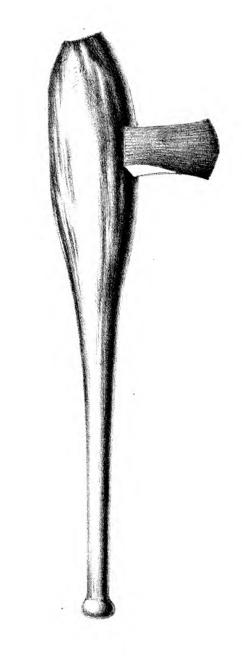
PREHISTORIC MAN.

WITH SOME ALLUSIONS TO HIS RELATIONSHIP TO BUCKINGHAMSHIRE.

BY JOHN PARKER, F.S.A.

The history of man justly engages pre-eminently the attention of the thoughtful of this latter part of the century. It is but natural that it should be so, since geologists have made unlooked-for strides in unfolding to us the secrets, which have been buried within the earth's crusts; and, whilst telling us how, from age to age, life has appeared from the earliest organic remains, tracing it onwards, they have led us with them to look with eager anxiety for the first appearance of our race; and in the research, they have shown us, what we have been taught to believe, that man was the last and crowning act of creation. Archæology is so dependent on geology, that it is difficult to show where the one science begins, and the other ends; the latter clearly overlaps the former.

The object of this paper is to suggest to the members of the Bucks Archæological Society, through its Records, the importance of tracing the haunts of early man, where they may be found within our reach, whether they may be traced on the ancient banks of a river, or marked out on the hill tops; and of pursuing such discoveries with patient and persevering care. This, I say, is the object of this paper, rather than to unfold discoveries already made by the writer himself. A too hasty opening of cairns and earthworks by the inexperienced, has often occasioned a loss in the pursuit of historical inquiry, which can never be recovered. Just as our more prominent prehistoric monuments are considered national, and should be treated with the care befitting the national intelligence, so the remains of early man of lesser importance in each county should be claimed, as a legacy to that county, to be preserved and respected. It may



A NEOLITHIC AXE

be of interest to consider the present position of the question of the earliest traces of man, as yet discovered,

and when he first appeared on our globe.

Neither in the Eocene, Miocene, or Pleiocene formations of the tertiary period, do we find any authentic evidences of the existence of man on the earth; it is not till we reach the mid-Pleistocene formation, that we first discover indications of his appearance. The climate of England in the Eocene age was tropical, it was warm in the Miocene, and temperate in the Pleiocene age, and then it passed into arctic severity in the Pleistocene period. In the late Pleistocene age, we find that the arctic mammals were in possession of this country; they were scattered over a large area in Britain, and it is necessary to conclude from their presence, that our country formed part of the mainland of Europe at that time.* This suggests to us that the Pleistocene, though comparatively recent, is a period of extreme antiquity. We cannot, with any probability, give the distance of time from us, when Britain was severed from the continent. Geikie, in his "Text Book of Geology," says, "In the stratified rocks of the terrestrial crust, we have abundant proof that the whole fauna and flora of the earth's surface have passed through numerous cycles of revolution—species, genera, families, orders, appearing and disappearing many times in succession. On any supposition, it must be admitted, that these vicissitudes in the organic world can only have been effected with the lapse of vast periods of time, though no reliable standard seems to be available, whereby these periods are to be measured. The argument, from geological evidence, is strongly in favour of an interval of probably not much less than one hundred million years, since the earliest forms of life appeared upon the earth, and the oldest stratified rocks began to be laid down." †

Passing then from the consideration of the antiquity of the earth's crust, let us for a moment consider the ages which have necessarily elapsed, to account for the changes which have actually taken place on the surface of our globe; and this will enable us to realize, in

^{*} See Dawkins's "Early Man in Britain," p. 148. † Archibald Geikie's "Text Book of Geology," p. 55.

some degree, the early date to which we must assign the

first appearance of man on the earth.

Playfair informs us, that "the time requisite for taking away by waste and erosion two feet from the surface of all our continents, and depositing it at the bottom of the sea, cannot be reckoned less than two hundred

years."

To give some idea of the slow process by which changes take place, we are informed, that at the present rate of erosion, the Mississippi removes one foot of rock from the general surface of its basin in 6000 years; the Rhone, in 1528 years; the Danube, in 6846 years; the Po, in 729 years. And it is computed that at the Mississippi's rate of denudation, the North American continent would be worn away in about four and a half million years. But the elevation or depression of the land from subterraneous causes must be taken into consideration in estimating the length of time which may have elapsed since changes have occurred.

"On a great scale the floor of the North Sea and that of the Atlantic Ocean, for a distance of 300 miles to the west of Ireland, may be regarded as a marine platform that once formed part of the European continent, and has been reduced by denudation and subsidence to its pre-

sent position." *

From the foregoing remarks we are assisted in comprehending the geographical position of Britain in the late Pleistocene age, when, we may venture to assume, the human race were living with the mammalia of a still earlier period. Man lived in Britain with extinct animals of the early and mid-Pleistocene periods, such as the cave bear, the small-nosed rhinoceros and woolly rhinoceros, the Irish elk, the mammoth and straight tusked elephant; and with survivals from those periods, such as the grisly bear, otter, fox, wolf, spotted hyæna, lion, horse, bison, and hippopotamus; and with new forms, such as the leopard, badger, Arctic lemming, reindeer, Arctic fox, and glutton. In the latest part of the Pleistocene period, the Arctic mammalia roamed over Britain, the possessors of the soil. The evidence of the connection of Britain in the late part of the Pleistocene age with the mainland

^{*} A. Geikie's "Text Book of Geology," p. 450.

of Europe, is considered to be proved by the remains of animals of that period being found in a large area of Britain, and in various places now covered by the sea.* Boyd Dawkins concludes, that "Britain stood at least 600 feet above its present level, and that the rivers of our eastern coast, the Thames, Medway, Humber, Tyne, and others, joined the Rhine, the Weser, and the Elbe, to form a river flowing through the valley of the German Ocean. In like manner, the rivers of the south of England, and of the north of France, formed a great river flowing past the Channel Islands due west into the Atlantic, and the Severn united with the rivers of the south of Ireland. The watershed between the valleys of the British Channel and the North Sea is represented by a ridge passing due south from Folkestone to Dieppe, and that between the drainage area of the Severn and its tributaries on the one hand, and the Irish Channel on the other, by a ridge from Holyhead westward to Dublin. This tract of low undulating land which surrounded Britain and Ireland on every side, consisted not merely of rich hill, valley, and plain, but also of marsh land, studded with lakes, like the meres of Norfolk, now indicated by the deeper soundings. lakes were very numerous to the south of the Isle of Wight, and off the coasts of Norfolk and Suffolk." †

I have purposely dwelt at some length on the features of this country in the earliest stages of man's appearance in Britain; he might have lived before the glacial climate had set in, as there are traces of his remains amid the remains of mammalia existing prior to an arctic temperature. We trace him either in the river strata or in the ossiferous caverns; but he was but a poor specimen of humanity; without domestic animals, without the use of polished stones or metals, subsisting by the chase, or by fishing or fowling; his rude wants amply supplied, as they must have been, from the game of the forests, from the animals that roamed in herds across the land, and from the fish which abounded in the rivers, by whose banks he chose to dwell; his shelter nothing

^{*} For instances see Boyd Dawkins's "Early Man in Britain," p. 149. † Ibid. p. 151. See also Admiralty Charts, Stieler's Band Atlas, Ramsay's Orographical Map of England and Wales.

more than one of nature's caverns, which afforded a home, now to himself, and now to a cave bear, or a spotted hyæna. Such was the River-drift man in the Palæolithic age; he is found over a vast extent of country in Europe, India, and Africa; but as no interments are proved in the age we are considering, to discover his actual existence

requires careful investigation.

