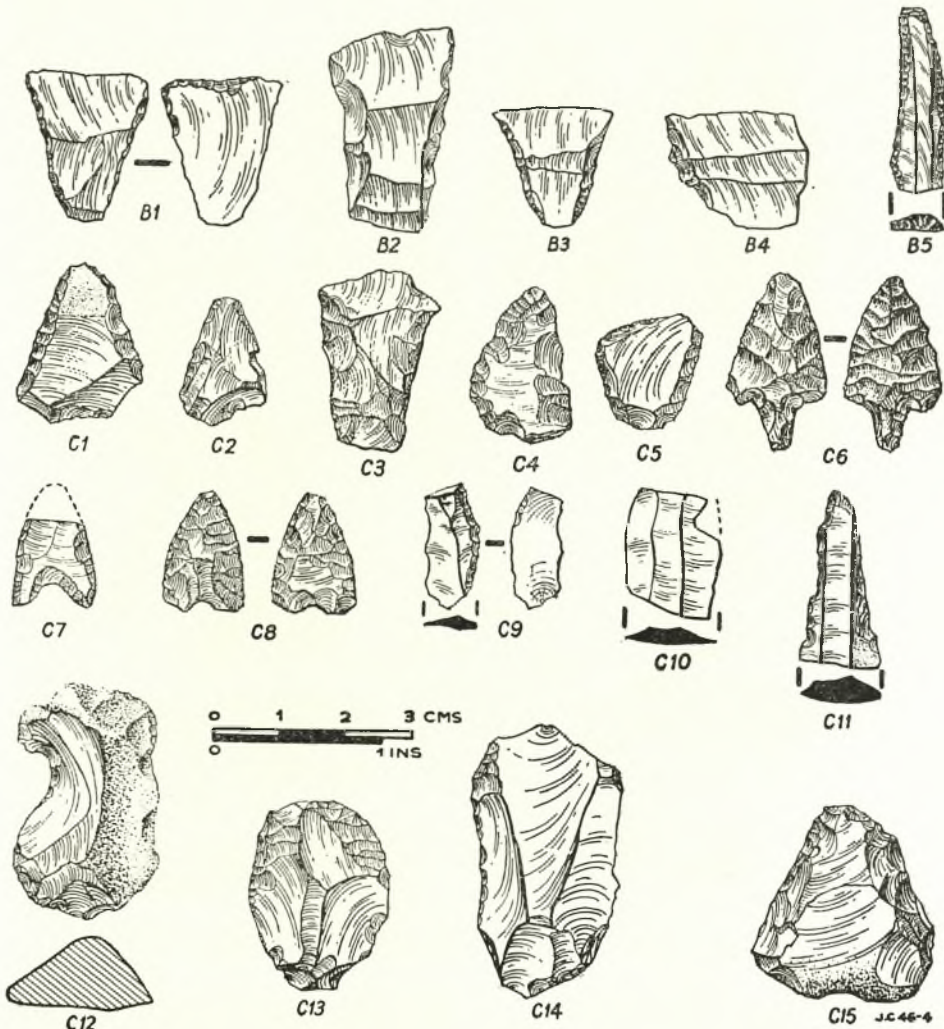


SOME RECENT OLD STONE AGE DISCOVERIES IN EPIRUS

One hundred years ago in 1865 Henry Christy died. With Edward Lartet, together they had established by excavation in the Dordogne

Art and in 1880 the paintings of Altamira in Spain had been discovered. In Italy the finds from the cave of Romanelli were published and a series of discoveries in the third decade of the 20th century by G.A. and A.C. Blanc established the brilliant Italian Palaeolithic succession.



Plan 1. Stone tools from the Kokkitos Valley

the existence of Upper Palaeolithic Man in France. They had excavated in the famous caves of Laugerie Haute, La Madeleine and Le Moustier, and the discoveries they made there are still the basis upon which European Palaeolithic Archaeology rests. By 1877 de Mortillet had accepted the existence of Palaeolithic

In 1924 Jardé wrote that not a single Palaeolithic tool had been discovered in Greece. In 1947 Sauter wrote that the position had hardly changed. Certainly the Cave of Seidi near to Levadia had been discovered in 1941. It contained only a small industry of uncertain date, but nevertheless Palaeolithic or Mesolithic in

character. In addition a single artefact, possibly of the Old Stone Age, had been found near Saloniki. In 1958 a German expedition to Thessaly concentrated on the Penios River and found some hundreds of tools washed out and in part dug out of the river banks. They were possibly

of course, to cover such an area completely but it was hoped that by sampling, that is by examining sections of territory at more or less regular intervals, an estimate could be made of the general position. In fact, after a month's search the opinion was formed that there was



Plan 2. Middle Palaeolithic tools from Aghios Georgios

Middle Palaeolithic or Upper Palaeolithic in date and associated with bones in different stages of fossilization. In 1960 a Neandertal skull was discovered in Khalkidiki, but up to 1962 that was all that was known of human occupation of Greece prior to 6000 B.C. and therefore probably of more than 99% in time of the human occupation of Greece.

In 1962 a team from Cambridge University began to investigate the possibilities for Palaeolithic archaeology in Macedonia. It is impossible,

