Number Three *March 1927*

BULLETIN

OF THE

American School of Prehistoric Research

IN AFFILIATION WITH THE

ARCHAEOLOGICAL INSTITUTE OF AMERICA

Founded 1921; Incorporated under the laws of the District of Columbia, 1926

REPORT BY THE DIRECTOR

ON THE

WORK OF THE SIXTH SEASON

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INTRODUCTION

To a child the sun, moon, and stars appear to be only a short distance away—almost within its grasp. The child's viewpoint is reflected in the Bible story of how Joshua caused the sun to stand still. The work of Copernicus, Galileo, Kepler and Newton has given us a wholly different conception as to the distance even to the nearest stars and the magnitude of the sun in relation to the earth or the puny strength of man.

Just as the astronomers have by degrees taught us that the earth is one of the least significant of the myriads of spheres moving through limitless space, so have the geologist and the prehistorian given us a new conception of the length of time the earth has been inhabited—first by the lowly and simple forms of life and later by mammals including man. The

* For previous reports, see:

1 George Grant MacCurdy. American Anthropologist, N. S., XXIV, No. 1, 61-71, 1922.

2 Charles Peabody. Bulletin, Archaeological Institute of America, XIV, 115-118, December, 1923.

3 Ales Hrdlicka. Report has not been published beyond a note in the Explorations volume of the Smithsonian Institution for 1923.

4 George Grant MacCurdy. Art and Archaeology, XIX, No. 3, 121-130, March, 1925.

5 George Grant MacCurdy. Art and Archaeology, XXI, No. 2, 75-81, Feb., 1926.

five days, during which all creation save man is said to have come into existence, must now be extended to cover over 1,000,000,000 years of our calendar; and the time that has elapsed since man was created, instead of being 5,930 years as the Usher chronology would have us believe, comes nearer to being 500,000 years.

The Bible story of how man came to be is an Old-World product. Nature's record of the same event is also essentially an Old-World product; so likewise are the earliest records of man's struggle for mastery over his environment. In order that Americans might the more readily obtain a first-hand knowledge of these records, the American School of Prehistoric Research was founded in 1921.

After six years of existence, this School has proved itself to be not only the most ready means of training students in prehistory but also the quickest and surest means of approach to the latest discoveries. One of its functions therefore is to act as a clearing house of prehistoric information. It enables American students to ascertain who their Old-World colleagues are and what they are doing; to collaborate with them as well as to do independent research. Moreover, the same ground is not covered each year, so that a student may return a second or even a third year to fields and experiences new to him. During the past season a considerable amount of time was given to Czechoslovakia and Austria, which may give place in 1927 to the Pyrenees and Spain.

SCHOOL ACTIVITIES

The countries in which work was done by the School in 1926 are: England, Holland, Germany, Czechoslovakia, Austria, Switzerland, and France. After visits to the museums in London, Cambridge and Ipswich, the students took part in field work which was of such a nature as to familiarize them with the occurrence of the oldest known Paleolithic implements, for example at Bramford pit and especially at Warren Hill (Suffolk). The latter site has yielded thousands of specimens of the so-called Pre-Chellean, Chellean, and Acheulian cultures (Fig. 1). Nearby are the prehistoric pits known as Grime's Graves, where the mining of flint was carried on *in extenso* during the Neolithic Period. If Suffolk can boast of a flint industry dating back to Pre-Chellean times, and of flint mining on a large scale in Neolithic times, she also has the distinction of keeping flint industry alive down to the present day. After Warren Hill and Grime's Graves, one has only to complete his conception of the part flint has played in human history by a visit to Fred Snare, the flint knapper of Brandon.

Holland offers a big prehistoric attraction in the remains of *Pithecanthropus erectus,* which are preserved in the Teyler Museum at Haarlem. Dr. Eugene Dubois, their discoverer, returned to the city from his vacation in order to show us these rare specimens as well as those from Wadjak, Java. In a three-hour conference, he gave us the results of his more than thirty years of study of the Java ape-man and the Proto-Australian fossil man of Wadjak. It was particularly illuminating to

FIGURE 1. The sand and gravel pit at Warren Hill, Suffolk, where thousands of Lower Paleolithic implements have been found; these represent four stages of culture, the oldest or Pre-Chellean, Chellean, Lower Acheulian, and Upper Acheulian. Above the latter horizon there is a sterile deposit of Chalky Boulder Clay.

have the discoverer himself, with the originals in hand, summarize the results derived from his long and painstaking labor.

In Germany we made special use of the museums in Berlin, Halle, Weimar, Jena and Dresden. From Weimar we visited the travertine quarries at Ehringsdorf, which have furnished valuable data on man's physical and cultural status during the last interglacial epoch. We also saw the human cranium found in the Fischer Quarry (Fig. 2) in 1925. As might be expected it is not unlike the Neandertal crania from other parts of the Old World although it dates from an earlier epoch. The cranium, which is low with sloping sides and projecting occiput, is that

of an adult, probably male. The brow ridges are large, the left one being practically complete. The mastoid processes are small. Unfortunately, the right temporal, face bones, base and lower jaw are missing. The cranium was found in the Fischer quarry at a depth of 18 meters and is soon to be published by Professor Weidenreich. It will be recalled that two human lower jaws were previously found in the adjoining Kämpfe quarry and in the lower travertine but at a depth of 12 meters. Drs. A.

