in Fig. 13, *f, g* which also were found near the surface in the eighth settlement, except that they are so badly made that it is hard to see if the wheel was used or no. That shown in Fig. 13, *h*, which was found in Tomb D, is, on the other hand, certainly wheel-made, and likewise of grey clay. It somewhat resembles the ring-footed ware.⁷

It is interesting to note that two or three sherds were found at Zerélia of a 'Geometric' ware that is somewhat similar to that found at Marmarianí,⁸ Theotókou,⁹ and Pagasae¹⁰ in Thessaly, and in the island of Skyros.¹¹

§ 3.—THE TOMBS.

In the top of the remains of the eighth settlement we found eight cist tombs (Fig. 3, A–H). These were as a rule built with four slabs for the sides and covered with a fifth (Fig. 14). In every instance the skeletons, which were in a contracted attitude, lay on their left sides (Fig. 15, *a*). One tomb (H) had two slabs on one side. Of the eight tombs, C, E, and G contained nothing but one skeleton each. Tomb A yielded a conical terracotta whorl, H a small flint chip, and D a one-handed, wheel-made jug of grey-black ware (Fig. 13, *h*),¹² the handle of which was broken off before it was placed in the tomb. In tomb B we found beneath half a wheel-made pithos of coarse red ware with two holes bored in the bottom (Fig. 16) the skeleton of a child, whose head and chest were covered by the vase. With the bones were four

¹ *Phylakopi*, p. 154. These fragments, though not illustrated in the book, are in the National Museum at Athens. Other fragments have been found at Tiryns and at the temple of Aphrodite in Aegina.

² Tsountas, p. 139, Fig. 40.

³ Tsountas, p. 12, 60.

⁴ Tsountas, p. 8, 38.

⁵ Tsountas, p. 131.

⁶ Tsountas, pp. 134, 140, 141, Figs. 34, 42, 45.

⁷ We may compare with it Tsountas, p. 138, Fig. 39.

⁸ *Πρακτικά*, 1899, p. 101; *Ath. Mitt.* 1896, p. 247.

⁹ *B.S.A.* xiii. pp. 321 ff.

¹⁰ *Ath. Mitt.* 1889, p. 266, Pl. XI. 8.

¹¹ *B.S.A.* xi. p. 79, Fig. 3.

¹² See above, § 2.

FIG. 14.—TOMBS B, C, AND D.

a. TOMB H.*b.* TOMB F.

FIG. 15.—CIST TOMBS.

largish glass beads, five small paste beads, one bronze bead, and a piece of twine with a small piece of bronze attached. These beads were probably hung round the neck of the body when it was placed in the tomb. Tomb F contained a bronze knife (0.85 m. long) with a flat tang for a wooden handle and slightly bent up at the end, a flint arrow-head, and a bored celt (Fig. 15, *b*). The skeletons in tombs D and H were probably those of women, and that in F of a full-grown man.

FIG. 16.—PITHOS FROM TOMB B. (SCALE 1 : 3.)

These tombs closely resemble those found by Tsountas at Sesklo, and Dimini,¹ also those at Orchomenos,² and those found by Dr. Doerpfeld in Leukas.³ It seems reasonable to imagine that all belong to about the same period. At Dimini, two of the tombs contained late Mycenaean vases⁴ (Late Minoan III), and at Sesklo one tomb yielded a ring-footed cup⁵ like those described above, and another a spear-head which resembles others from Leukas and the fourth shaft grave at Mycenae.⁶ At Orchomenos the tombs, in some of which the bodies were covered with the halves of pithoi,⁷

¹ Tsountas, pp. 125 ff.

² Bulle, *Orchomenos*, i. pp. 61 ff., Pls. XXII. ff.

³ Doerpfeld, *Vierter Brief über Leukas-Ithaka*, p. 8. Compare also the Tombs at Tiryns, *Ath. Mitt.* 1907, p. iii.

⁴ Tsountas, pp. 150 ff.; Tsountas, it is true, dates these two tombs much later than the others: this is due entirely to the early date which he assigns to the beginning of the Thessalian Bronze Age; *v. below*, p. 222.

⁵ Tsountas, p. 139, Fig. 40.

⁶ Doerpfeld, *op. cit.* p. 10.