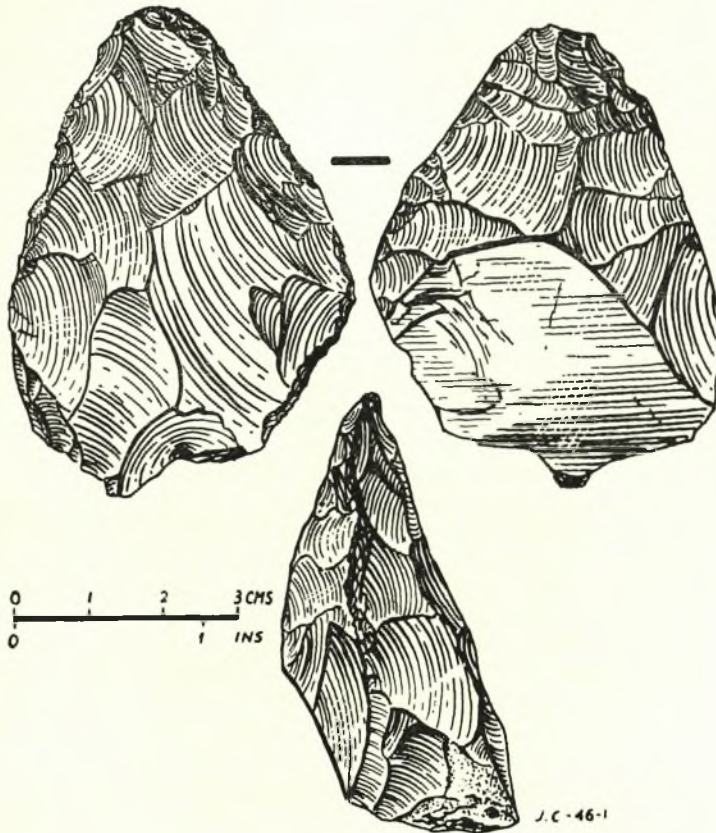
little evidence of Palaeolithic occupation in Macedonia and that available raw material suitable for the manufacture of Stone Age tools was itself rare. In the light of experience subsequently gained in Epirus, this opinion may have to be modified, but for reasons given elsewhere Epirus is likely to hold more information on the Old Stone Age than Macedonia.

However this survey of Macedonia did result in finding the earliest artefact known to Greece, an Acheulean hand-axe, possibly circa

100.000 years old. This hand-axe of green trachyte was in perfect condition and was found on the surface at Palaeokastron near to Siatista. Archaeologically it is of some importance. It demonstrates an Acheulean occupation of Greece and opens up the possibility of extensive research in connection with the river gravels and

Nevertheless there are a number of high level gravels around Siatista which may repay investigation.

In Epirus, compared with Macedonia, raw material which fractures in a predictable way such as chert, and which was therefore often chosen by Palaeolithic man for tool making,



Plan 3. A broken hand-axe from Aghios Georgios

river terraces of Greece. Hitherto there had been a Balkan gap. One wave of hand-axe makers had passed, according to theory, from Africa into Europe, crossing the Straits of Gibraltar and dying out in Italy and west of the Rhine and a further separate wave had passed from Africa to Palestine. It seems more likely now that there was a ring of Acheulean hand-axe makers round the Mediterranean. It was, however, not possible to conduct a search of the area and no further implements were found.

is abundant. Here workshop floors are more common. There are a number of Neolithic and Bronze Age chipping floors on the hilltops around the lake of Ioannina. There are also a number in the Valley of the Kokkitos (Plan 1) and also against the Albanian border around Goumani. So far, however, the majority of Palaeolithic finds have been in the neighbourhood of Aghios Georgios between Ioannina and Arta. At Kokkinopoulo (Pl. 427) west of the river Louros

and between Aghios Georgios and Pantanassa a prolific Mousterian industry was found in a red deposit which overlay a breccia and which was overlain by a scree. Thousands of Middle Palaeolithic artefacts were observed on the surface being eroded out of the red earth. Eventually a chipping floor was found in situ and excavated under the aegis of Dr. S.I. Dakaris. The industry has the typical Mousterian D-scrapers (Plan 2, 7), points (Plan 2, 3-5) and sidescrapers (Plan 2, 6). There is strong Levallois element of faceted platforms and tortoise cores and there are bifacially worked points which suggest possible relationship with the Eastern Mousterian (Plan 2, 1-2). However the typical plano-convex technique of the Eastern Mousterian seems to be lacking and the high Levallois content would appear to suggest a relationship with the Levallois Mousterian of the Eastern Mediterranean. The finds also include a small broken hand-axe (Plan 3), Mousterian in type. Certainly the finds at Asprochaliko, referred to later, will do much to determine the true affinities of this culture.

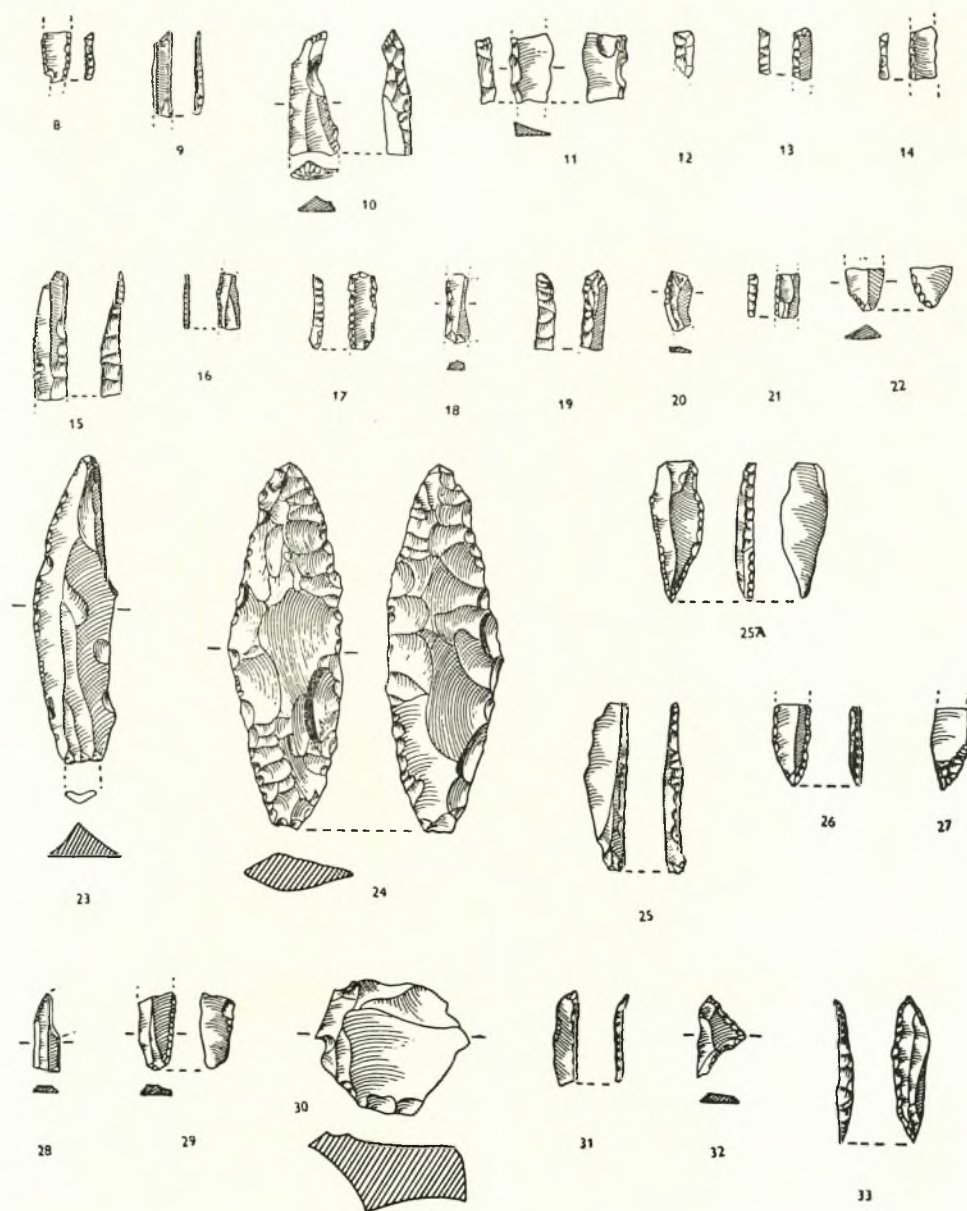
The large number of tools found in this area does indicate a considerable occupation during Middle Palaeolithic times and indeed Middle Palaeolithic tools can also be found on the hillsides, east of the Louros River, but in no great concentration.