As we have seen, the River-drift man had not learnt to till the ground; what he has left behind, therefore, were the tools or weapons which supplied his simplest wants. The Palæolithic age is supposed to have extended over a lengthened period, commencing perhaps as far back as the mid-Pleistocene time; the implements then, it may well be supposed, show a marked development as time advances. At first they were of the rudest type. A stone would be simply smashed, and one of its fragments chosen for its point or sharp edge, as a tool that would answer the purpose of its untutored possessor. In the late Pleistocene river beds, we are told, that the following implements have been discovered. flake chipped to an edge on one side; 2. The hache, or oval-pointed implements intended for use without a handle; 3. An oval or rounded form, with a cutting edge all round, which may have been used in a handle; 4. A scraper for preparing skins; 5. Pointed flints used for boring.* "From the rude and heavy bludgeon the men had advanced to beautiful oval and ovate forms, almost perfect in geometrical precision. The progress from the large and rude to the extremely small and neat scraper, shows that the men had probably progressed in the art of dressing skins, and in every way did finer and neater things." +

The discovery of human remains in association with extinct animals, first led to the idea of the antiquity of man's existence on the earth. To gain some conception of the great break of time which separated the quaternary or Palæolithic from the prehistoric or Neolithic epoch, we have to consider what have been the differences of the mammalian fauna; it has been pointed out that, "Out of forty-eight well-ascertained species living

^{*} Boyd Dawkins's "Early Man in Britain," p. 163. † Article in "Nature," January 18th, 1883.

in the former, only thirty-one were able to live on into the latter; and out of those thirty-one, all, with the exception of six, are still living in our island. The cave bear, cave lion, and cave hyæna had vanished away, along with a whole group of pachyderms; and of all the extinct animals, but one, the Irish elk, still survived. The reindeer, so enormously abundant during the postglacial epoch, lived on greatly reduced in numbers; while the red deer, which was rare, became very numerous, and usurped those feeding grounds which formerly supported vast herds of the reindeer. With this exception, all the Arctic group of mammalia, such as the musk sheep, and the marmots, had retreated northwards; a fact which shows that the climate of Britain, during prehistoric times, was warmer, or rather less severe than during the former epoch."* The goat, sheep, longfaced ox, and dog do not appear in Britain till the Neolithic period. Now, as before observed, Palæolithic implements are found in gravel deposits and in caves. Mr. Sketchley, in a lecture in November, 1883, at the London Institution, on "The Scientific Study of Man," pointed out, that all over that part of Western Europe which the ice did not touch, Palæolithic tools are found in surface beds, whereas beyond that area they are only found in caves; and his explanation was that in the great glacial period, the ice swept away the relics from the surface. But although it has been generally understood that the flint implement-bearing gravels are later than those of the glacial period, Mr. Sketchley appears, from the extracts I have been able to obtain of his lecture, to have himself discovered "a series of implement-bearing beds below a very ancient glacial deposit," and refers to this as evidence of man's occupation of this area in very early times. The gravels containing terrestrial and fresh water remains are those in which we may expect to find flint implements; they have been chiefly found in the gravels of chalk districts; these gravel deposits, it would appear, had been the result of the excavations of rivers, in the formation after lengthened periods of their valleys, through the influence, to a far greater degree than we can at present conceive, of rain, snow, ice, and frost.

^{*} Trans. : Prehist. Cong., 1868, p. 278.

In England, at all events, there have not been found any remains of animals so small as man in the gravel deposits, but the specimens of implements left in these deposits, indicate in a remarkable degree, wherever found, whether in England or France, a correspondence in their formation. They differ from the implements of the Surface or Neolithic period: unlike specimens of the latter, they are never sharpened by grinding or polishing, they were used simply for cutting, boring, or scraping; often, it has been suggested, for cutting through the ice for fishing purposes. The River-drift man is thus made known to us by the imperishable objects he has left to us, and these are the earliest relics of the human race at present discovered. Specimens of these Palæolithic implements have been found in the course of the river Ouse, and in the valley of the Lusk, which empties itself into the Ouse. In the valley of the little Ouse, and in the valley of the Waveney, and not only in Eastern, but in a great part of Northern England, similar traces of man have been discovered in the river deposits.

The lower Thames Valley, however, has been the spot of all others in this country, where the River-drift man settled; his traces are discovered with the big-nosed rhinoceros, an animal existing prior to the advent of the arctic mammalia. As far back as 1690, a roughlychipped pointed implement was dug up in association with the remains of an elephant in the gravel at Gray's Inn Lane. Boyd Dawkins mentions a discovery witnessed by himself in 1872, of a flint flake in the lower brick earths at Crayford. Also in 1876 he mentions a second implement was found in the same series of beds at Erith in situ; this is a roughly-chipped flake considerably Similar implements are traced in the worn by use. neighbourhood of Salisbury, among the river gravels, especially at Bemerton and Fisherton. To give some idea of his resources as a hunter, the River-drift man's traces are associated in Wiltshire with the bones of many species of mammalia. "In the spring, summer, and autumn there were stags, bisons, uri, horses, pouched marmots, woolly rhinoceroses, and mammoths, and in the depth of winter, lemmings, reindeer, and musk sheep. Wild boars were in the woodlands, and hares in the glades. The hunter had, however, formidable beasts of prey, the

lion and the spotted hyæna, as his competitors in the chase." *

Pre-eminently, the authority on this subject, giving the forms, successions, and distribution of the implements in Britain, is Dr. John Evans, in his work on "Ancient Stone Implements," to which I shall have frequently to refer hereafter.

In France similar traces of the same human race, and under the same conditions, were discovered in the river deposits of the Somme at Amiens and Abbeville, in the second quarter of this century, and since then similar dis-

coveries have been made in Southern France.

Referring to the evidences of early man in France, we should bear in mind that Frenchmen have laboured most diligently in this field of research. The first name that occurs to us is that of M. Boucher de Perthes, in connection with the flints discovered at Abbeville, and the Musée de St. German, it is considered, exhibits the implements of the first Stone age in the most approved method of arrangement. M. Joly, who has recently published "Man before Metals," in the "International Scientific Series," as far back as 1835, contributed a paper, which appeared in the "Bibliothèque Universelle" of Geneva, in which he suggested that man probably existed in Western Europe with some of the extinct mammalia of the Pleistocene period, deriving his evidence from the exploration of a bone cave at Lozère; his conjectures were at the time discountenanced, but he has lived to see them confirmed, and to give to the world the benefit of his later researches.