⁷ Bulle, *op. cit.* Pl. XXV. 1.

belong to the third stratum, the so-called Minyan or early Mycenaean, in which ring-footed cups were found in great quantities. The only difficulty is that at Zerélia the ring-footed cups and the tombs were found at a slightly higher level than the late Mycenaean sherds, while at Orchomenos the late Mycenaean is the fourth stratum, which directly succeeds the third (Minyan) stratum of the ring-footed cups. But since such cups have been found at Mycenae in the fifth shaft grave, at Thoricus with late Mycenaean pottery, at Tiryns, and Aegina, and in the latest settlement at Phylakopi,¹ we may assume the third Late Minoan period as a general date for the tombs, which would then be not later than 1200–1100 B.C. We must leave open the question whether the people who made the cist tombs were of the same race as those of the earlier settlements, and also we cannot be sure whether, if they were a new race, they came from the south or from the north, and finally, there is no definite evidence to prove that they lived on the mound where they buried their dead.

§ 4.—THE TERRACOTTA STATUETTES.

In the first settlement only two terracotta figurines were found. One (Fig. 17, *d*) is rather flat and shapeless; the head and legs are broken off, but the figure was apparently female, although the front of the body is very badly damaged. The other (Fig. 17, *g*) is a leg from a seated steatopygous female figure similar to those from Sesklo (Tsountas, Pl. 32).

Second settlement: to this belongs the head of an animal (Fig. 17, *l*), which resembles an example from Sesklo (Tsountas, Pl. 34, 11).

Third settlement: in this we found a fragment of a steatopygous figure like those from Sesklo already referred to, two rude female figures (Fig. 17, *c, e*), one of which recalls an example from Sesklo (Tsountas, Pl. 35, 1), and two shapeless statuettes which recall the ruder types from Dimini (Tsountas, Pls. 35, 6, 7; 36, 1–5).

To the fourth settlement belongs a very good example of the steatopygous type, unfortunately much damaged (Fig. 17, *a*). It is of the same clay as the red-on-white ware,² and shows the same style of decoration. The whole figure was covered with a white slip on which patterns were painted in red; those still preserved on the thigh represent chevrons.

¹ *v.* above, § 2.

² Cf. above, § 1, 1.

In the sixth settlement were found two stone fiddle-shaped figures, and a rude female figure (Fig. 17, *f*), like an example from Sesklo (Tsountas, Pl. 35, 1).

FIG. 17.—TERRACOTTA STATUETTES. (SCALE 1 : 2.)

Seventh settlement : to this belongs a columnar statuette (Fig. 17, *b*), which was painted in the red-on-white style, and is somewhat similar to the figures from Dimini (Tsountas, Pls. 35, 6, 7 ; 36, 6), a shapeless figure like those from the third settlement (cf. Fig. 17, *k*), with holes in the top

for the insertion of a head as in some examples from Dimini (Tsountas, p. 285), and the seated male figure shown in Fig. 18. This remarkable

FIG. 18.—MALE TERRACOTTA STATUETTE.
(SCALE ABOUT 1 : 2.)

statuette, which is 12 m. high and is practically perfect, represents a seated ithyphallic man with his hands on his knees, looking upwards. The feet are flat and pointed, the nose and ears are prominent, and the top of the head runs up into an odd peak. The figure is hand-made and, though its technique is rude, its execution is vigorous and decided. This is the first prehistoric figure of the kind yet found in Greece, and its phallic character stamps it as the work of a people alien to that which made the Mycenaean terracotta statuettes.

Eighth settlement : to this belongs one statuette (Fig. 17, *h*) almost exactly like the examples from Dimini already mentioned (Tsountas, Pls. 35, 6, 7 ; 36, 4-6).

Besides these figurines we found five others, of which the stratification is uncertain, on the slopes of the mound : one is like Fig. 17, *b*, two like Fig. 17, *k*, one like Fig. 17, *h*, and the other is a small head (Fig. 17, *i*), similar to a head from Sesklo (Tsountas, Pl. 34, 8).¹

It will thus be seen that in general the well-made steatopygous figurines (Fig. 17, *a, g*) are earlier than the ruder and columnar type, and that the early plastic art of Thessaly degenerated instead of progressing. These observations agree with Tsountas' conclusion from his excavations at Sesklo and Dimini.² Even the seated male figure from the seventh settlement (Fig. 18), when compared with the steatopygous figures, although rather more freely handled, has a rough and not a smooth surface, and appears less carefully modelled as regards details.

¹ A similar head in the Almyrô Museum comes from the mound of Tsangli (Karabairam), Tsountas, p. 8, No. 38.

² Tsountas, *op. cit.* pp. 286, 287.

§ 5.—STONE AXES AND OTHER IMPLEMENTS.