The search for similar industries was subsequently extended over a wider area. A single core was found on the hillside between Thessprotikon and Risovouni. This was also associated with a residual patch of red earth similar to that of Kokkinopoulo. Similar patches of this red earth and associated with Middle Palaeolithic implements were found on the cliffs north north-east of Stefani, and on the heights around Kokkinopoulo and at Voulista Panaya. At Stefani redeposited red earth with many Middle Palaeolithic implements is to be found immediately on the roadside. Presumably they have been washed there from the hillsides some 100-200m. higher up, where there are also similar tools and again a red deposit. At Morfi on the cross-road to Margariti and Parga, there is on one side of a watershed small residual patches of the same red earth with Middle Palaeolithic implements (Plan 4, 24) while on the other side there is a similar but larger area. Again at Karvounari near Paramythias there is a large but

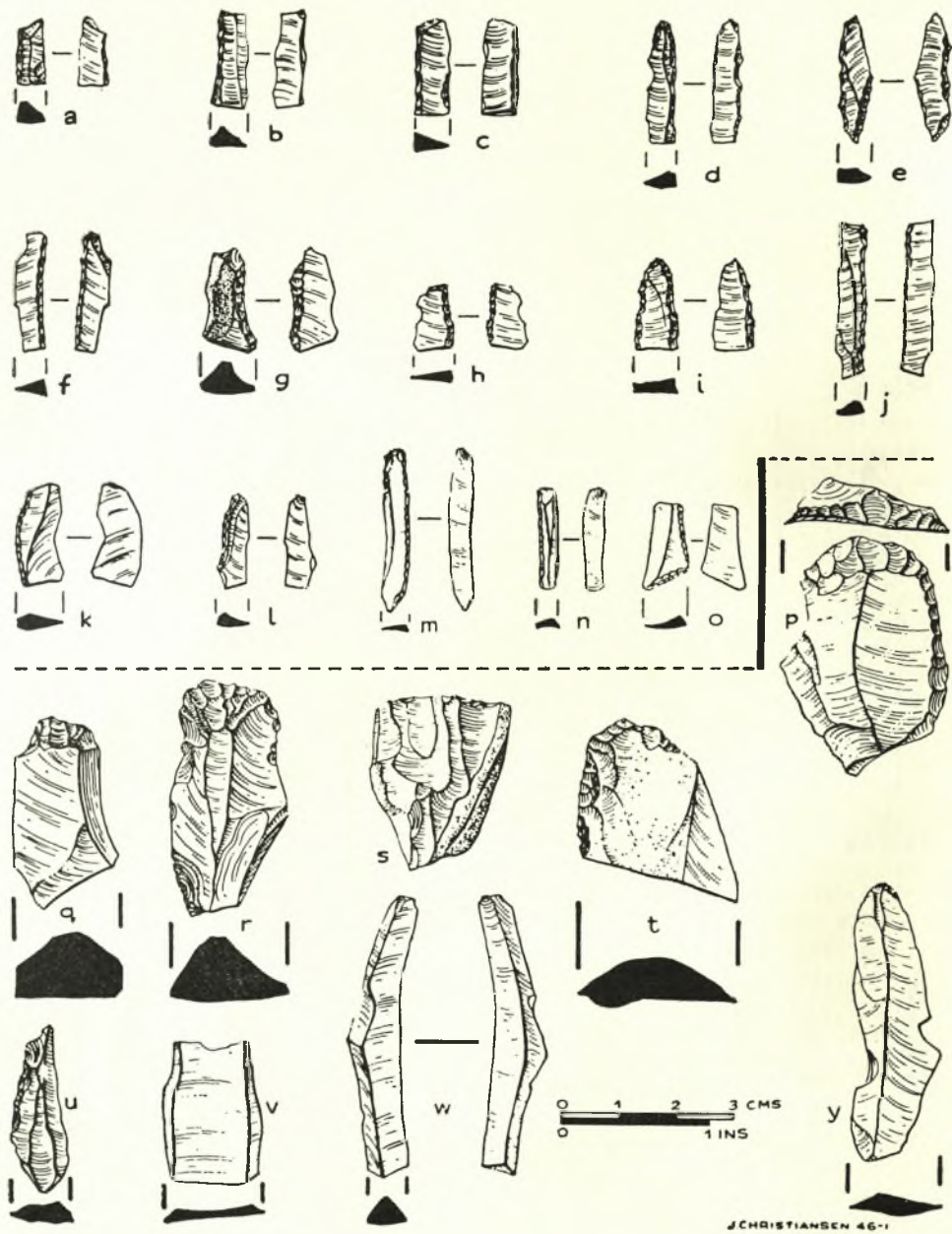
circumscribed area of red earth with many Middle Palaeolithic implements, and there are small patches often no larger than two or three square metres in extent between Karvounari and Morfi. The red earth is often high up above the valley floors and is probably associated with an ancient land surface, which has been washed off the greater part of the hillsides.

