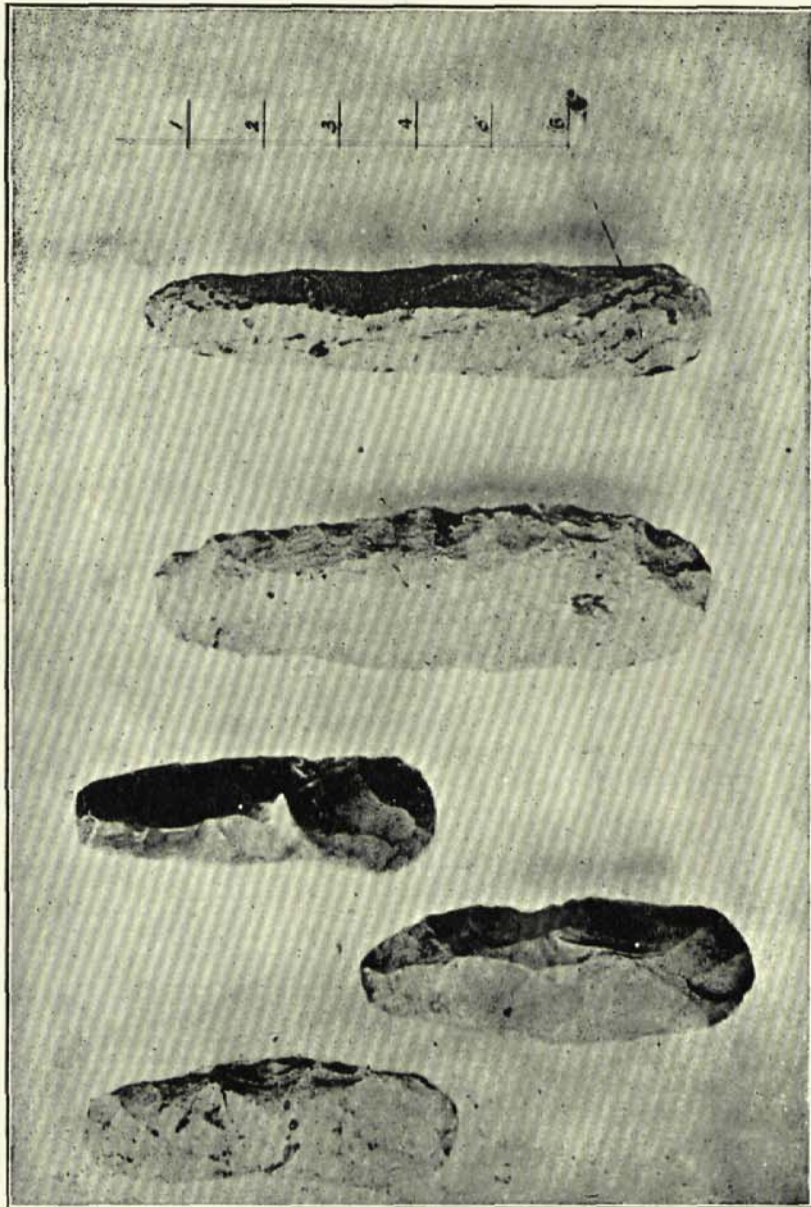


HAMPSHIRE FLINTS.
DEMARCATIION OF THE STONE AGES.