Throughout the excavation we found many celts and other stone implements, which occurred in the remains of all eight settlements. These may be classified as follows:—

FIG. 19.—STONE AXES. (SCALE 1 : 3.)

1. Chisels: (*a*) thick and flat with squared sides, bevelled and narrow blades, shaped like Tsountas p. 314, Fig. 340; 3 specimens (Fig. 19, *b*); (*b*) flat, and with broad blade, 1 specimen (Fig. 19, *c*), cf. Blinkenberg,¹ p. 22, 4.

¹ Blinkenberg, *Archaeologische Studien*.

2. Triangular celts: (*a*) small, thin, 5 specimens, one of which has a slightly bevelled blade; Blinkenberg, p. 19, 2; Tsountas, p. 309, B (Fig. 19, *d*); (*b*) large and thick, 1 specimen with broad blade and rounded butt, cf. Blinkenberg, p. 18, 1 (Fig. 19, *a*).

3. Long, rounded celts with pointed butts, 9 complete specimens and 13 fragments; the length varies from .05–.11 m. (Fig. 19, *g*), Blinkenberg, p. 18, 1 A; Tsountas, p. 307, A.

4. Long, rounded celts, but with flatter and broader blades than class 3, 2 specimens (Fig. 19 *k*), Blinkenberg p. 18 1 A; Tsountas, p. 307, A.

5. (*a*) Broad, flat celts with flat butts, 6 more or less complete specimens and 3 fragments (Fig. 19, *m*), Blinkenberg, p. 19, 2; Tsountas p. 311, Γ; (*b*) similar, but with sharp, sometimes squared, edges and bevelled blades, 2 specimens, which were found in the second settlement: this type seems peculiar to North Greece (Fig. 19, *b*), Tsountas, p. 312, Δ.

6. Bored celts with flat, rather square butts (Fig. 19, *e, f, h*), 3 complete¹ (one with hole only partly bored) and 9 fragments, one of which is very highly polished and well finished, and is wider round the bore hole. With one exception all these bored celts were found in the eighth settlement, cf. Tsountas p. 319; Blinkenberg p. 22, 5. There were also found fifteen fragments of celts too much broken to classify.

8. Oblong hammers with rounded ends, 1 complete and 5 broken (Fig. 19, *i*), cf. Blinkenberg p. 24, fig. 25.

9. Round pounders, 22 specimens.

10. Grinders: (*a*) oblong, 7 specimens; (*b*) flat and round, 6 specimens.

12. Whetstones, 1 small, and 2 large examples.

13. Polishers, two flat and round, and one oval-shaped with a handle, probably for polishing pottery.

14. Mortar, 1 specimen.

15. Millstones, about 50 specimens; as a rule of vesicular lava which is found at Phthiotic Thebes: they are usually oval with a flat top, and rounded below (saddle querns); with use the middle is worn down more

¹ One of these is from Tomb F; v. p. 214, Fig. 15, *b*.

than the ends ; a few specimens are flat, broad and irregular in shape, and worn on both sides : cf. Tsountas, p. 330, fig. 256.

Here again it will be seen that our observations agree with Tsountas' conclusions. The flat, bevelled celts which he found at Sesklo, and not at Dimini,¹ occur at Zerélia only in the second settlement. Similarly the bored celts, which he found in the higher levels at Sesklo and assigns to the Bronze Age,² we found only in the eighth and latest settlement, which falls at the beginning of the Thessalian Bronze Age. In fact one was found in Tomb F with a bronze knife. As we date the tombs in general to 1100 B.C. and the eighth settlement is earlier than these we may conjecture that the practice of boring celts became common in Thessaly about 1200 B.C., and that an advance in technical skill is parallel to a decline in art as shown by the pottery and terracotta figurines. In every settlement obsidian knives and chips were found in plenty, but flint chips were scarce. The obsidian was probably imported from Melos,³ and shows that trade in it to Thessaly was flourishing from a very early time. But in spite of it no other influence from the Aegæan or Southern Greece seems to have affected Thessaly, and thus the importation and use of obsidian is stamped as a thing apart, and should not be taken into account when considering foreign intercourse.

§ 6.—MISCELLANEOUS FINDS.

In addition to the various classes of antiquities already described we found the following objects : twenty-two ordinary, flat, round terracotta whorls, very well made and polished ; two conical whorls ; one terracotta sling bullet⁴ ; seventeen bone pins⁵ ; one deer horn with a hole bored through near the root for use as an awl ; five small pebbles with holes through them,⁶ either natural or artificial ; a small stone pendant (·02 m. long) with a hole bored through it at one end ; an oyster shell and a shell like a whelk also pierced for suspension ; a cube of crystal partly bored through, and a lentoid steatite gem bored along its diameter, of which one side is plain, while the other has in *intaglio* a kind of cross

¹ Tsountas, p. 313.