In the rapid survey of this most important subject, I can only call the reader's attention to the merest outline of a question which must engage increasing attention, and still more earnest research: but I cannot but pause to remark on the striking evidence of the gradual improvement of man's condition, attested by the tools and weapons he has left behind him; these furnish the bare record of pre-historic man. When we speak of the Stone age, the Bronze age, and the Iron age, we refer to long periods of time—how long it is impossible to say; but we speak of distinct epochs, through which, though

^{*} Boyd Dawkins's "Early Man in Britain," p. 162.

much must still be left to conjecture, we shall surely trace the gradual civilization and culture of the human race.

We can, it is true, find the stone implements used in the Bronze or Iron age, but we know that flint weapons were the earliest used by man. The roughly-chipped flake used for cutting, and found in the river deposits, was an instrument handed down to historic times. The Egyptians used it, and it is found in sepulchral remains of the Britons in Sussex and Kent.

We can scarcely mention the name of Egypt without recalling the early culture of man, history in its, to us, most distant development. We think of Egypt and its civilization with something of awe; the mystery of the silent tombs of the Pharaohs is as a dream, and not the reality of a far-distant past; but in speaking of the Palæolithic tribes, the Egyptian is as the creation of to-day, for we are carried to periods in man's history, the distance of which we cannot possibly measure. The man who is distinguished in Britain as the River-drift man, belongs, it is believed, to an entirely extinct race. The authorities on this question of anthropology seem to be uncertain, whether man of the mid and the later Pleistocene age was of a kindred descent; he is indiscriminately known at present as of the Palæolithic age. His remains are found in Central Asia, through Europe, and in parts of Africa.

We now follow up our subject by considering the next race of men who appear in the order of succession. These were the Cave men; they were still of the Palæolithic period, but were a race superior to the River-drift men. Like the latter, we cannot claim them as in any way associated with the men who left their marks on the uplands of our southern counties; but it will be interesting to bring down the succession of races, till we come to times, when we can with some confidence say, that the men of a certain age lived and died on our familiar hills, whose fortresses and burial mounds are

with us to this day.

The caverns of Derbyshire, of Wales, Somersetshire, Devonshire, and Nottinghamshire were the abodes of the River-drift men, and at a later period, and often in an upper strata, of the Cave men. "Fortunately for us,"

says Mr. Boyd Dawkins, "the Cave men employed the intervals of leisure from the chase in engraving upon bone, antlers, and, more rarely, on ivory and stone, the hunting scenes, which most vividly impressed themselves upon their memory." The sculpture and engraving of these Cave men, considering the rude tools they must have employed, give us a very high estimate of their artistic power, far in advance of that displayed by many races which have succeeded them. So far as their traces have been found, the range of the Cave men seems to have been limited, extending from the Alps and Pyrenees as far north as Derbyshire and Belgium, and not yet found farther east than Poland and Styria. It is conjectured, from a similarity in the habits and attainments of the Eskimo of the present day with those of the Cave men, that the former can be identified with the latter, who may, it seems, be classified with the reindeer, the musk sheep, and the animals of a northern latitude.

It will be interesting to refer to some of the caverns which have brought to light the existence of these Cave men. But a word upon the formation and characteristics of the caverns themselves will not be inappropriate. Mineral springs occasion considerable loss of substance to subterranean rocks, as they continuously bring matter to the surface; by this means subterranean tunnels, channels,

and caverns have been formed.

"In regions abounding in rock salt deposits," says Dr. Geikie, "the result of the solution and removal of these by underground water is visible in local sinkings of the ground and the consequent formation of pools and lakes. The landslips and meres of Cheshire are illustrations of this process. In calcareous districts, however, more striking effects are observable. The ground may there be found drilled with vertical cavities (swallowholes, sinks, dolinas), by the solution of the rock along lines of joints that serve as channels for descending rainwater. Surface drainage thus intercepted, passes at once underground, where in course of time an elaborate system of spacious tunnels and channels may be dissolved out of the solid rock. Such has been the origin of the Peak Caverns of Derbyshire, the intricate grottoes of Antiparos and Adlesberg, and the vast labyrinths of the Mammoth Cave of Kentucky. . . . By the falling in of the

roofs of caverns a communication is established with the surface, and land shells and land animals fall into the holes, or the caverns are used as dens by beasts of prey, so that the remains of terrestrial animals are pre-

served under the stalagmite."*

The explanation here given brings before us in a clear light the formation of the ossiferous caverns. These caverns afford the most important evidence, indeed almost the only evidence, of the prehistoric mammalia. Many of them were used as dens of various carnivora, such as the hyæna, the cave lion, the cave bear. Here these animals often left the bones of their Some beasts would resort to shelters of the kind to die, or bones might accumulate in cavernous holes, swept into them by sudden inundations. Dr. Geikie remarks, that as these recesses lie for the most part in limestone or calcareous rock, their floors are commonly coated with stalagmite from the drip of the roof, and as this deposit is of great closeness and durability, it has effectually preserved whatever it has covered or enveloped. The fall of débris has often closed the openings to these cavities, and when once again light is thrown into their interiors, we can but conjecture how the bones had for ages been deposited there. Not only have beasts of prey and their victims been discovered, but in some of these caves, man also found a shelter and a home. Thus we see, that these subterranean caves enable us to gather knowledge of prehistoric life, the value of which we can scarcely estimate; yet we must bear in mind that they can but give us a mere partial conception of the animals which at similar periods existed and roamed at large over hill and plain.

Let us now give our attention to some of these bone caves; the Robin Hood Cave in Derbyshire, which reveals the presence of man, will probably give a good example of the value of ossiferous caverns. It shows "a regular sequence of events." First, in a deposit of red sandstone, there were the bones of lion, grisly bear, wolf, common fox, bison, wild boar, brown bear, reindeer, Irish elk, rhinoceros, and mammoth; these

^{*} Geikie's "Text Book of Geology," pp. 355-605.

from the marks of teeth on their remains had fallen a prey to the spotted hyæna, now only found in Central and Southern Africa; it must be imagined that the hyæna hunted in packs and overwhelmed their victims, some of which were, of course, a match for the hyæna in single combat. The first stratum then was a den of hyænas in which human remains are not found.* The cave known as the "Pin Hole" at Creswell Crags in Derbyshire, first led to the conclusions arrived at with reference to the Robin Hood Cave; in the former were the glutton and Arctic fox, but not the lion, the wild boar, and the brown bear; the remains of the animals were scored and marked with teeth, showing that they had been a prey of some carnivore, and this creature proved to be the spotted hyæna; the presence of the Arctic fox and reindeer proves the severity of the climate at the period the cave was inhabited. I now proceed with the account of the Robin Hood Cave. Above the first stratum was one of red earth containing the same species of remains, and also a large number of rude implements of "flint and quartzite, triangular flakes, which had been used for cutting, oval implements with a cutting surface all round, and scrapers, which from their likeness to those in use among the Eskimos and North American Indians, were intended for the preparation of hides." Similar implements were found in the caves of Moustier, in Auvergne, and the lowest strata in the well-known cave of Kent's Hole in Devonshire, and they have been found in the Alps and Pyrenees, in Palestine and India. The remains in this stratum prove that the cave was then inhabited by rude hunters, probably the River-drift men, and when they left it, the hyænas returned to their old haunts. The third stage in the history of the cave reveals, amid the bones of rhinoceros, hyæna, and reindeer, implements made of flint brought from a distance, more highly finished and of superior workmanship to the implements in the second stratum. This cave was discovered in the autumn of 1875; in the "Early Man in Britain," there is a more elaborate description of the Robin Hood Cave, which concludes thus:—

^{*} I have abbreviated the description of this Robin Hood Cave from the "Journal of Anthropological Institute," vol. vi. p. 95.

