

attributed the mandible to an adult chimpanzee. As, however, the process is missing by which the mandible articulates with the skull, there is considerable room for doubt.

Whatever disputes might arise over these ancient relics, it was fairly definitely proved that at a much more remote age than people had thought, a human being of a comparatively high level of intelligence was living in Britain.

Civilisations of the Stone Age.

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This paper is mainly concerned with the Art of the Stone Age, though reference will have to be made from time to time to the various types of stone and bone implements that are characteristic of the various epochs into which man's early history can be divided.

Geology has divided the world's history in five volumes and an introduction namely :—

- Recent—fifth volume.
- Quaternary—fourth volume.
- Tertiary—third volume.
- Mesozoic—second volume.
- Palæozoic—first volume.
- Pre-Cambrian—Introduction.

History begins with the fifth, while, if the so called eoliths are really man-made tools, Humanity began in the third volume. This paper is mainly concerned with the later chapters of volume four (quaternary times), and covers a period of time that may run from somewhere about 10,000 B.C.—20,000 B.C. This period therefore ends some 5,000 years earlier than the first historical records of the Mediterranean basin. This fourth volume of the world's history (quaternary times) is sub-divided geologically into chapters by the various cold and warm phases of the great ice age, while it is sub-divided archæologically into various periods that correspond to the various civilisations that flourished at

different times in Western Europe. In the last interglacial phase we find the so called lower palæolithic civilisation, and after the last glaciation the, so called, upper palæolithic. When the places where these folk lived (i.e., underneath overhanging rocks on the sunny side of valleys, etc.) are dug up, we find a series of deposits, resting one above the other. The lower layers are obviously older than those above. This gives us a succession of layers, and therefore of the contents of the layers (i.e., bones of extinct animals, etc., stone and bone implements, etc.) in time, and we can thereby trace out the evolution of these civilisations. Certain implements are, for example, always found to be present in certain layers and not in others. These implements are therefore characteristic of certain civilisations.

The fifth volume (recent) is divided archæologically into the Iron and Bronze Ages. In the earlier fourth volume man knew nothing about the use of metal, and only had implements made of stone, bone, and probably wood.

Just after the last (4th) glacial phase of quaternary times, a race of men arrived in Europe from Africa(?) These are called Aurignacian. They brought with them a love of art, both in the way of sculpture, of engraving and of painting. Some of the drawings are done on bone or stone and are actually found in the deposits (i.e., in the homes) of early man (Art Mobilier) ; others are found drawn on the walls of deep natural caves. These latter were probably done as a kind of sympathetic magic to help catch the various animals that man required for food. Sometimes arrows are depicted in the sides of the beasts drawn. These cave drawings and paintings are of great beauty and extremely naturalistic. Such details as the cloven hoof of the bison, etc., are faithfully rendered. Sometimes we find the human hand figured ; once with indications that some of the joints of the fingers had been cut off. There are modern analogies for all this among primitive folk of to-day. Usually left hands are figured, and as the colour had to be applied to the wall of the cave with the other hand (thus leaving an uncoloured silhouette of the first hand on the cave wall) there is indication that, even then, man was, as a rule, right handed. Right at the end of the fourth volume, when the climate had become more genial, our own ancestors arrived in Western Europe from the East.

They practised agriculture, domestication of animals, and the manufacture of pottery—three things unknown to the earlier folk. They also soon learnt the use of metal, and so we pass on into the Bronze division of volume five.

They had an art of their own, but far inferior and much more conventionalised than the earlier manifestation. Perhaps this was because it was not used for the same kind of magical purpose. A study of these conventionalised pictures may, however, give us an idea of the development of real writing!

The relation of man to the glacial periods in England is still a matter of controversy, though it will probably be found to fall into line with the results obtained abroad. Perhaps, too, someone will discover examples of the cave art in England.

Both these points should be of interest to our Society, and it is quite possible that a further investigation in the Wye valley may throw some light upon these questions.