The general conclusion therefore is that there was a considerable occupation of Epirus in Middle Palaeolithic times during the deposition of a red, probably wind-blown, clay.

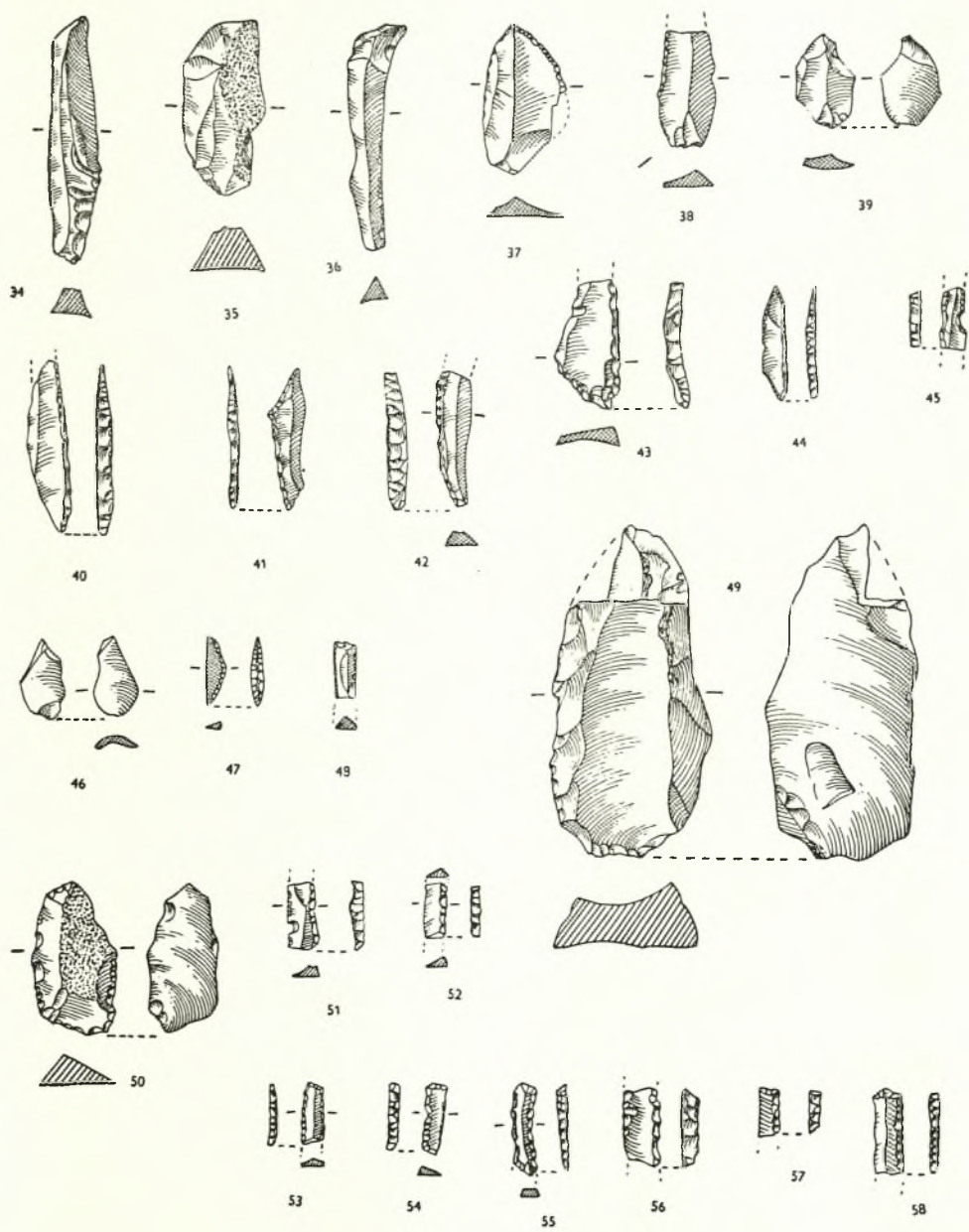
At Kokkinopoulo the breccia which is covered by the red clay is thought to be possibly evidence for an early cold phase, and the screes which lie on the red clay evidence for the last cold phase of the Last Glaciation. The red clay in fact shows three different phases of deposition with erosional phases between each. The deposits are at the bottom red, above yellowish red and at the top reddish brown. The significance of these colour changes is not yet understood, nor is the origin of the clay itself. It is thought that it may have been blown into its present position from a wide foreshore when the sea was at a lower level, during a glaciation, than it is today. The Mousterian industry lies at the base of the yellow red, but there is also a backed blade Upper Palaeolithic type (Plan 5) industry at the base of the reddish brown deposit. If the tentative geological hypothesis is correct, that the overlying scree is the last cold phase of the Last Glaciation, then the Upper Palaeolithic industry could be earlier than the beginning of the last cold phase circa 30,000 B.C. On the other hand the upper scree could have been formed at any time during the cold phase which lasted until circa 10,000 B.C. The industry has some similarities to the Russian industries of the Dniepr and Dniestr. It contains small backed blades and thick scraper-like tools (Plans 5, 4, 8-22, 6, 48-58). Similar artefacts certainly began earlier than 21,000 B.C. in Russia, and possibly much earlier. At Molodova V the upper humus is radiocarbon dated to 21,700 B.C. and the backed blades and thick scrapers begin in a lower humus layer Xa. Further study of this material and more accurate dating may make it possible to indicate the direction of flow of the backed blade industries across Europe and Russia, and probably give valuable information relating to their origins of the emergence of Homo Sapiens in Europe. On the other