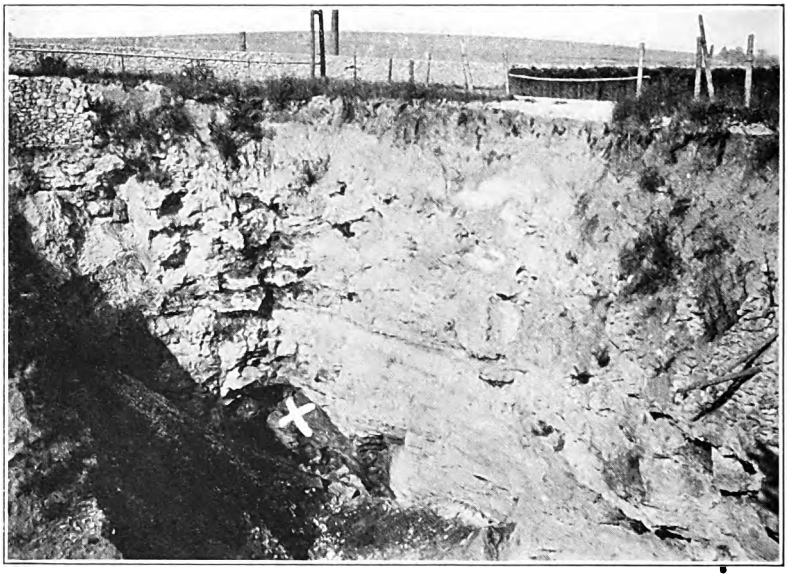


FIGURE 2. Fischer's Quarry at Ehringsdorf near Weimar. The section shows upper Travertine with cold fauna at the top and lower Travertine with warm (interglacial) fauna at the bottom. A human cranium was found in the Lower Travertine in 1925 at a depth of 18 meters (59 feet) from the surface.

Götze and Hess von Wichdorff have just explored two Paleolithic stations: the Aurignacian loess station of Schneidemühle at Schluttweh, Saxony; and the cave of Döbritz at Pösneck near Saalfeld, Thüringen.

Czechoslovakia was our next objective. The National Museum in Prague is especially rich in relics of the Neolithic Period and of the ages of metals. Dr. Schranil was most helpful in giving us access to the cases and elucidating the various types and their relations each to the other.

For a correct appreciation of the Paleolithic Period in Central Europe, one must go to Moravia. Here with Brno as a center and with Dr. K. Absolon of the Moravske Zemske Museum to guide us, we spent more

than a week first in the Museum and then in the field digging at the Paleolithic loess station of Dolni Vistonice (Unter Wisternitz). We also dug in the Paleolithic cave of Pekarna at Kostelik. A section had already been prepared at each of these sites, thanks to the foresight of Dr. Absolon. He it was who found at Unter Wisternitz in 1925 an ivory figurine of the so-called Venus type now in the Museum at Brno. We were not quite so lucky, but we did find many artifacts, also shells and teeth perforated

FIGURE 3. The American School of Prehistoric Research digging in the cavern of Pekarna, also called Kostelik, near Mokrau, as guests of Dr. Absolon. This cavern was inhabited for a long period of time as indicated by the six relic-bearing horizons—four of the Old Stone Age and two of the New Stone Age.

for suspension, as well as fossil animal remains, including the tusk of a mammoth of unusually large size.

Unter Wisternitz is in reality a great kitchen midden, not of shells, but of mammoth bones and tusks (Figs. 4-6). What the cave bear was to interglacial man in the Alps at Wildkirchli, Drachenloch and Wildenmannlisloch, and again in Styria at Drachenhöhle, the mammoth was to the Aurignacians camping at the foot of Pollau Mountain under semi-arctic climatic conditions.

We inspected the great loess station of Predmost, where Wankel and

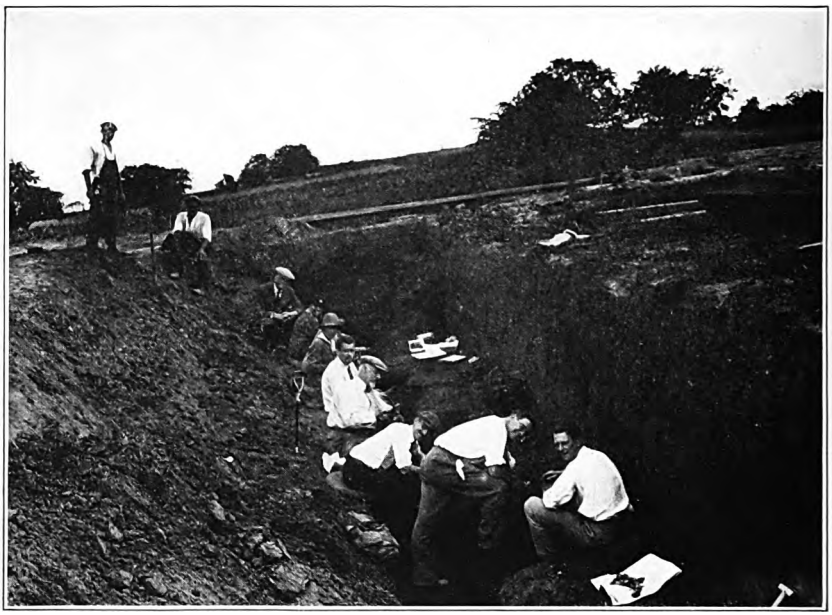


FIGURE 4. The American School of Prehistoric Research digging in the loess station of Dolni Vistonice, Moravia. They found bones and teeth of the mammoth, flint implements, and shells and animal teeth perforated for suspension as ornaments.