"The most important discovery, however, made at this horizon is that of a small fragment of rib, with its polished surface ornamented with the incised figure of a horse; the head with its eyes, mouth, and nostrils is admirably drawn, and a series of fine oblique lines stopping at the bend of the back, proves that the animal was hog-maned. It is the first instance of the discovery of the figure of an animal in this country." The implements and sculptured rib are the work of the Cave men, of whom I shall have more to say. The disclosure of more recent time was "a modern accumulation of surface soil containing fragments of Roman and mediæval pottery." So that after a lapse of ages, when the animals before mentioned became either extinct or retreated to hotter or colder climates, this remarkable cave became inhabited in historic times. It will be seen from the description given, of what vast importance the unfolding with patient care the contents of such a repository as the Robin Hood Cave has proved.

There is a group of caverns at Creswell Crags; besides the Pin Hole and Robin Hood, there are the "Mother Grundy's Parlour" and the Church Hole Cavern. In the latter cavern the same bone-producing strata are repeated as in the Robin Hood Cave, and in the same order. Mother Grundy's Parlour there was discovered a yet lower stratum, in which were the remains of hyænas, bisons, three hippopotami, and the small-nosed rhinoceroses. Professor Boyd Dawkins and Mr. J. M. Mello explored these caverns and made the important discoveries which I have briefly mentioned. In the cave at Pont Newydd in North Wales, near St. Asaph, human remains have been found with the remains of the hippopotamus in a strata corresponding with the lowest strata in the Mother Grundy's Parlour Cavern, and this appears to be the earliest evidence of man's occupation of caverns in Europe. I have entered fully into a description of the Robin Hood Cave to explain the nature of these ossiferous caverns, and how they bear on the subject of prehistoric man, and the animals with whom he was associated; I therefore do not propose to describe any other British caverns. In the caves of France the same strata are revealed as in the Creswell Caverns, the lower show the implements of a ruder type of man, the upper the remains of man in a higher stage of civilization. The most advanced implements of the Palæolithic age are found in the cave of La Madelaine; in this cave are found the beautiful bone and stone carvings, some of them real works of art, others of great palæological interest; there are drawings of the reindeer, of the mammoth, and of prehistoric man himself. In this cavern a drawing has been found of man hunting bisons and horses; he appears to have surprised the herd of horses, and the two heads of the bison are drawn with much artistic effect. Before we leave the Cave men, let us consider their habits and their progress in civilization, so far we can gather information from the scanty resources afforded to us.

Although the Cave men may have had no habitations on the uplands of Buckinghamshire, they were, as we shall see, associated with the county. We have already seen that traces of the River-drift men have been discovered among the river deposits on the banks of the Thames, and it is probable that the Cave men also encamped near to the river, and therefore in the most picturesque parts of Bucks; such were their habits, for besides discovering their remains amid caves and rock shelters, traces of them have been found at Solutré, in the valley of Saone in France. Like their predecessors, the Cave men were essentially sportsmen; they lived upon their success in the chase, or on fowling or fishing. No evidence has been discovered of their being acquainted with the art of pottery; the vessels which they used to contain liquids must therefore have been skins or horn, of which they must have had an abundant supply. They appear to have had no domestic animals, nor do they seem to have practised the art of agriculture in the simplest form. Yet they must have been greatly in advance of the River-drift men; their weapons for the chase were far superior, they had a remarkable talent for engraving and sculpture, the handles of their weapons were often beautifully designed and exquisitely carved, and the incisions on pieces of antler discovered reveal a remarkable artistic power and singular perception of beauty, altogether superior to anything of the kind produced by the succeeding races, notwithstanding the disadvantages arising from the inferior tools they must have possessed.

There are reasons for supposing that the Eskimo of the present day is the representative of the Cave men, from many similarities in habits and culture; but it is

not my purpose to discuss this question.

The value of the skill of the Cave men can be judged from the representations they depicted of the extinct animals then existing; the well-known engraving on ivory of the mammoth found in the cave of La Madelaine before referred to illustrates the importance of these specimens of early art.

Whilst the River-drift men's traces may be found from their wanderings over India, Asia Minor, North Africa, and Western and Southern Europe, the Cave men are traced over a large part of Europe; but for the cradle of man's existence we naturally point to Central

Asia.

We now leave the Palæolithic for the Neolithic age, still passing through the prehistoric period, the beginning of history being as yet in the remote distance.

The last of the geological periods is thus subdivided

by Dr. A. Geikie:-

"Historic up to the present time-

Prehistoric | Iron, Bronze, and later Stone. | Neolithic. | Palæolithic."

It is difficult to conceive of the distance of time which must have elapsed from the Pleistocene age to the commencement of what is termed the prehistoric period; during the former age, we have seen, great changes took place in the geography of Britain, and so did they in the zoology. The slow progress of change which has occurred within the memory of man in our river valleys, and an examination of the prehistoric deposits, compared with the Pleistocene strata, will give some notion of the duration of the Pleistocene age.

We have, however, arrived at a period when we can tread on surer ground. We come to a time when the remains of man are impressed on the hills of England, are found in caverns, in the peat bogs of Ireland, and in the lake dwellings of Switzerland. Little of the life of the earlier ages remained, for the Irish elk, alone of all extinct animals, still survived. The human race was

advancing in civilization. We shall find that the flint weapons were polished, there was an acquaintance with agriculture, the potter's art was known, spinning and weaving were practised. Neolithic man was a miner, and he left proofs of the honour he paid to the dead by the tombs still found amongst us; and, as there are no interments attributable to the Palæolithic age proved, this practice of interment is an important sign of an advance in culture. In the words of a recent University sermon by the Rev. C. W. Stubbs, "After all, the grand sweep of things is from the lower to the higher those laws which in the beginning produced the original diffusion of the race, compelled man to abandon predatory habits and take to agriculture, led to the clearing of the earth's surface, forced man into the social state."