Plan 4. Middle and Upper Palaeolithic artefacts from Aghios Georgios and Morfi (no. 24)



Plan 5. Upper Palaeolithic artefacts from Aghios Georgios

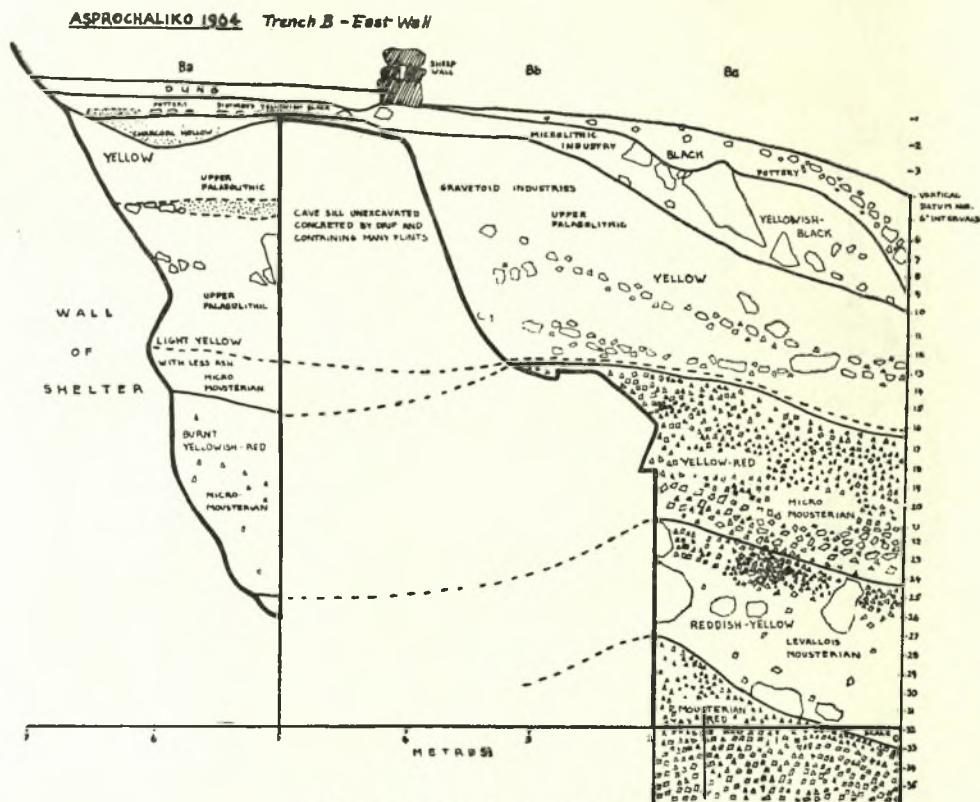


Plan 6. Upper Palaeolithic tools from Aghios Georgios

hand if the upper scree was formed late in the last Glaciation this industry may be a much later manifestation of the backed blade industries of Eastern Europe and similar to the upper layers at Asprochaliko. Typologically the latter affinity may appear to be more convincing at present and in this case it would indicate that

probably an occupation associated with the upper levels of a red clay deposit. This is again an area where a considerable human occupation took place in Palaeolithic times and where a search should reveal caves or rock-shelters.

Interesting and important as these sites are however, they are one-industry sites and they