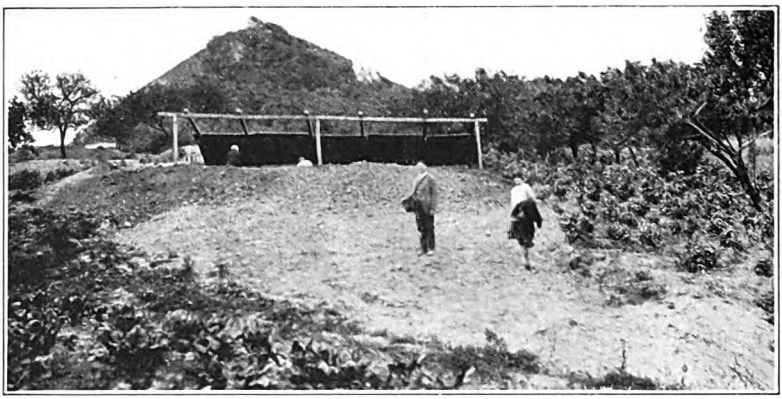


FIGURE 5. The loess station of Dolni Vistonice (Unter Wisternitz) on the northern slope of Pollau Mountain, south of Brno, Moravia. Here Dr. Absolon found in 1925 an ivory human figurine belonging to the Venus type. Old Stone Age, Aurignacian Epoch.

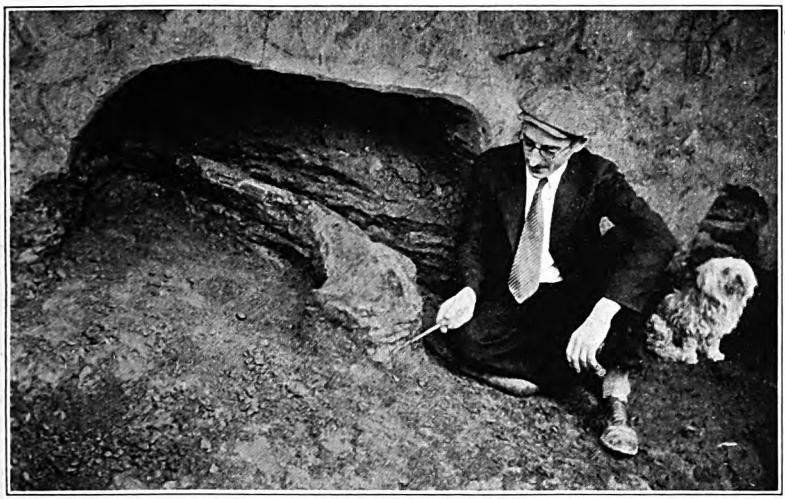


FIGURE 6. A student of the American School finds the tusk of a large mammoth at Dolni Vistonice.

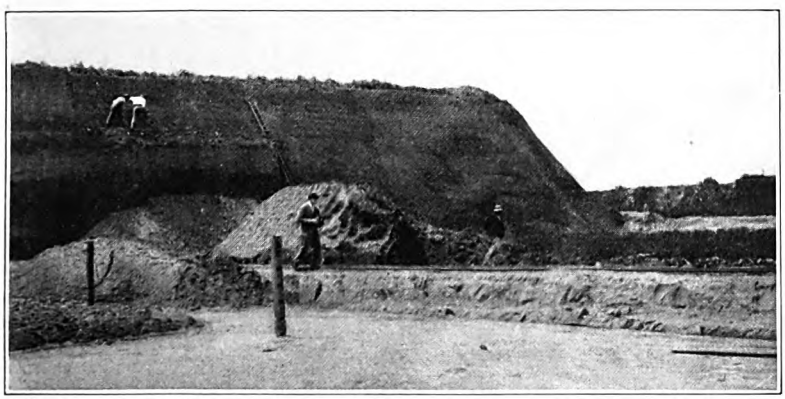


FIGURE 7. The great loess station of Predmost near Prerau Junction, Moravia; like Dolni Vistonice, the camp site of Cro-Magnon hunters of the mammoth. This station has yielded many objects carved out of ivory, many of them beautifully decorated; also crude female figurines carved from the metacarpal of the mammoth. Some twenty human skeletons of the Aurignacian race were found here.

others had made notable discoveries (Fig. 7). The priceless material from Predmost is for the most part in the Museum at Brno. Some of the specimens collected by Wankel, however, are in the museum at Olomouc (Olmütz). This museum, called the Patriotic Historical Museum, was

founded in 1884 (the year Mendel died in Brno) by three pioneers in Moravian prehistory: Dr. Heinrich Wankel, friend of Mendel and grandfather of Dr. Absolon, the present head of prehistoric researches in Moravia; Professor Jan Havelka, and the Abbé Ignat Wurm. The three are appropriately buried in a common grave in the Zentral Friedhof at Olomouc.

Unter Wisternitz is not far from the Austrian frontier and the loess station of Willendorf, where in 1908 Dr. J. Bayer found a perfect Aurignacian stone figurine of the Venus type. He showed us the collections from Willendorf including the Venus, all of which are in the Natural History Museum, Vienna. This museum has other collections indispensible to the student not only of the Stone Age but also of the Bronze and Iron Ages, notably the collection from Hallstatt. Work at Willendorf had been at a standstill since 1914. Immediately after we left Vienna, Dr. Bayer resumed excavation at Willendorf and had the good fortune to find a second Venus, not of stone but of ivory and of somewhat larger size.

In addition to the Natural History Museum collections of prehistory, those in the Prehistoric Institute under the direction of Professor Oswald Menghin and those from the cavern of Drachenhöhle near Mixnitz in Styria, are well worth special study. The latter are divided between the Institute of Professor Othenio Abel in the University building and the Institute of Professor Georg Kyrle, Wiplingerstrasse 7. The Drachenhöhle culture is the same as that found by Bächler in three of the Swiss caverns—Drachenloch, Wildenmannlisloch, and Wildkirchli.