² Tsountas, p. 320.

³ *Excavations at Phylakopi*, chap. viii. (Bosanquet) ; for other possible sources of obsidian see *ibid.* p. 229.

⁴ Tsountas, p. 328, Figs. 252, 253.

⁵ Tsountas, Pl. 45, 1-7.

⁶ Cf. Tsountas, Pl. 43, 10.

surrounded by rays. These last two objects were found on the surface and so probably belong to the eighth settlement. Fragments of stags' horns were common, but none of them are in any way worked to show that they had been used as implements like those found by Tsountas.¹

§ 7.—GENERAL CONCLUSIONS.

It will be seen from the foregoing accounts of the excavations and the objects found, that at Zerélia we have eight successive neolithic settlements, the latest of which stands at the beginning of the Thessalian Bronze Age. It is of course possible that the seventh as well as the eighth settlement² belongs to the Early Bronze or Eneolithic Age, for the absence of bronze is no evidence that it was not in use, because when metal is scarce, it is greatly treasured. In any case it puts the Bronze Age in Thessaly very late, and contemporary with the late Mycenaean (Late Minoan III) period, a point which is made obvious by the Mycenaean sherds found in the eighth settlement. Professor Tsountas has no real evidence for the early date he assigns to the Bronze Age in Thessaly.³ His conclusions do not agree with the stratification at Zerélia, and Dr. Sotiriades,⁴ who has excavated early sites at Chaeronea and Elatea, is of opinion that the Bronze Age in North Greece began late rather than early. Before the occurrence in the eighth settlement of the late Minoan ware and the ring-footed vases, which almost certainly came from Orchomenos,⁵ there is no trace of the potter's wheel at Zerélia. We may thus infer that the introduction of the potter's wheel as well as that of bronze was due to a Mycenaean (Late Minoan III) source. Before this period there is no evidence for any close connection between prehistoric Thessaly and southern Greece. The Chaeronea pottery, though it resembles the red-on-white Zerélia ware in technique, differs considerably in the patterns and the shapes of the vases.⁶ On the other hand prehistoric Thessaly as a whole seems to have been

¹ Tsountas, Pls. 46, 47.

² The only bronze found at Zerélia was in the tombs (*v.* p. 215), apart from a fish-hook of doubtful date found in clearing Dr. Vollgraff's trial trench. There is, however, in the Almyró Museum a double axe of bronze from this site, which was found on the surface by a peasant.

³ Tsountas, *op. cit.* pp. 361 ff.; cf. *Annals of Archaeology and Anthropology*, 1908, Part IV.

⁴ *Μελέτη*, 1908, pp. 615, 616.

⁵ See the unpublished pottery in the Chaeronea Museum.

⁶ Closer inspection of the two kinds of ware shows that the resemblance between them is over-stated by us in *Annals of Archaeology and Anthropology*, 1908, Part IV.

inhabited by a number of allied tribes, for we find that one kind of ware predominates in one area, and another in another. For instance the typical Dimini pottery (Tsountas, Pls. 9, 20-29) is common in all the prehistoric mounds between Tyrnavo, Larissa, and Volo, and rare in Phthiotis and round Pharsala, whereas the red-on-white Zerélia ware, which is rare in Pelasgiotis, is very common in the latter region. So it seems that the various tribes were in close communication with one another, for at the sites mentioned yet other wares occur in small quantities, the source of which is not yet known, but probably lay in some other part of Thessaly. Thus it is all important that excavations should be undertaken in the prehistoric sites of central and western Thessaly in order to ascertain the homes of these various potteries. Further, our coming excavations in the Spercheus valley at the sites which we have discovered by Lianokladi should do much to throw light on the early connections between Thessaly and Phocis. It should be noted that all the Mycenaean pottery yet found in Thessaly belongs to the latest period (Late Minoan III),¹ and that the entire absence of any early kind of Minoan or Cycladic wares shows that Mycenaean pottery did not develop locally in Thessaly as it did in Southern Greece and the Aegaeon. In fact before the appearance of the late Mycenaean ware the Neolithic culture was already in a state of decay, as shown by the degeneration of the pottery and terracotta statuettes.