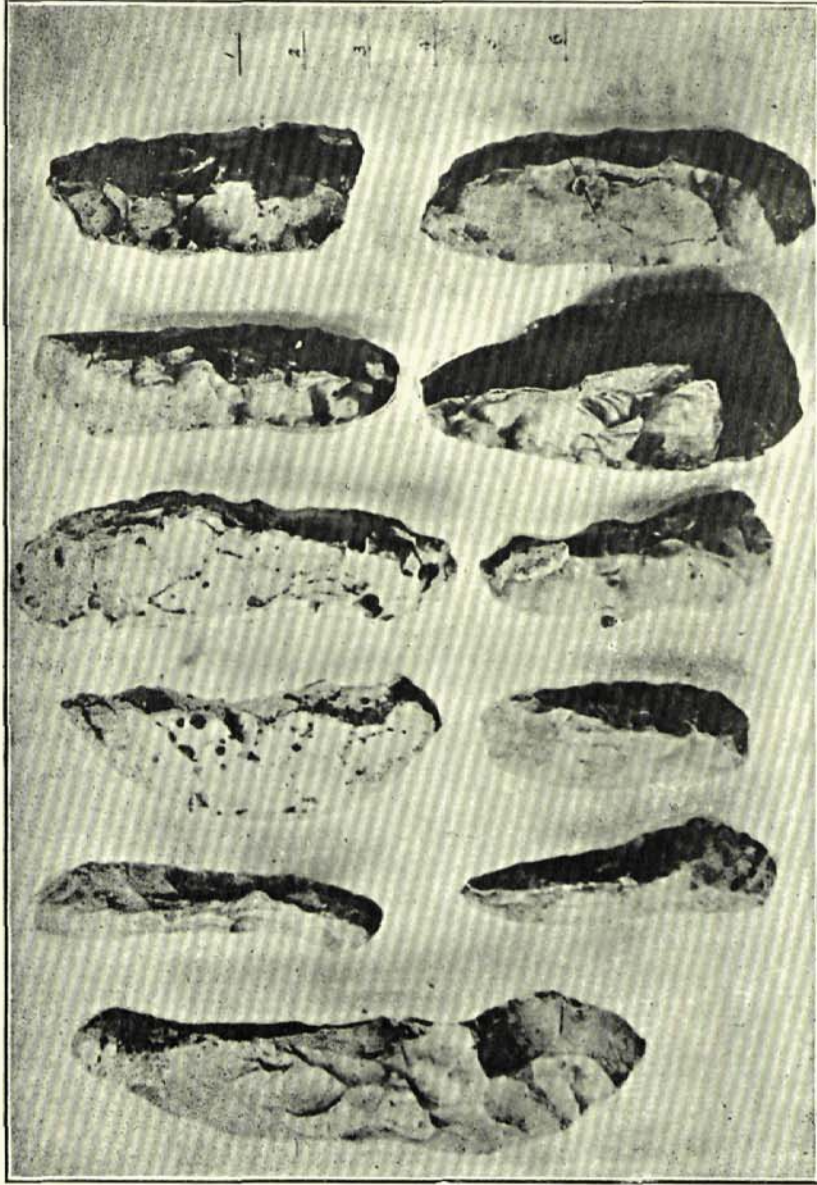
BY W. DALE, F.S.A., F.G.S.

(Read before the Anthropological Section of the British Association for the advancement of Science, at Birmingham, September 12th, 1913.)