The beginnings of the mining industry first for flint and later for metal ores and salt, are traceable in certain parts of Europe and date at least as far back as the early Neolithic Period. We had already inspected the Neolithic flint mines at Grime's Graves; so before leaving Austria we decided to inspect one of the most important prehistoric centers of the salt-mining industry—that on the Dürrnberg near Hallein, fifteen kilometers south of Salzburg and at an elevation of 770 meters. There was a Neolithic settlement on the Dürrnberg and these early settlers may have been the first to work the salt mines. We know, however, for a certainty that during and since the Bronze Age, salt mining has been carried on there almost continuously to the present day. The tools and even the garments of the miners have been wonderfully well preserved by the sodium chloride, and were seen in the Museum at Salzburg before we visited the mines.

At Mitterberg some thirty kilometers south-easterly from Dürrnberg and at an elevation of 1,200 meters, mining for copper was carried on

during the early Bronze Age. A stop was made at Innsbruck in order that the students might see a typical interglacial fossil-bearing deposit in the heart of the Alps known as the Hötting Breccia near the city and at an elevation of 1,150 meters.

Switzerland offers at least two outstanding attractions to students of prehistory—the remains left by interglacial man in Alpine caverns and the

FIGURE 8. Castel-Merle at Sergeac, showing that portion of the rock shelter which is still protected by the overhanging rock.

FIGURE 9. Section of the rock shelter of Castel-Merle showing the two levels at which relics left by Neandertal (Mousterian) man are found. The man seated is pointing to the spot where a lower molar of Neandertal man was uncovered.

lake villages. The former are seen to best advantage at St. Gallen and the latter at Zurich and Neuchâtel. Not to know what Bächler has found at Wildkirchli, Drachenloch and Wildenmannlisloch is to be ignorant of an important chapter in prehistory. It was purely a cave-bear culture, the anatomy of the bear furnishing food, clothing and one class of tools to the hardy hunters of the Alpine highlands. There is also unmistakable evidence of a cave-bear cult; this early cult may have had many points in common with the bear ceremonialism which still exists among primitive peoples in both the Old World and the New.

From Switzerland we entered France. After stopping at Lyons to see

our colleagues, Depéret, Mayet, and Arcelin, who are joint explorers of the classic station of Solutré, we went direct to the Dordogne for five weeks of digging in the rock shelter of Castel-Merle, near Sergeac (Figs. 8, 9). The past was the third successive season of digging at this station, which reveals three distinct culture levels—two Mousterian and one Aurignacian. The lower Mousterian level is comparatively rich in fossil animal and industrial remains—fauna of the reindeer associated

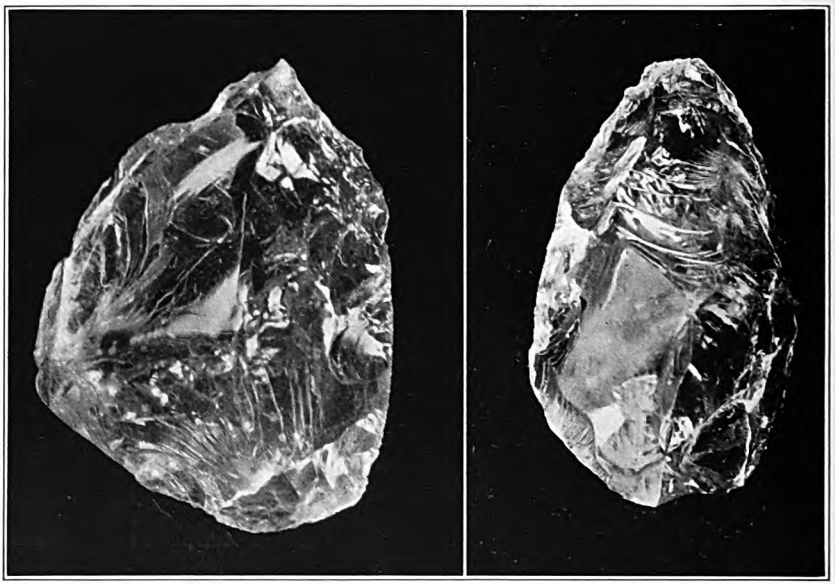


FIGURE 10. Combination scraper-knife of pure rock crystal found in the lower Mousterian level (see Fig. 9) at Castel-Merle. The material from which this implement was made occurs principally in the higher parts of the French, Italian, Swiss, and Tyrolian Alps. (Double size.)

FIGURE 11. Combination scraper-knife and point of Spanish topaz found at Castel-Merle in 1924, also in the lower Mousterian level and hence was in use some 60,000 years ago. (Actual size.)

with typical Mousterian industry, in which the scraper-knife of flint predominates.

During the past season, we were so fortunate as to find a scraper-knife of purest rock crystal at this lower level. It is a worthy companion piece to the scraper-knife of Spanish topaz* found in 1924 at the same level in the rock shelter of Castel-Merle (Figs. 10, 11). The back is perfectly

* Art and Archæology, XIX, no. 3, 127 (March, 1925).

adapted to fit the curve of the forefinger and the dorsal face along the edge has been retouched more than once. The present edge shows the effect of wear; a short bit of it at one end was carried away by a chip accidentally removed in Mousterian times.

FIGURE 12. Two flint implements from Castel-Merle. The smaller is the ventral face of a scraper-knife faultless in outline. From the lower Mousterian level. The larger is a rare triangular cleaver or hand ax from the upper Mousterian level. (Two-thirds size.)

Paleolithic implements of rock crystal, though rare, have been found at other stations of the Dordogne—Liveyre, Laugerie-Haute, and Laugerie-Basse; in Charante at Le Placard; in Corrèze at Chez-Pouré; in Saône-et-Loire at Solutré; in Haute-Loire at Perron; and in Moravia at Kostelik or Pekarna. In only one of these, Chez-Pouré, are the pieces

of Mousterian age. All the others represent later epochs: Kostelik, late Aurignacian; Laugerie-Haute, Liveyre, and Solutré, Solutrean; and Laugerie-Basse and Perron, Magdalenian.