For the most part, we must look to the downs and uplands of chalk or colitic formation for the first attempts at tillage in this country. The dense forests of Britain were then uncleared, and vast morasses spread for miles across the land. Man had, too, to reckon with wild animals that disputed with him the lordship of the valleys; the brown bear, the grisly bear, the wild boar, and the wolf were denizens of the forests and woodlands. The open country afforded him safety at least, and made him contented for a time to wait for the richer soil of the plains. On the high ground of this island, therefore, time was when there were "seats of population and a tillage," both of which have long past away, but the hills disclose the former habitations of a race once existing, and the memorials of its dead, which the plough has not since disturbed, and which are still to be traced. It has been well remarked that these vestiges of the past furnish us, even in historic times, with "evidence more trustworthy than that of the written chronicle." *

But I would first refer to the remains of Neolithic man found in the caverns of Britain. I do so, because Professor McKenna Hughes advised me, when in North Wales in the autumn of 1880, to see a remarkable cave under the Great Orme's Head at Llandudno, and I confine

^{*} See Green's "Making of England," pp. 7, 8.

myself to a reference to that cave. The human remains discovered there, at the time I visited it, were portions of four skeletons, three adult and one child; the men were of small stature, averaging about 5 feet 4 inches. The associated animals were the badger, brown bear, short-horned ox, sheep or goat, boar and horse.

There were ornaments found, namely, two pendants, or ear-drops, made of the right and left upper canines of the brown bear; the lower jaw of a horse was found marked with an incised zigzag or chevron pattern. The upper canines of the bear were also found, having the extreme tip of the fang perforated for suspension; a number of them were discovered, and were evidently strung together and used as a necklace.

Before my visit, Professor Boyd Dawkins saw the cave, and made some valuable notes upon it. His conclusion was, that this was a place of interment, and, in his words, "belonging to the small long-headed Iberic aborigines, who possessed Europe, west of the Rhine and north of the Mediterranean, in the Neolithic age."

To find any traces, however, of this age in Buckinghamshire, we must more especially devote our attention to the chalk hills. The earthworks of this county are not to be compared, for instance, to those of Dorsetshire, to such magnificent entrenchments as Maiden Castle, near Dorchester, and to the many other earthworks so elaborately illustrated in Warne's "Ancient Dorset." Still the Chilterns afford remarkable traces of man. which deserve more careful investigation. Dr. T. W. Smith, in his Introduction to "Ancient Dorset," * evidently attributes to the Neolithic period the long and chambered barrows of the counties of Wilts, Gloucester, York, and Derby; in these no objects of metal are found and inhumation of the body was practised; and he lays it down as an axiom that long barrows are to be classed with long skulls, round barrows with round skulls. If he is to be relied on, then here we have the work of man before us in the first stage of the prehistoric period. It is on the hill-tops that we shall more especially find evidences of the settlement of this early race in Britain.

^{*} See "Notes on Ancient Dorset," by Charles Warne, F.S.A., with an Introduction by Dr. T. W. Smith.

Inhumation, as I have mentioned, was first practised; cremation was the practice of a later age. With the body, in these earliest tombs generally found buried in a crouching position, were the weapons and implements which were used in life, the arrow-head and the celts, and also pottery, possibly the drinking cup and the accompaniments of the meal, showing evidences of the belief in a future state, so prevalent among all races, whether civilized or barbarous.

I have referred to the abode of the dead; let me say a word as to the habitation of the living. Sir R. C. Hoar says, "The earliest habitations were pits or excavations in the ground." "A perfect specimen," (I quote from Warne's "Dorset,") "of a pit dwelling would present the form of an inverted cone from eight to ten feet in depth; the covering would probably be branches of trees, sods of earth, or turf-roofed by means of poles." These pits or hut circles were often clustered together within an earthwork or camp on the tops or at the sides of the hills, and it is very probable that many of the circular depressions on the Chilterns may have originally been pit-dwellings; as, however, excavations are so frequently made for the chalk itself, it requires care in attributing too hastily a depression of this kind to such an origin.

These pits have a circular shaft for an entrance: "at the bottom they vary from five to seven feet in diameter, and gradually narrow to two and a half or

three feet in diameter in the upper parts."

Just as the cavern has unfolded the habits of the River-drift and Cave men, so these pit dwellings have disclosed the habits of the Neolithic age. In them have been found the instruments for spinning and weaving, specimens of pottery, and instruments for grinding corn, showing an acquaintance with agriculture. Animals, too, have been found in these dwellings, and amongst these I may mention the dog, horse, and pig.

We now arrive at a very interesting and important question in connection with Neolithic man, namely, whether any of our earthworks and camps can be assigned to the period under consideration. The arrowheads and spear-heads, so frequently found, are evidences of the warlike propensities of the Neolithic races,

and it is laid down as a certainty that these races formed many of the camps on commanding positions above the rich valleys, as fortifications in times of tribal wars.

An attempt has been made to classify the various camps that are still met with; the prehistoric, the Celtic, the Roman, and the Saxon, and to distinguish the camp of any particular period by its shape, size, and means of defence. Much has been written on this subject, and it would indeed be most fortunate for the antiquarian and the historian, if each could speak with certainty as to the age when a particular camp was formed; how much light might thus be thrown on local

events in the past, it is impossible to say.

Wishing, as far as opportunity allowed, to explore the Chilterns in Bucks, with the view of classifying the fortifications so often met with, but to determine the age of the camps by external appearances only, the writer was about to commence his task, when he thought it might assist him, if he had the advantage of the practical acquaintance of others with the subject. He accordingly wrote to General Pitt Rivers, who may well be considered the highest authority, and who most obligingly gave his extremely valuable experiences. He said that he "began his first paper on the Hill posts of Sussex, published in the 'Archæologia,' with a general description of camps, based upon a superficial inspection of them, and he fully intended to have continued it in a series, and to that end he examined the greater part of the camps in the south of England, and many of them in the northern part of France; but luckily," he remarks, "he had in the meantime occasion to dig out the ditches of one or two, the result of which was, that he entirely abandoned his first intention, and determined to proceed more cautiously. The fact is," he writes, "the principles of defence in early times are so simple and uniform, and the varieties so greatly dependent on the configuration of the ground, that it is impossible to say without reference to associated relics to what age a camp belongs. Many persons," he proceeds, "have attempted to classify these camps, but their classifications are based on insufficient data, for they tell a Norman stronghold in France by its moat, or a Roman from a British camp, but as to distinguishing a late Celtic from a Bronze period camp, or these, again, from varieties in different districts of the same period, there is not at present data enough to go upon." The learned antiquary concludes by saying, "I feel certain that no one could do better work for prehistoric archæology in his own district, than to take a camp and cut sections through it. I have cut sixteen of these in various parts of the country, and the result has been, to diminish greatly the confidence that I commenced with, in pronouncing upon the age of an

earthwork by its external appearance."

I have quoted at length from this important communication, because it appears of the utmost consequence that the different camps on the Chilterns should be examined, each with care and attention. To do this, excavations cannot be made without the consent of the Lord of the Manor, or other owner of the soil; and it would seem to be the peculiar province of a local Archæological Society to undertake so interesting a work, rather than to leave it as a task for some private explorer, who may not have the influence at his command to enable him with thoroughness to prosecute his researches.