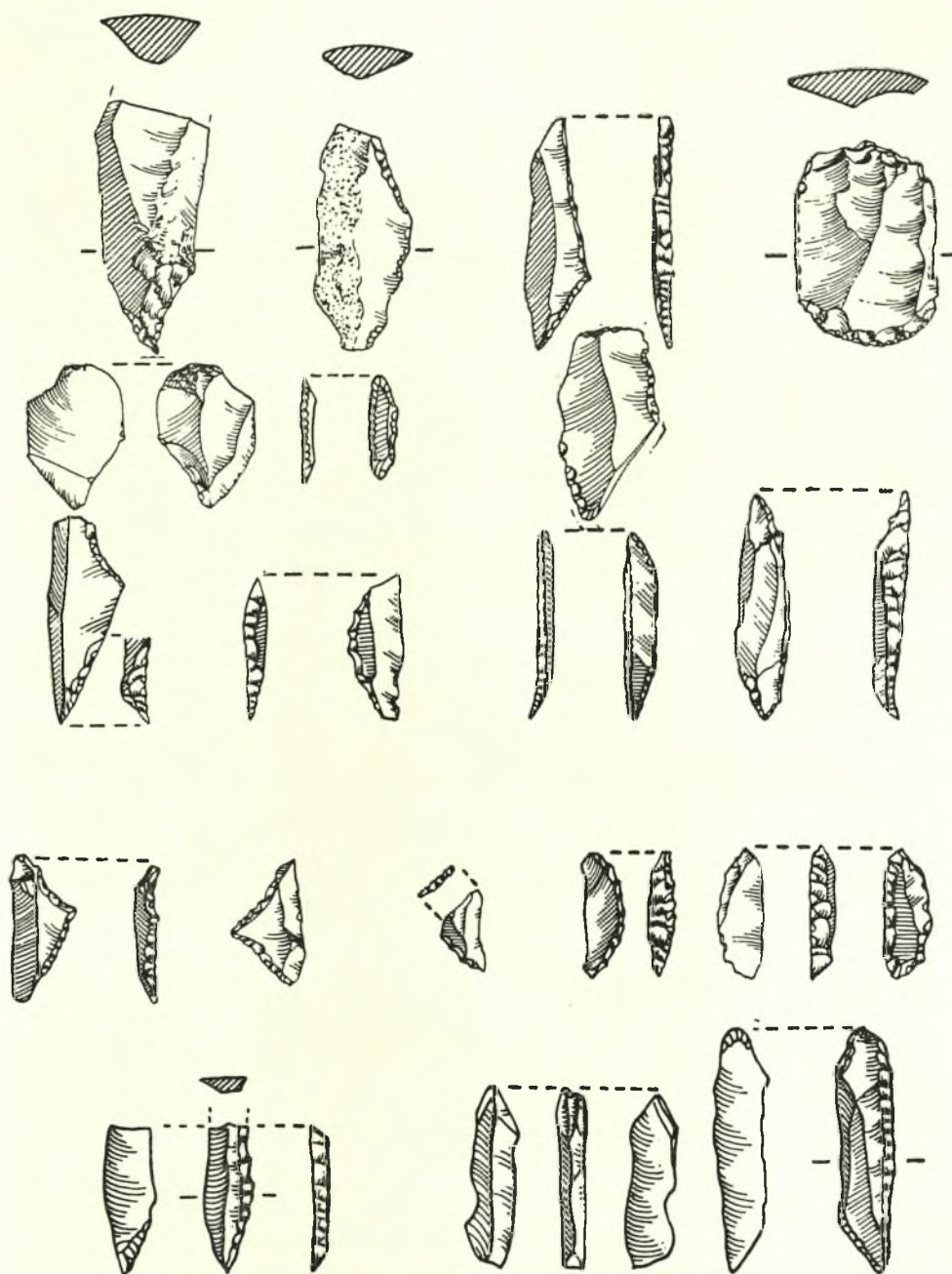
Plan 7. Section at Asprochaliko

a period of scree formation existed in Greece late in the Last Glaciation.

Another and perhaps later Upper Palaeolithic or late Glacial industry is at *Katsika* on Lake Ioannina. A drainage ditch has been cut through an implement-bearing layer and artefacts are lying on the surface. There are long backed blades and the occupation here was prior to a lake transgression as yet undated. This site merits further investigation, particularly as it should be easily datable and may also contain organic cultural remains. There is also in all probability an upper Palaeolithic site at *Karvounari* near to *Paramythias*, where there is

are scattered over a wide area and it is difficult to relate one to another. Naturally sites of the greatest archaeological importance are those where a series of industries lie in succession one above the other in the same place. In 1964, under the aegis of Dr. S.I. Dakaris, a small trial excavation was carried out at a rock shelter known as *Asprochaliko* near to *Aghios Georgios* and between *Ioannina* and *Arta*. It is the oldest known habitation site in Greece.

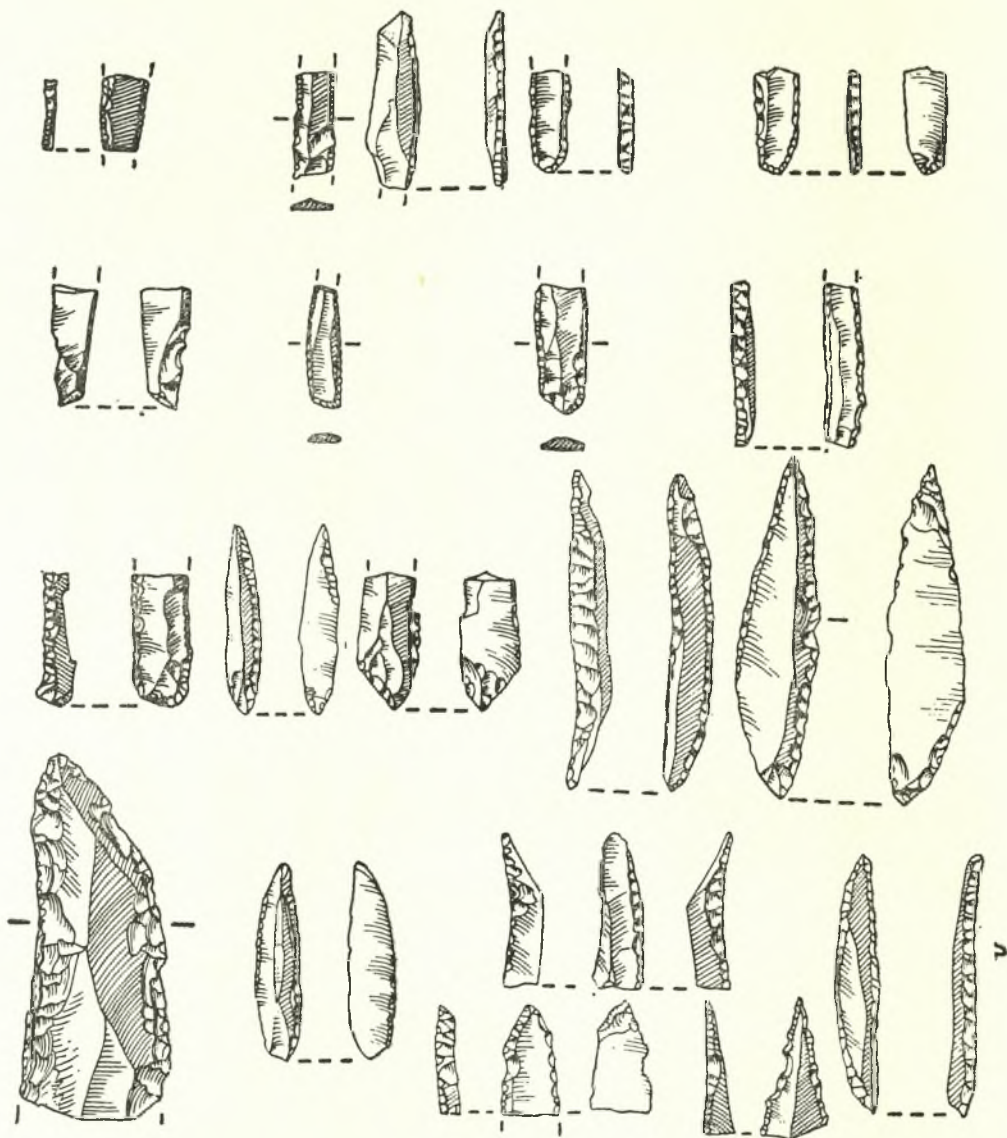
Asprochaliko (Pl. 428) is a large rock shelter some 30 metres in length and 10 metres in depth which is used occasionally today as a goat pen. It lies some 50 feet above the River



Plan 8. Upper Palaeolithic tools from Asprochaliko

Louros. The shelter faces south and is protected from northerly winds. It is characteristic of the type of many famous rock shelters in western Europe. It is situated in a narrow ravine which

deposits a trench only 1½ metres wide was excavated. Nevertheless it yielded the impressive number of 35.000 artefacts. The industries involved have not yet been studied but certain