Spanish topaz is a variety of Citrine, the name given to the yellow

FIGURE 13. The reverse of the same two specimens showing the dorsal or retouched face of the scraper-knife and an excresence on the cleaver which the workman did not dare to remove for fear of breaking the specimen. (Two-thirds size.)

varieties of quartz. Some of these varieties, the specimen in question being an example, are of so fine a color and appearance as to be mistaken for topaz by all save gem experts. In Europe rock crystal occurs principally in the higher parts of the French, Italian, Swiss, and Tyrolian Alps.

In the lower Mousterian horizon, we also found a scraper-knife of flint remarkable for the purity of its lines and the masterful manner in

which it was retouched (Figs. 12, 13). It is difficult to realize that this implement was fashioned by a member of the lowly Neandertal race, which was wholly unfamiliar with even the rudiments of cave art. Two of the flint scraper-knives from this lower level bear unmistakable evidence of having been made at some earlier epoch and later found and retouched by the hunters from Castel-Merle. One is water-worn, the wear occurring after it had been removed from the parent block. The other simply shows two widely different degrees of patination. Burnt flint chips and even flint implements were found in both Mousterian levels. The specimen reproduced in figure 14 was a fine and serviceable flint scraper-knife until crackled and pitted by fire; it is from the lower Mousterian level.

The lower Mousterian level yielded one flint nucleus, on which we were able to replace one of the flakes that had been removed (Figs. 15-17). This flake was later retouched along the only utilizable margin to form a sort of scraper; it was found within 15 centimeters (6 inches) of the nucleus. Obviously the retouching had been done soon after the flake was removed and then the piece was dropped near the parent nucleus.

The upper Mousterian level at Castel-Merle differs from the lower in the presence of the type of tool known as cleaver or hand ax (French *coup de poing*). One of these is of special interest because it was left only partly finished (Figs. 18, 19). A careful examination of this specimen serves to throw light on the method of manufacture of a flint hand ax. In this instance, one face seems to have been practically completed well in advance of the other. Judging from the curvature of that which remains of the nodular crust, the nodule was originally not much greater in its dimensions than the hand ax which was in process of being produced from it.

Of the sixty-six cleavers or hand axes found during the past season, one is particularly interesting on account of its shape and workmanship. It is a fine and rare example of the triangular cleaver (see Figs. 12, 13). Near the center of one face, the workman encountered a mass of refractory flint and decided to leave the spot untouched rather than risk breaking an otherwise perfect specimen. The base of the triangle is carefully chipped on both faces almost to the thinness of a cutting edge, as if the implement were intended to be set into the socket of a wooden handle. In other respects, the artifacts from the two Mousterian levels are approximately the same. At both levels are to be found well-executed flint disks; the one reproduced in figure 20 is from the upper level.

The fossil animal remains are practically the same in the two horizons; they include: mammoth, bison, horse, red deer, reindeer, fox, wild boar,