"The varieties of camps greatly depend on the configuration of the ground," this may be termed the axiom from which to draw conclusions; except a strictly Roman camp, therefore, we cannot from mere external appearance attribute to any particular period or race the earthwork fortifications which crown so many of our hills. The Roman camps, we know, were generally rectangular, although Vegetius de re Militari, lib. i., cap. xxiii., says, "Interdum autem quadrata, interdum trigona, interdum semi-rotunda, pro ut loci qualitas, aut necessitas postulaverit, castra facienda sunt." There is no doubt, however, when the legions of Rome invaded this country, on gaining some important strategic point, they utilized the Celtic camps, from which the retreating tribes were driven; this is proved by the Roman remains frequently found in the earthworks of earlier settlers.

The Rev. W. J. Burgess, in a valuable paper in the first volume of these Records, entitled "Antiquities of the Chiltern Hills," besides alluding to the different barrows to be found, points out some interesting camps; he mentions that at Tottenhoe, on the borders of this

county and Bedfordshire, there is a circular camp, whilst close at hand is a large square or rectangular fortification called Maiden-bower. This word, "Maiden," I may mention in passing, is supposed to be derived from the Celtic word Mai, and to have its origin in Sanscrit, and to signify an open expanse; thus we have that remarkable earthwork in Dorsetshire, to which I have before

alluded, and known as Maiden Castle.

Mr. Burgess then refers to works of similar aspect on the hill near Aldbury, Herts, and to "a very strong circular embankment, with deep fosse and well-defined entrance," at Hawridge, near Chesham, and mentions a circular and a rectangular camp in a line between Chesham and Berkhempstead, and "a very extensive camp or fortified village of circular form at Cholesbury, near Tring." I have merely alluded to this very interesting paper, to show at a glance, what may be gained by a thorough investigation of our Chiltern earthworks. referring the reader to the paper itself, which will repay perusal. The neighbourhood too of High and West Wycombe would afford ample scope for antiquarian research. Who shall be able, for instance, to trace the earliest settlement on West Wycombe hill? There you have a circular fortress, enclosing the settlement or village on a most commanding position, in which the church now stands, though the village is removed into the valley below; the church, no doubt, was erected on a site dedicated from very early times to religious rites. To compare such a spot to "the high places of Baal" may appear fanciful, but there can be no question that primitive races selected the summits of hills specially as places of sanctity and worship. Passing along the Wycombe Valley from West Wycombe, you have on the hills on the right the fine circular earthwork known as "Desborough Castle;" on the left, you have another fortress known as "Castle Hill," commanding the old borough town of Chepping Wycombe; then on the right again you have well-defined circular earthworks on an elevation called "Keep Hill." Thus, in this very limited reference to the Chilterns, it will be seen how much might be taught us by unearthing the remains of bygone generations on the hills of our county.

Of all the hill forts which have attracted the

special attention of archæologists, perhaps none can compare to the fort at Cissbury, in Sussex. mentioned by Camden, in his "Britannica," and by antiquaries of note since his day; its remarkable size, the pits in the interior of the fortress, and the number of flakes found on the surface, induced General Pitt Rivers to undertake its careful exploration, the result of which is given in a paper before the Society of Antiquaries in March, 1868.* It will be interesting to make some observations on this camp, derived from the explorations to which I have alluded, because here we have very striking illustrations of the period we are considering; in fact, we have before us nothing less than the remains of an arsenal in the Stone age. Some have maintained that Cissbury was a Roman camp, but General Pitt Rivers points out that the Roman fortresses were constructed with a consideration of the "strength of the force intended to occupy them, and with a chief regard to discipline and interior economy," whereas the early races of Britain fortified the hills according to their size and outline, and with little regard to the amount of space they enclosed; to defend a camp such as Cissbury, would, according to Roman practice, require a garrison of 5000. The Romans appear to have made use of this camp in after times, but, as we shall see, it was formed ages before the Roman occupation. "The supply of water and fuel, too, were a primary requisite in the selection of a Roman camp;" but Cissbury is at a considerable distance from water, nor could fuel be obtained in its When this and like fortresses were convicinity. structed, everything else appears to have been sacrificed to the strength of a position, as a means of defence in the midst of tribal wars.

Among the evidences that this camp was the work of the later Stone age, would be a flint flake found in the excavations of the seventh pit of the encampment, showing marks of secondary chipping on the edge; fragments of pottery were also found in it. In the ninth pit were found two good specimens of the long thin celt, well chipped. The pits in all are computed to have produced 550 to 600 worked flints, all chipped, and

^{*} See "Archæologia," vol. xlii. p. 53.

no metals were discovered. The different implements are all carefully classified in the paper we are considering.

The writer asserts that "Cissbury has produced specimens of nearly every type known to have been found among flint implements, from the Drift and Cave

up to the Surface period."

In a manufactory of flint implements, such as Cissbury must have been, it needed a practised eye to distinguish the different forms into which the flints had been shaped; thus many of the flakes discovered in the pits were simply the chippings from flint core in the act of

formation into a given implement.

General Pitt Rivers ably discusses the question as to the date to be assigned to the flint forms discovered at this camp. If much that was found was rude and unfinished, as might be expected at so important a manufactory of early weapons, yet here and there were discovered finished tools, such as chipped celts, one of which is illustrated in the plate accompanying his paper; these celts show to the practised eye "as great a degree of perfection in the art of flint chipping as has ever been attained in this country." The writer at the same time lays stress on the point, that all the implements are not to be classed together, as one specimen of a tool more or less brought to completion, but that in an "arsenal" of this magnitude, the implements of prior ages may still be discovered as in use, that the continuity of form in the implements of aborigines of different countries may be considered as an universal principle, that to attribute the art of invention to uncivilized tribes would be entirely misleading, and that any change in form must be considered as resulting from the slowest transformations, extending probably over very considerable periods of time. It seems that the earlier types of implements may still be in use among savages, through habit, prejudice, or other causes, long after they have been superseded by others of more modern origin.* The armouries of modern Europe indeed would furnish us with an illustration, showing how gradual has been the change from habiliments and arms of a mediæval knight to the weapons used in recent warfare.

^{*} Ibid., p. 70.

The Cissbury camp then discloses to us in its collection of implements "every link of connection between the earlier and late types," through the labours of the discoverer, who has devoted so much attention to prehistoric archæology. Where the flints were found is discussed with much care; not, it appears, from the soil, but from the pits, which may be termed the mines from when the material came. The chipping process seems to have been completed on the spot, and the refuse was strewn on the surface; but if the weapons were polished, they must have been taken to some other factory, as no material requisite for the purpose was discovered at hand. There were signs that the pits might have been used for human habitations; this, however, must have been subsequently to their excavation for mining purposes. To obtain a complete history of this remarkable camp, so far as its present condition would allow, it appeared important to the learned discoverer to ascertain, whether the intrenchment was of the same date, or a subsequent excavation to the pits; he therefore caused a trench to be dug thirty-three long and four feet in width, in that part of the bottom of the ditch which was nearest the pits,* and on reaching the floor, lying on the chalk bottom, was discovered among twelve worked flints, "one of the best celts found at Ciss-Finding these worked implements in the position mentioned, and within the limited distance excavated, the writer considered that there was strong presumptive evidence that, as these implements were the work of the original constructors, the intrenchment belonged to the age of the flint manufacture.