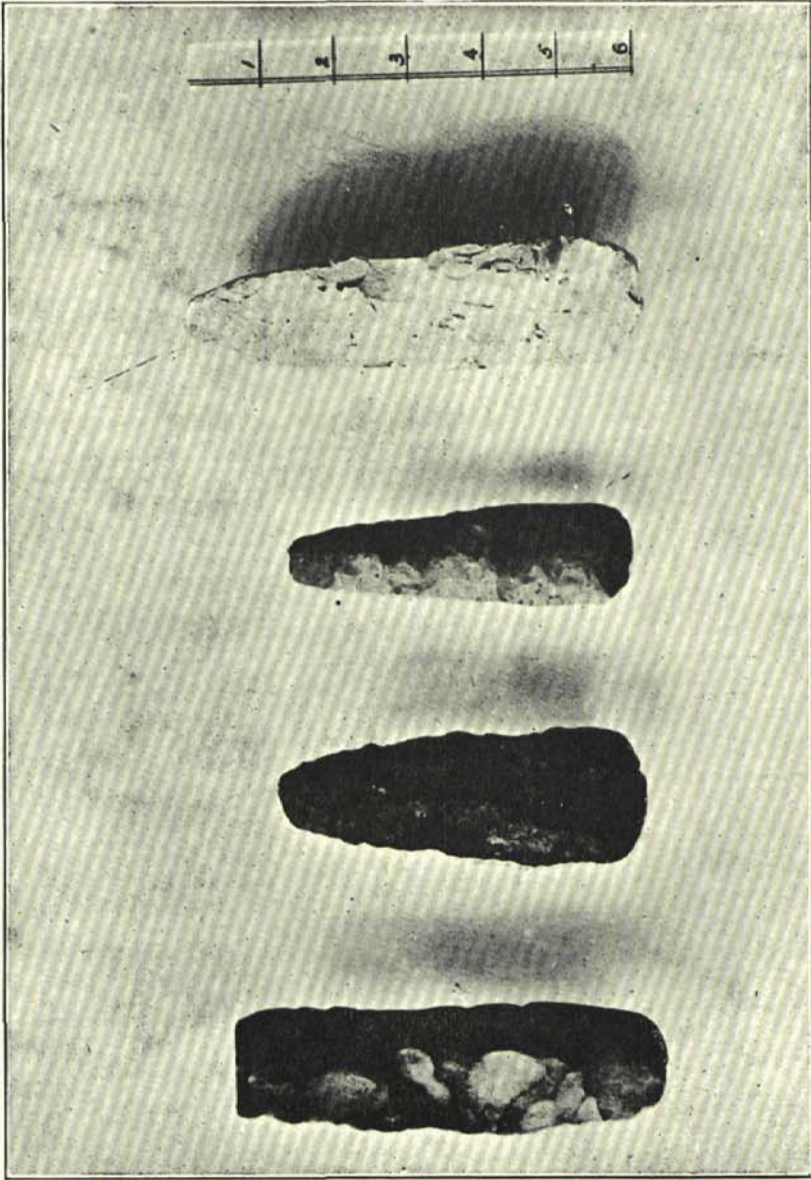
It is not my intention to follow closely the arguments of those archæologists who have now relegated to the late Paleolithic period flint implements which have always been known as Neolithic. I wish, however, to call attention to the theories of these authorities and to show in illustration a series of flint celts from the surface of the County of Hampshire which are of the same character and form as those implements which are now referred to an older period than they once were. So I hope to raise a healthy discussion upon a subject which is now much to the front and occupying the attention of many of our leading scientists. I also wish to suggest—quite tentatively—a system of the evolution of the celt as illustrated by the specimens shown. The present position of the knowledge of most of us is briefly this: The two well-known divisions of the Age of Stone, the Older and the Newer, are marked off sharply by a dividing line, and between the two is a wide gap, the existence of which is thought to be proved, not only by a difference in human culture, but physically by a geological break and by a difference in the associated fauna. In Paleolithic times the level of the country was higher, the distribution of land and water somewhat different; pluvial or sub-glacial conditions prevailed, certainly during part of the time. Big mammalia, long since extinct, were man's contemporaries; the art of polishing stone was unknown.



CELTS OF "CISSBURY" TYPE FROM HAMPSHIRE.



CELTS OF "CISSBURY" TYPE FROM HAMPSHIRE.



CELTS WITH POINTS ONLY GROUND FROM HAMPSHIRE.

But the coming of the Neolithic age is supposed to have brought in different conditions. The features of our land surfaces and coasts were in Neolithic times much what they are to-day. The big mammalia had disappeared. Man now kept domestic animals, cultivated the ground, cared for his dead, and knew some of the useful arts. Moreover he had learned to sharpen his stone implements by rubbing and polishing. We have also been taught that Paleolithic implements are confined to those gravel beds, which were laid down by our river systems, and that all the implements found in the surface soil from a depth of one or two feet are Neolithic, including all the varieties of the celt, whether chipped or polished, as well as flakes, scrapers, and arrow heads. The only exceptions to this generalisation are the relics found in caves and rock shelters, most of which have always been regarded as late Paleolithic. Much of this we are now asked to unlearn. We are told that human progress has not been seriously interrupted since man first began to chip flint. The great lapse of time that separates us from the beginning of things is not questioned; nor is it denied that early prehistoric man was surrounded by different conditions and a different fauna from his later descendants. But the long cherished hiatus which separated Paleolithic and Neolithic man is demolished. Led by Continental archæologists, we are asked to recognise in implements of particular form the relative ages of the deposits in which they occur and to mark them off as stages of human progress without any break or lack of continuity. Implements which a few years ago were unhesitatingly called Neolithic are now shown to be identical with those of Paleolithic date, and it is even hinted in some quarters that the art of polishing stone was not unknown to the men of the older Stone Age. Mining in the chalk for the purpose of extracting the flints is also recognised as known in the earlier age, and the so-called domestic animals are said to have been contemporaneous with species now extinct. The domestic breeds which are supposed to have come in during the mythical hiatus, or immediately after, existed, we are informed, during the late Paleolithic age in Europe. The