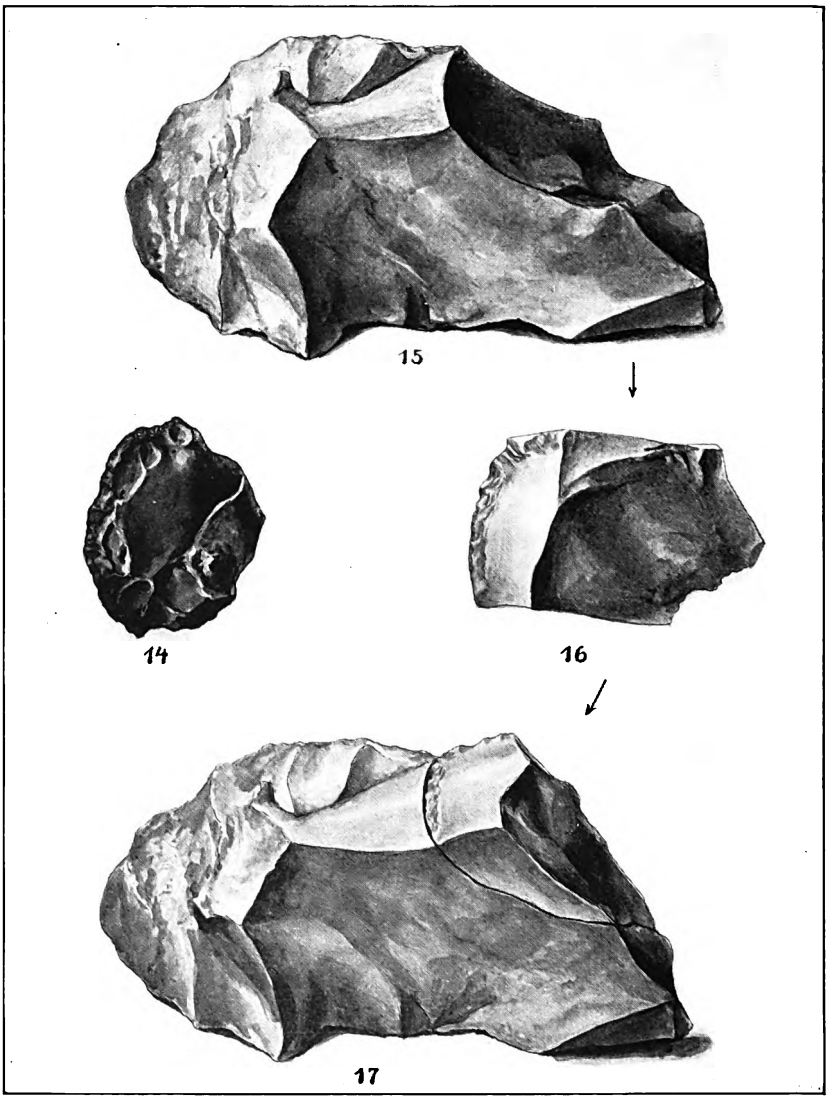
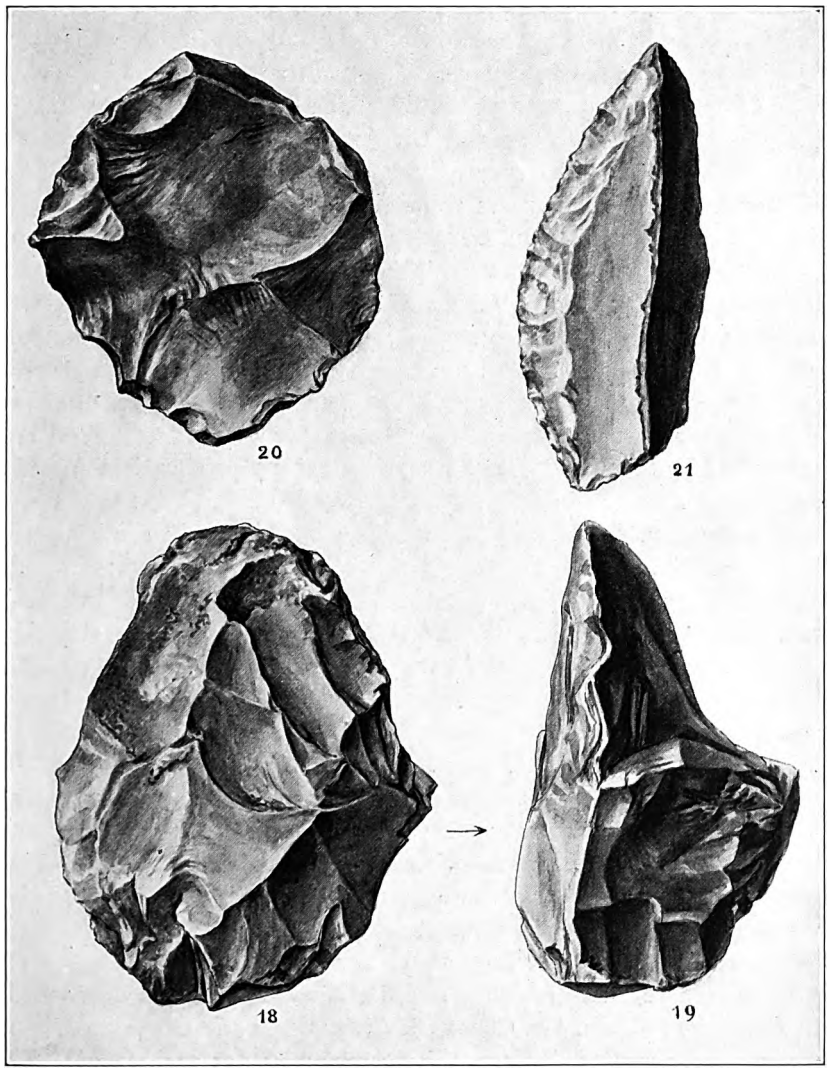


FIGURE 14. Flint scraper which has been crackled and pitted by contact with fire. Lower Mousterian, Castel-Merle. (One-half size.)

FIGURES 15-17. Nucleus of flint and one of the flakes, which had been removed from it and later retouched to form a scraper or plane, then dropped near the parent nucleus. Lower Mousterian level, Castel-Merle. (One-half size.)



FIGURES 18, 19. Unfinished flint hand ax or cleaver, illustrating the process of manufacture. Upper Mousterian level, Castel-Merle. (Two-thirds size.)

FIGURE 20. Flint disk chipped on both faces. Upper Mousterian level, Castel-Merle. (Two-thirds size.)

FIGURE 21. Flint knife of the Audi type, representing a transition stage from the Mousterian to the Aurignacian Epoch. Castel-Merle. (Two-thirds size.)

and wild ox. At the lower Mousterian level, we also found the first (or second) lower left molar of Neandertal man. The tooth is that of an adult, probably male. The crown is worn enough to remove practically all trace of the crown pattern. The two roots are slightly divergent, the anterior being bifurcated at the tip. The measurements are approximately the same as those taken by Sir Arthur Keith on lower molars of Neandertal man from the cave of St. Brelade on the Island of Jersey. The crown measures are: antero-posterior diameter, 12.2 millimeters; labio-lingual diameter, 11 mm. The length of the anterior root is 15.5 mm. and the total length of the tooth, including the worn crown, is 20 mm.

Three pieces of oxide of manganese were found in the lower level, suggesting that Neandertal man made use of coloring matter. Six small masses of iron ore and one as large as a man could lift were all taken from the upper level. At the contact between the Upper Mousterian and the Aurignacian are to be found sparingly specimens of the Audi type, as described by the Abbé Breuil; the flint knife reproduced in figure 21 is an example.