We have an example here of the importance of laying open our earthwork fortifications, if we are to know something of their origin. To encourage similar operations in our own county, has been partly the reason for so lengthy a reference to the Cissbury camp; but the most superficial survey of the Stone age in this country could scarcely fail to mark out a spot so singularly interesting and instructive. The fact of the non-existence of polished celts at Cissbury, may raise a doubt as to the camp being Neolithic; but the associated fauna, the remains of which

^{*} Ibid., p. 74.

were discovered, and particularized by General Pitt Rivers in his paper, are the strongest evidence of the age of the

camp itself.

A similar flint manufactory was explored by the Rev. W. Greenwell, at Grimes Graves near Brandon; it is thus described:—"In a wood, at this spot, the whole surface of the ground is studded with shallow bowl-shaped depressions from 20 to 60 feet in diameter; . . . they are over 250 in number, and one selected for exploration was about 28 feet in diameter at the mouth, gradually narrowing to 12 feet at the bottom, which proved to be 39 feet below the surface."*

How the mining operations were carried on, is also described; the excavations themselves were made by means of picks formed from the antlers of the red deer,

of which about eighty were found.

A still larger manufactory than that at Cissbury or Grimes Graves, was at Spiennes near Mons in Belgium; an account of these subterranean works is referred to in Dr. Evans's work.†

I have referred to two of these manufactories in England and one on the Continent, and there have been others also discovered, showing "an organized manufactory of flint instruments by settled occupants of the different

spots."‡

Space will not allow me to do more in the compass of this paper than to devote a few more observations on the Neolithic age. I purpose therefore to continue my remarks on the implements of this period. The subject is one of great interest, because I shall be able to show, that the construction of the implement itself, often discloses the age when the instrument was made, and how its antiquity compares with instruments made for similar purposes, but of different design.

It is quite impossible to fix a date, when the polished stone implement was first introduced into Britain, and to measure the distance between the time when the implements were chipped only, and found in the river gravels, and the introduction of those of more finished workman-

^{*} Evans's "Ancient Stone Implements," p. 30.

[†] Rapport sur les découvertes "Géologiques et Archéologiques faites à Spiennes en 1867." Mons : 1868. ‡ Evans's "Ancient Stone Implements," p. 32.

ship. But though the antiquity of these later implements is clouded in obscurity, there are data to go upon, which may enlighten us as to when they fell into disuse. One of our highest authorities on this subject, Dr. John Evans, informs us, that it may be safely said, that "the use of bronze must have been known in this country 500 or 600 years B.C., and, therefore, that at that time cutting tools of stone began to be superseded, while by A.D. 1100 it will be agreed on all hands that they were no longer in use. We can therefore fix the date of their desuetude within, at the outside, 2000 years; but who can tell within any such limits the time when a people acquainted with the use of polished stone implements first settled in this island, or when the process of grinding them may have

been first developed among native tribes?"*

Let us consider the use to which celts were applied; sometimes they were used as axes or hatchets, and sometimes as adzes; some were most probably used in the hand without any handle, or else were mounted in short handles, and used after the manner of chisels or knives.+ But the secret of much that we may learn of the date of an implement will be in the design of its handle; it may be safely laid down, that with an axe in its earlier form, the object, whether stone or bronze, was fitted into the wooden handle, whilst, with the later implement, the handle fitted into the object. The axe was introduced in the Neolithic age, it was the instrument that of all others changed the feature of nature; by it man cleared the primeval forest, and opened out the land for tillage; by it he was enabled to shape wood and other materials for the various purposes of a higher culture. To the axe, therefore, we are indebted for a very marked advance in civilization and human progress; and though the stone axe must have been a very inferior implement to the bronze or iron axe, yet its invention was of the highest importance. The improvements in the hafting the axe is more the subject of the Bronze age, the period upon which I hope on some future occasion to contribute a paper to these Records.

Few examples have been preserved of implements still attached to their handles; Dr. John Evans gives

^{*} Ibid., p. 133.

three;* one that was found in the Solway Moss near Longtown, now in the British Museum; and another of a celt found near Tranmere, Cheshire, now in the Mayer Museum at Liverpool; and a third found in peat, which once formed the bed of a tarn in Cumberland. The same authority also gives an illustration of a celt in its handle from a drawing in the Museum of the Royal Irish Academy,† found in the county of Monaghan, and he mentions that some of the hatchets from the Swiss Lake

dwellings were hafted in a similar manner.

A specimen of one of these axes, which was found at Concise in the Lake of Neuchâtel, is given: the stone was first bedded in a socket of stagshorn, for the purpose, it is supposed, of avoiding the splitting the handle, the end of which was "worked into a square form, but slightly tapering, and with a shoulder all round to prevent its being driven into the wood." As an example that with uncivilized tribes of modern times the object may still be seen fitted into the handle, Dr. Evans gives an illustration of a club procured from the Indians of the Rio Frio, a tributary of the Rio Nueces in Texas; he thus describes it: "The blade is of trachyte entirely unground, and most rudely chipped. The club-like haft is formed of some endogenous wood, and has evidently been chopped into shape by means of stone tools."

There can be no question that the earliest mode of hafting rendered the handles extremely liable to split, but in addition to the firm wedging of the object into the handle, it most often would have been secured by strong bands, sometimes composed of sinewy thongs, sometimes of withies twisted round, and doubtless, as with the axes of modern savages, artistically interlaced.

The handle of the polished celt, or axe used by prehistoric man, seems to have been of much the same fashion over the world, for in reference to the copper and bronze axes of the Mexicans, they are thus described: "They are like those of modern times, except that we put the handle in an eye of the axe, while they put the axe in an eye of the handle." ‡

^{*} Evans's "Ancient Stone Implements," p. 157.

[†] Wilde's "Cat. Mus. R. I. A.," p. 46. ‡ Quoted in "Anc. Mon. of Miss. Valley," p. 198.

I have thus considered the construction of the axe, because, as I before remarked, it was an important implement in the Neolithic age, and its use had the effect of literally clearing the way for human progress; but for an exhaustive treatise on the subject of this implement, and indeed of all ancient stone implements, I must refer my reader to Dr. Evans's work on the subject, to

which I am greatly indebted.

Besides the clearing the forests, the stone celt was used, as we have seen, for mining purposes; the flints necessary for forming implements were thus excavated from the chalk deposits. The celt, too, might have shaped the timber for the rude huts, and scooped the massive forest trunks into canoes for the inland waters; it would be useful for splitting the fire-wood, it could be brought into service for many domestic purposes, and in time of war it doubless was a weapon wielded with deadly

effect in the conflicts between savage tribes.