Plan 9. Upper Palaeolithic tools from Asprochaliko

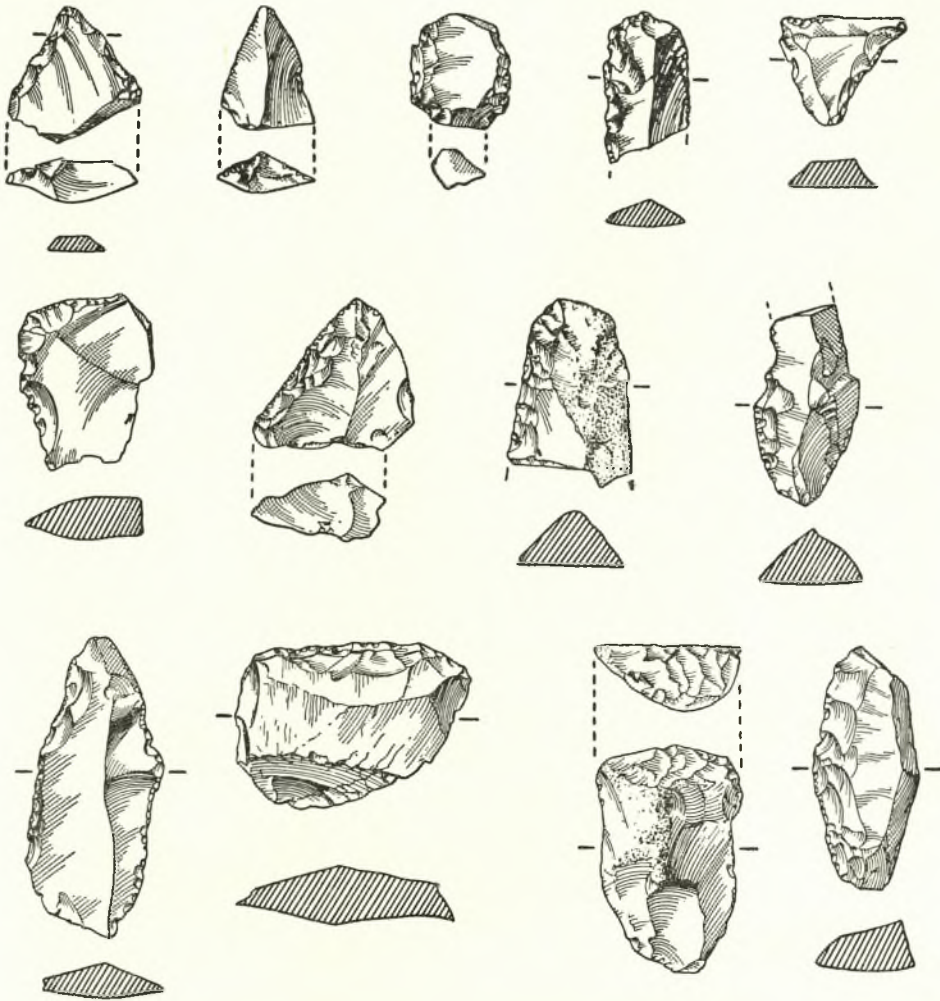
would have been a good gametrapp (Pl. 429). It is close to the river which would have supplied water to both the inhabitants of the cave and the wild game.

In order to disturb as little as possible of the

obvious conclusions can already be drawn. Table I shows the number and type of artefact recorded in on section TRB c of the trench, for each 12 centimetres in depth. It would appear that there was in all probability continuous occu-

pation from Middle Palaeolithic to Mesolithic times. It may be noted that owing to the beginning of autumn rains excavation was suspended before bed rock was reached. There is therefore a greater depth of deposit yet to be

tains backed blades, scalene triangles, crescent, awls, shouldered points, burins and scrapers (Plans 4, 25-33, 634-38). There are numerous micro-burins, while the industry may be of a similar type to that of Seidi, which has



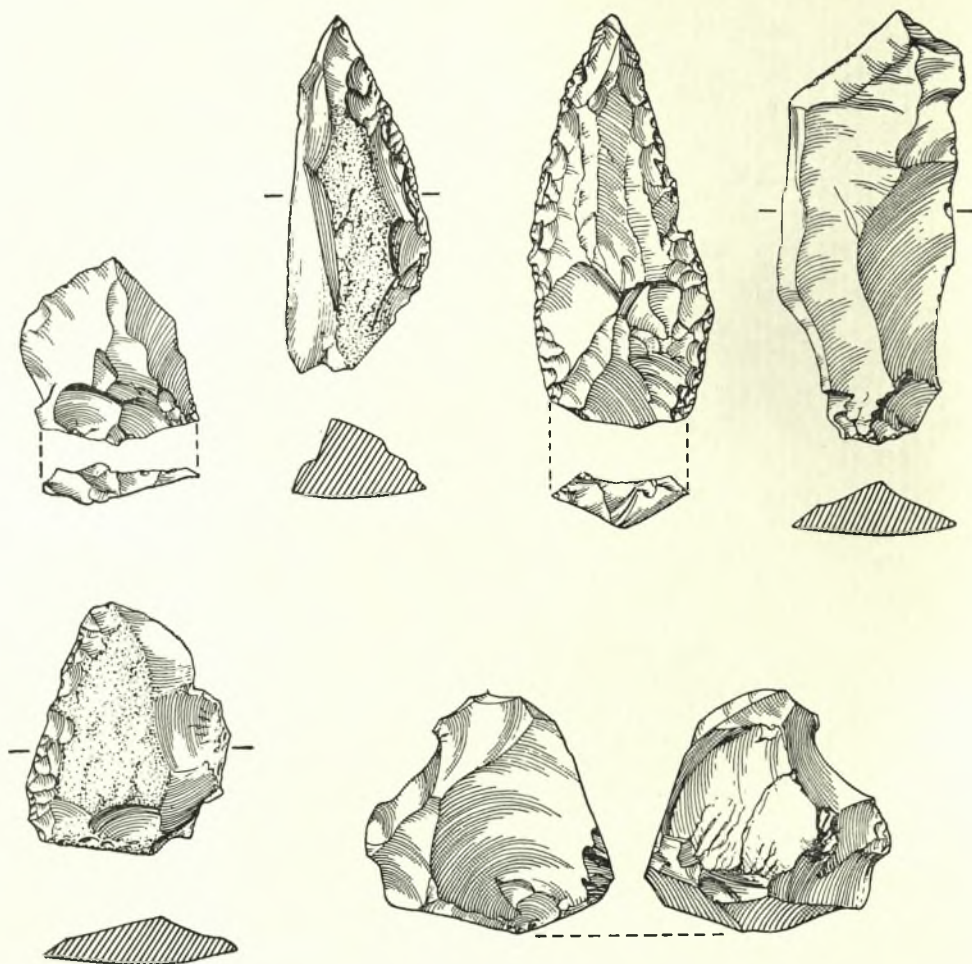
Plan 10. Micro-Mousterian tools from Asprochalico