The seven regular students had the benefit of fifty-six special conferences by the Director and various European experts as follows: Dr. F. A. Bather, Professor G. Elliot Smith, Mr. Daryll Forde, Dr. Miles C. Burkitt, Mr. J. Reid Moir, and Mr. Guy Maynard (England); Professors A. Götze and Hess von Wichdorff, Herr A. Möller, Herr E. Lindig, Frau Dr. Eichhorn, and Dr. Wanderer (Germany); Drs. J. Schranil, K. Absolon, J. Skutil, and Monsignor Vyvlečka (Czechoslovakia); Professor Oswald Menghin, Dr. J. Bayer, Dr. Kurt Ehrenberg, Dr. Leisching, and Herr Martin Hell (Austria); Dr. Emil Bächler, Professor Schlaginhaufen, and Dr. D. Viollier (Switzerland); Professor Charles Depéret and Dr. Lucien Mayet (France). Museum and private collections to the number of thirty-one and prehistoric stations to the number of twenty-six were visited, while thirty days were devoted to actual digging.

We were fortunate in having with us for three different periods during the summer, three members of the Board of Trustees of the School—Chairman Addison L. Green, Mr. Charles J. Livingood, and Miss Edna Thuner. Several former students of the School joined us for periods of from a few days to several weeks. Our foreign visitors at the diggings included well-known prehistorians from Canada, England, France, and Germany. Former students of the School are at present making use of their training in prehistory as holders of positions, teaching and curatorial, in seventeen institutions.

LATEST DISCOVERIES

One of the services which the School can perform is to keep the New World informed in regard to the latest discoveries in the Old World as already noted in the cases of Ehringsdorf, Unter Wisternitz, and Willendorf. Although we did not enter Russia, it was our good fortune to be able to examine in Paris important relics recently found in the Crimea. They were dug from the cave of Kiik-koba near Simferopol by Mr. G. Bontch-

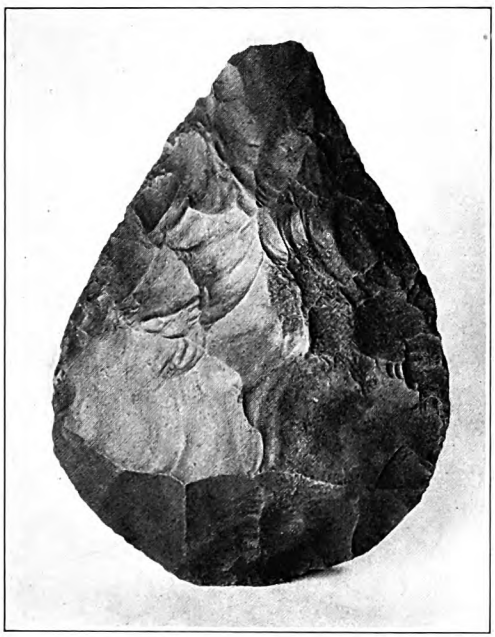


FIGURE 22. Flint cleaver or hand ax beautifully patinated. Found by G. G. MacCurdy at Sambariyeh near Mutallah, headwaters of the Jordan, Palestine. Acheulian Epoch. (One-half size.)

Osmolowsky of Leningrad. The finds include a complete series of bones of the human foot as well as an almost complete set of bones of the hand belonging to an early Paleolithic race. These all probably date from the last interglacial epoch and would thus belong to the same era as the cranium recently found at Ehringsdorf.

Mr. Osmolowsky has compared the bones of the foot with those of the Neandertal man from La Chapelle-aux-Saints and finds that the man from Kiik-koba possessed the more primitive type of foot. The associated

artifacts of flint and quartzite are for the most part atypic but on the whole recall the culture from the lower level at La Micoque in the Dordogne, which is Pre-Mousterian. Osmolowsky has explored other sites near Simferopol including the two caves at Suren known as Suren I (Aurignacian) and Suren II (late Magdalenian), also an early Tardenoisian (Mesolithic) station in the open called Kukrek.

During 1925-26, Dr. E. Passemard carried on a prehistoric (and geologic) survey of Syria. He has located twenty-two hitherto unknown Paleolithic stations of Pre-Chellean, Chellean, and Acheulian Age. His

FIGURE 23. Sambariyeh, an Acheulian station in the open, now a wheat field, where hundreds of flint implements have recently been found. The woman in the foreground is pulling tares. In the background is Mount Hermon.

work is to be continued. Dr. Passemard was one of several French prehistorians who visited us at our diggings in the Dordogne.

Dr. K. S. Sandford of Oxford University has just discovered conclusive proof of the presence of man in the valley of the Nile coincident with the formation of the three successive river terraces; so that if historically speaking Egypt is one of the oldest known countries, she can also boast of being one of the oldest from the viewpoint of prehistory.

In France, D. Peyrony of Les Eyzies has just reported the discovery at the type station of La Madeleine (Dordogne) of the sepulture of a child. The body was richly decorated at the time of burial. It belongs to the Magdalenian Epoch which is the last stage of the Paleolithic Period.

An active campaign of prehistoric research is being carried on in Palestine under the direction of the Department of Antiquities, of which Professor John Garstang was until recently the head. His associate, Mr. P. L. O. Guy, has made a survey which already includes sixty Paleolithic sites. One of these, Sambariyeh near Mutallah, headwaters of the Jordan, was discovered by Major Badcock in 1924 (Fig. 23). The site is now a

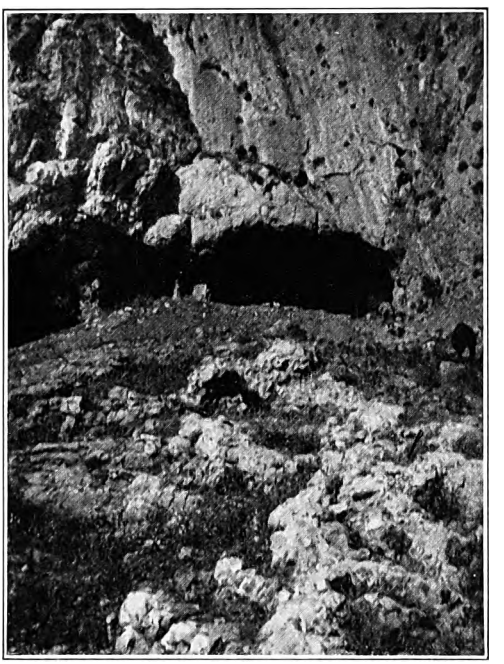


FIGURE 24. The cave of El Zuttiyeh near Tabgha, Sea of Galilee, where the Galilee skull (Neandertal) was found in 1925 by Turville-Petre.

wheat field. The writer with Mrs. MacCurdy and a small party conducted by Major Badcock, visited this station in April, 1926, and in a short space of time found a number of fine examples of the cleaver or hand ax belonging to the Acheulian Epoch (Fig. 22).