Thus the archaeological evidence clearly points to the fact that in prehistoric times the cultures of North and South Greece were radically different. This probably indicates an ethnological difference as well. Further the archaeological connection already pointed out between Zerélia and Orchomenos bears out the tradition of a Minyan settlement at Iolcos and in Southern Thessaly. These observations and the fact that a widely spread Neolithic culture lasted in Thessaly till very late times are exceedingly interesting from a historical stand-point, and urgently call for fresh excavations to throw light on these important problems.

A. J. B. WACE.

J. P. DROOP.

M. S. THOMPSON.

¹ *E.g.* vases from Pagasae (*Ath. Mitt.* 1889, Pls. X., XI.), Dimini (*Ath. Mitt.* 1886, pp. 435 ff.) and Kapakli ('Εφ. 'Αρχ. 1906, pp. 211 ff.); there are also three late vases from Gonnos in the Almyró Museum, and we have found Late Minoan III sherds with Neolithic vase fragments on the surface of prehistoric mounds near Larissa and Pharsala.

APPENDIX.

NOTES ON THE TOPOGRAPHY OF PHTHIOTIS BY DR. WILHELM VOLLGRAFF,
PROFESSOR AT THE UNIVERSITY OF GRONINGEN.

In the spring of 1906 I was able to study on the spot several questions concerning the topography of Phthiotis. In the present paper I will confine myself to those points on which I believe my notes complete, or correct, those of Dr. Staehlin.¹

At Phthiotic Thebes there is not one acropolis only, but two are clearly distinguishable, of which the circuits almost touch. That to the east is the only one that has hitherto been noticed. It is not possible to establish its date, but I believe that all its walls belong to the historical period. The irregular appearance of the foundations of the walls on the southern and eastern sides is no proof that they are of great antiquity.² The second acropolis is immediately to the west of the first, and was enclosed by a wall built of small stones roughly cut. Within it the foundations of several buildings appear on the surface, which are, I think, very probably the remains of an earlier city.

The exact position of the temple of Demeter at Pyrasos³ is unknown. Probably the site was occupied in later times by one of the Byzantine churches, the ruins of which are frequent near the farm of Karabas. From these churches come the small unfluted columns mentioned by Dodwell. The carved marble slab, which is now built in above the door of the farm-house, and the similar piece published by Dodwell also seem to me to belong to the Middle Ages.

Dr. Staehlin places the city of Itonos⁴ and the temple of Athena Itonia on a hill called Zerélia, about an hour south-west of Almyró. The top of this hill only measures seventy-five by fifty metres. This made it easy to see if a Greek temple had ever existed there; consequently I dug a trench lengthwise across the hill. No walls were discovered, but it was found that the hill had been inhabited, first in the pre-historic, and later in the Hellenistic period.

The small village of Karatzadagli, which lies half an hour south-west of Zerélia, is commanded on the west by a small Greek acropolis, the walls of which are in places well preserved. This has hitherto, not been properly described.⁵ I made several trial excavations which proved that the site had been inhabited in the Hellenistic age. The walls of several ancient buildings were also found almost on the surface, but no remains of any large temple. It seems to me that a town extended in antiquity over the slopes of the hill to the north of the acropolis. Here I cleared part of the foundations of a large building facing east (walls 7.80 m. thick, breadth of building 9.40 m.). No finds, except a small leaden vase, were made during the excavation to determine the nature of this building.⁶ Perhaps it was one of the temples of the town, to which the acropolis of Karatzadagli

¹ *Ath. Mitt.* 1906, pp. 1 ff.

² Leake (*Northern Greece*, iv. p. 361) rightly remarks 'A little below the citadel, where the ground is very rocky, some large irregular masses were fitted to the rock as a basis to the superstructure.'

³ *Ath. Mitt.* 1906, pp. 10 ff.

⁴ *Ath. Mitt.* 1906, pp. 15 ff.

⁵ Staehlin, *op. cit.* p. 33.

⁶ This building was completely excavated in 1908 by Dr. Arvanitopoulos.

belonged. Did Itonos stand here? It is impossible to solve this problem yet, since perhaps there may be other sites in the same neighbourhood to claim the honour.¹

Two hours south-east of Almyró, near Paralia, are the insignificant ruins of a large building of the classical period, within a rectangular temenos. It seems to me that these can only be the remains of a temple belonging to the neighbouring city of Halos. Mr. Giannopoulos' view that this is the sanctuary of Zeus Laphystios may perhaps be correct, though no proof can at present be adduced. In the small trial excavation which I made here, a few fragments of black-glazed pottery were found, but nothing of the prehistoric age.

¹ Giannopoulos, *B.C.H.* 1892, pp. 473 ff.