most able exponent of these advanced views is Mr. Reginald Smith, F.S.A., of the British Museum, and the long Paper published by him in *Archæologia*, on the Age of the Flint Mines of Grimes' graves, and Cissbury, may be characterised as epoch-making. In this Paper the whole question is argued with much care, and it is probably known to most of you. Beginning with the statement that the Aurignac stage of culture is now formally recognised, the author describes the forms of the implements which belong to that period, and then proceeds to show that parallels may be found in these English deposits which are under consideration, which hitherto have been called Neolithic. Rather than troubling you with details I am showing you the slides which Mr. Reginald Smith used when reading his Paper, which he has kindly lent me, and I supplement them with slides of my own in which are shown a series of so-called chipped celts and other implements from the surface soil of Hampshire. It naturally follows that if the so-called Cissbury type is Paleolithic much of what we find in the surface soil everywhere is also to be referred to that period, and the two Ages of Stone melt as insensibly into each other as the Age of Bronze melted into the Age of Iron. Many of us as yet are not ready to accept all these conclusions, and await further proof. The most conservative of us must, however, admit that a good *prima facie* case has been made out. Personally, also, I find these views a welcome explanation of the many flints which came from the surface which show strong affinity to Paleolithic forms, although very different in patination from those out of the gravel. Several of these I have laid on the table. In attempting to trace an evolution in the form of the celt, we naturally put first the implements which are only chipped. Whether the roughly chipped ones are earlier than those more finely worked is doubtful, as among the better worked implements are many which by their form have been assigned to the Aurignac period. Their variety is endless, and in taking the slide of the Cissbury celts now in the British Museum, I have had no difficulty in making up a slide of almost identical specimens from places scattered all over one

English county. It is fairly certain that the first attempts at polishing and grinding were confined to the cutting end of the tool, and so we get another step forward. The celts so sharpened at the end do not differ much in form, and many would pass as Cissbury types if not rubbed. Finally, we get the well-known polished celt, all the surface of which is ground, and which we are bound to believe is the last development of the tool. If we are to be allowed to retain the word Neolithic at all, I suppose it must be confined to the age of the polished celt and the perfectly-shaped arrow-head. I have said this evolution is but tentative, and am aware there is much room for difference of opinion. I can show by actual specimens that polished celts were sometimes sharpened by chipping, and one very fine specimen of a chipped celt found at the top of a gravel bed is so exactly of the proportion of a polished one that I regarded it at first as one arrested in the process of manufacture, that is chipped ready for polishing. I should like, in closing, to refer to the discovery lately made by Dr. Peake at Peppard Common, near Henley-on-Thames. This formed the subject of a Paper before the Royal Archæological Institute, and just published in their Proceedings. As the discovery bears upon the subject under consideration, I asked Dr. Peake to lend me, for your inspection, some of his flints, in which I thought this Section would be interested, and I will describe in a few words the manner of their occurrence. The site of this remarkable discovery is on the sides of one of the dry valleys of the chalk on the Chiltern Hills. Dr. Peake's attention was called to it by the occurrence of saucer-like depressions in the grass, and on digging he found large quantities of roughly-chipped flints suggesting a flint factory. Two different sites were excavated by him, and an enormous quantity of flakes, cones, and wasters turned out, with some finished implements. Not only was it evident that here was a workshop, but the excavations proved that the chalk had been dug into for the purpose of extracting the flints as at Grimes' graves and Cissbury. As to the character of the flints, the types are, as you will see, generally speaking, those of the last-named localities,

and bearing also a striking resemblance to those from Aurignac sites, may be referred to the same period. A few years ago the site would have been called a Neolithic flint factory, but in the light of recent conclusions it is now considered to belong to the Paleolithic age. As in the case with the Cissbury implements, it is not difficult to show from other localities implements from the surface like those of Peppard Common.