Our party also inspected the cave of El Zuttiyeh near Tabgha on the Sea of Galilee, where Turville-Petre found a cranium of Neandertal man in 1925 (Figs. 24-26). This specimen, together with many Mousterian flint artifacts from the same horizon in the cave, is preserved in the museum of the Department of Antiquities in Jerusalem. It has a special

significance because of its being the first evidence furnished by skeletal remains of the presence of Neandertal man on the continent of Asia. That Palestine and Syria are both alive to the importance of archeological research both historic and prehistoric, is attested by the holding of the First International Archeological Congress* last April in Beirut and Jerusalem.

The first skull of the Neandertal race to be discovered (1848) was found at Gibraltar. Later Duckworth explored other caves and shelters

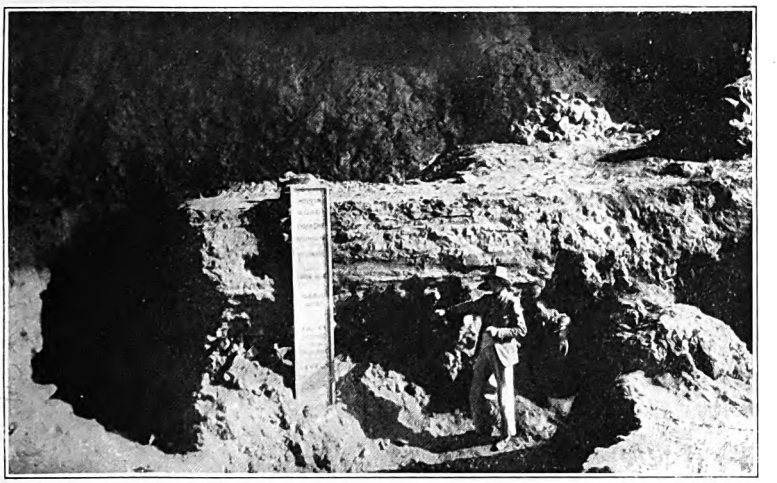


FIGURE 26. Interior of the cave of El Zuttiyeh; Turville-Petre is pointing to the spot where the skull was found.

in the vicinity; he found artifacts of the Neandertal race but no human bones. It remained for Miss Dorothy Garrod of Oxford University to discover in 1926 the skull of an eight-year-old Neandertal child in Mousterian deposits at a depth of some three meters from the surface at Devil's Tower not far from the original site of the first Gibraltar skull. The child's skull, which was exhibited at the Oxford meeting of the British association, is a welcome companionpiece to the cranium of a Neandertal child found during the World War at La Quina (Charente) by Dr. Henri Martin.

Not so old as Neandertal man, yet undoubtedly of Paleolithic age, is the

* The writer represented the Smithsonian Institution and Yale University at this Congress.

so-called London skull recently described by Professor G. Elliot Smith as that of an adult left-handed female of Post-Mousterian Age but with certain Neandertal affinities. It is completely mineralized and came from a blue clay formation at a depth of 42 feet from the surface. Remains of the woolly rhinoceros were found in the same deposit. Only the posterior part of the cranium was found. It probably represents an early type of the Cro-Magnon race.

The region about Spiennes near Mons, Belgium, has been inhabited from Pre-Chellean times down to the present. In Neolithic time the mining of flint was practised here on a grand scale. Traces of these mines and of workshops were discovered at Spiennes in 1840. Since 1911, Dr. Rutot has excavated 80 cabin pits, 18 workshops and six extraction pits. Recently he and his colleague, Lequeux, made remarkable discoveries in four of the horizontal galleries.

The finds consist of a series of objects carved out of chalk and hence could have served no practical purpose. They comprise axes perforated as if for hafting, chisels, vases both plain and ornamented, rings, incised plaques, an animal figure probably that of a bear and lastly a series of human figurines. Some of the latter are in sitting posture, some resemble the crude Aurignacian figurines of bone from the loess station of Předmost in Moravia, and one is not unlike the Venus of Willendorf. Some of the plaques and vases bear representations of the swastika.

Nowhere did Rutot and Lequeux find any trace of metal. They believe that these objects of chalk, if genuine, date from near the close of the Neolithic Period. While it is perhaps too early to fathom their significance Rutot believes they had to do with the practise of magic and are analogous to the fetiches employed by modern primitive races.

Each season's work, each day of digging, reveals new evidence of the increasing debt we owe to our prehistoric ancestors. Fortunately for us this debt is one on which we do not have to pay interest; nor shall we ever have to pay the principal. All that is required of us is to do as our prehistoric forebears did—leave something of permanent value behind and this will qualify us to become worthy ancestors of future generations. For, in the last analysis, we inherit not only from our parents but also from each and every one who has contributed to the cultural environment into which we are born. The lesson then of prehistory teaches us not only how much we owe to the remote past but that we also may have it in our power to leave an impress on something as durable as rock crystal and pass it on to posterity.

GEORGE GRANT MACCURDY.