explored. Below pottery levels which contain some ancient hearths, there are at least four super-imposed Palaeolithic levels (Plan 7). The uppermost industry is in a fine yellowish deposit with some stones. It is interesting to note that a similar deposit has been noted elsewhere in countries bordering the Mediterranean, and this may be a helpful factor in correlating data from different sites. The tool assemblage con-

contains backed blades, burins and shouldered points, there are nevertheless a number of different types of finished artefact which are not represented at Seidi (Plan 8). A more convincing comparison is with the upper layers at Romaneli near to Lecce in Italy across the Straits of Otranto and dated by radio-carbon to 12,000 years ago in a cold phase towards the end of the Last Glaciation. Some surface finds on the

Bulgarian border may also be of a similar type. But the possibility of Mediterranean culture of which the Capsian industry round Gafsa in Tunisia was an offshoot, must be considered as a possibility. P l a n 9 shows the implements

Dauun in Tripolitania, and at Tit Melil in Tunisia. As yet the meaning, date, significance and relationship, if any, of these sites is by no means clear. The industry contains small Mousterian type points, some small scrapers with step re-



Plan 11. Middle Palaeolithic tools from Asprochaliko

from the lower Upper Palaeolithic deposits. The micro burins are no longer present, nor are geometric forms.

Below there is an unexpected industry, a micro-Mousterian occupation with many artefacts. Small Mousterian industries are rare in the archaeological record, but they do occur in the Pontian in Italy, possibly at Ke Aram in Iran at Jabrud in the Near East, at Gasr ed

touch but otherwise is a coarse assemblage without the thin blades which characterise the upper industries (P l a n 10). This was only slightly patinated, compared with the heavy patination of the artefacts below. This find at Asprochaliko should lead to considerable new information covering this aspect of the Stone Age. Below the micro-Mousterian is a Levallois-Mousterian similar to the industry found at

TABLE I

TRB c										Mousterian						
Level	Backet blades, etc.	Tringles, crescents	Points	Burins	Burin spalls	Scrapers	Misc. finished tools	Micro burins	Cores	Flake blades, etc.	Points Mousterian	Scrapers	Disc cores	Tort cores	Other cores	Total
4	3					1		1		68						73
5	13			1	1	2	1		4	558						580
6	14	1			1	3	2		3	596						617
7	28					2	4	1	4	409						447
8	36	2	1		1	5	3	1	5	706						760
9	18	3	3			4	4	4	6	701						743
10	28	1	1			3	3	1	5	1096						1128
11	16	1	1	1		3	2	1	5	749						779
12	8		2		3	3	1		4	267						288
13	15					1	1		4	422						443
14	5			1	1	3	3		2	133						148
15						4			4	71						79
16							1		1	37						38
17			1				1		1	41						44
18										42		1			1	45
19										52		1		1	2	56
20										50		1				51
21										63		1				64
22							1			14		2				17
23							2			20		3				25
24							1			9	2	1				13
25									1	159	2	3			1	166
26									1	143	2	1			1	148
27									1	16	2					19
28							3			594	3	3	1	5	1	610
29							3			525	1	4		2	7	542
Below 29							3			98		2			10	113
Below 29 (65c. etc.							2			15						17

Kokkinopoulo. It contains numerous points, sidescrapers, D-scrapers, tortoise cores and Levallois flakes, all heavily patinated as with those at Kokkinopoulo. So far, however, the bifacial points have not been noted in association with these artefacts from the shelter (Plan 11). It should be noted that while the reddish, yellow colour of the lower layer coincides with the Levallois-Mousterian industry, the yellow-red deposits cease before the termination of the micro-Mousterian industry. The cultural layers

are not coincident with the changes in soil colouration, a fact which has been missed in many previous cave excavations. There is in the literary record a tacit assumption that soil colouration changes with industrial changes, whereas on consideration it is obvious that changes in the colour of deposits are often related to climatic and not industrial differences.

Throughout the layers bones are well preserved, although often covered with stalagmitic concretions. In the upper layers there are many

remains of deer and in the lower layers there is evidence of rhinoceros, but again the material has not yet been studied.

On any account a rock shelter of this kind with such a succession of industries, covering a long occupation ranks as one of the most important Palaeolithic sites in Greece. It is estimated too that it may well contain over a million artefacts, so that full statistical studies can be made of all aspects of the industries. Bone is well preserved and there will be a very good record of any faunal changes which may have taken place over this very long period. The climatic changes in Greece during the Last Glaciation should be revealed. By the radio-carbon

method an accurate framework of dates for the Palaeolithic will be established. There is, of course, the possibility of human remains somewhere in the cave and it is worth noting that some of the cultures represented here are those which have produced the important cave art of France and Italy.

It is evident therefore that the future for Palaeolithic studies in Epirus is most promising. It is also fortunate that the recent discoveries have come at a time when the application of scientific techniques to the excavation of cave sites has become a possibility, and indeed is recognised as a necessity.

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Epirus. Kokkinopoulo: The red clay at Aghios Georgios

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Epirus. Preveza: Shelter of Asprochaliko

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Epirus: Asprochaliko and the Louros gorge

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