Though the axe was one of the most familiar of implements in the Stone age, there were others which were in constant use. The scraper, for example was one of these implements; it was needed for dressing and scraping the hides, which furnished man's clothing, afforded the covering of his tent, and rendered life endurable in the long wintery season of these Northern Islands. But I cannot close my paper without some allusion to the flint arrow-head. Its universal use in the chase, or in time of war for ages in the remote past, makes this weapon an object of peculiar interest. A recent writer on Mexico, in treating of its early inhabitants, and in describing its archæologicul remains, speaks of the flint and stone arrow-heads discovered there, and in various parts of the United States, as of about the same character as those to be found all over the world.* In this country, on the Yorkshire Wolds, the Derbyshire Moors, and in parts of Suffolk, these flint arrow-heads have been found in abundance; a greater number, however, have been found in the northern parts of Ireland, than in any other portions of these Islands, since possibly these kinds of weapons were there in use, till a later period, than elsewhere.

^{* &}quot;Mexico, To-day," by T. U. Brocklehuret, p. 170.

It is a singular fact that while flint arrows are thus frequently discovered in this county, bronze arrow-heads are extremely rare. Many instances might be given of the finding of these flint implements in true association with weapons of bronze. The well-known antiquary, Sir R. Colt Hoare, gives several examples in point in his examination of the barrows of South Wilts; and Dr. John Evans, remarking that "while we know, from interments, that flint arrow-heads were in common use by those who employed bronze for other weapons or implements," * draws the conclusion, that flint for arrow-heads was used long into the Bronze age.

Beyond this age, however, the use of flint for these purposes does not appear to reach, as there is no evidence of flint arrow-heads having been discovered in association with iron weapons. Of course, I should remark, there may be found the implements of the Stone age, in a barrow that may have been used for a second interment in the Iron age.

The barrow, like the cave, is a marvellous repository, whence may be learnt out stages of and advances in civilized life, and to gain a thorough knowledge of what it may teach, we must follow in the steps of such patient archæologists as the Rev. W. Greenwell, F.S.A., whose name is so intimately associated with discoveries from early interments, especially from those on the Yorkshire Wolds. Thus, from the barrow we learn that the flint arrow was used, both when cremation and inhumation were practised, when the potter's art was known, and from the Neolithic period, as we have seen, far into the Bronze age. It seems that the arrow was a weapon of still remoter times than those we are now considering, for the arrow-head has been discovered in some of the cave deposits of the Reindeer period in the South of France.

The classification of arrow-heads should properly follow upon the foregoing remarks; but here again I would refer the reader to Dr. John Evans's thorough exposition, under this head, of the many and varied chiests which have not been discovered.

objects which have yet been discovered.

The art of pottery was known in Britain in the Neolithic age; the discoveries which have been made show that the vessels were rudely formed by hand, and

^{* &}quot;Ancient Stone Implements," p. 328.

their colour is brown or black. Professor Boyd Dawkins says that they "have very generally rounded bottoms, not, it appears, to stand on tables, but in hollows, and that sometimes they are ornamented with patterns in

light lines or in dots."

Through the courtesy of Mr. James Rutland, the Secretary of the Berks Archæological Society, I am enabled to give a few evidences of the existence of Palæolithic and Neolithic man in Buckinghamshire, or on its borders. Mr. Rutland informs me that in 1881, at Taplow, he found one Palæolithic scraper in the gravel pit in "Wittage," on the uppermost platform of the Thames Valley," being a post glacial drift, about 100 feet above the river. In 1882, he found one other Palæolithic scraper in the low level drift in "Windmill" field at Hitcham, and that another pear-shaped scraper has recently been found in the same drift, and which is now in the Reading Museum. In this low level drift, Mr. Rutland says, that there are many interesting animal remains, as of the Elephas primigenius, Bos primigenius, Equus fossilis, and rhinoceros. With reference to Neolithic man, Mr. Rutland informs me, that he possesses the following relics: One very finely chipped flint celt, nine inches in length and three inches in breadth, also two polished flint celts found in "Windmill Field," Hitcham; also a polished flint celt, broken and re-chipped, found at "Monkey Island," on the Thames; also a chipped flint celt from the Thames at "Braypoint;" a polished quartzite axe, 7 by 3, found in the Thames at Maidenhead Bridge, in 1882; a polished green stone celt or hatchet, $6\frac{1}{2}$ by $3\frac{1}{4}$, found in the Thames at Taplow Mills, 1883; a hammer formed of the antler of the Irish elk, found in the Thames at "Monkey Island;" a flint javelin head, found in "Roques Piece," Taplow; also several small flakes found in "Taplow Wood," the old Taplow churchyard,* Taplow Court Gardens, and other neigh-

^{*} Since this paper was written, it will be interesting to note that a barrow in this churchyard has been opened, the opening resulting in the disclosure of the burial of some very distinguished personage of the early Saxon period. The remarkable relics taken from it are fully described by the Rev. B. Burgess, in an article in this number entitled, "Opening of a Tumulus at Taplow." It is worthy of observation, that among the débris forming the mound, traces at this spot of the earlier occupation of man have been discovered, through the flint implements, which are here abundant.

In association with these discoveries, bouring spots. Mr. Rutland refers me to the Geological Society's Journal, Vol. xii. p. 124, in which Professor Owen describes the skull of the Musk Buffalo (Bubalus moschatus) found in the low level gravel at Taplow, by the Rev. C. Kingsley and Sir John Lubbock. Dr. John Evans, in his work on "Stone Implements," mentions his finding in 1866 an arrow-head "on the surface of a field at the foot of the chalk escarpment, between Eddlesborough and Tring;" he gives an engraving of this arrow-head, and remarks of it, that "it can hardly be regarded as unfinished, though one of the surfaces is very rough, and the outline far from symmetrical. It shows rather how rude were some of the appliances of our savage predecessors in Britain." *

Dr. Evans also refers to Pulpit Wood, near Prince's Risborough, as an encampment or settlement, where flint flakes occur in numbers; and mentions that he has specimens of scrapers from an ancient encampment known

as Pulpit Wood, near Wendover.

The Neolithic were a Non Ayrian race, short in stature and with long heads, and are identified with the ancient Iberians of history.† It appears that these short dark people had their origin in Central Asia, and that they migrated into Europe, and settled in Gaul, Spain, and Britain, and left an impress in these countries of an early civilization. It is supposed that the Basques descended from this race, and that the British tribes which were ultimately pushed into Wales, were a mixture of the Non Ayrian or Iberic race, and the later race, known as Celtic Ayrian; from these two races the Welshman of the present day is believed to owe his origin.

It is conjectured that the Neolithic race were so far distinct from the Cave men, that they did not owe their civilization to the latter, but that the Non Ayrian civilization gradually spread over Europe, how far back in the prehistoric period it is hard to say, that it was then followed in the Western Countries by the civilization of the Celtic or Ayrian race; and it is with a degree of certainty believed, that, amid all the chequered events in the history of Man in Europe, the advance in culture, and then its rude interruption, through the incursions

^{* &}quot;Ancient Stone Implements," p. 342. † "Early Man in Britain," p. 315.

from age to age of untutored hordes, pressing on into the richer heritage of peaceful tribes, the civilization thus introduced into Europe in the remote past never actually died out, but was kept alive, and handed down, as a priceless gift to the foremost nations of historic times.