

SESSIONAL MEETINGS—Abstract of Papers.

Classification of Stone Implements.

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Owing to the extent of the subject, many interesting aspects (such as the geological and artistic) will have to be omitted from the present paper, which will deal with classification based on the style of workmanship. The two problems involved are:—

1. The identification of the "humanity" of flints.
2. The approximate date of these implements.

99 per cent of the authorities usually agree upon the evidence of human work upon flints, but there is a large group of implements, the Eoliths, which many still believe to be the work of nature rather than of man.

The dating of flints implies a classification. As representatives of all ages are found on the surface, the only safe guide is the style and development in the workmanship. The changes of style require considerable experience in order to distinguish the slight differences marking the different epochs.

Style has always been an indication of dates, and can be in part explained: e.g., the sword, which was introduced about 1000 B.C., continues to the present day, yet the sword of one century can be easily distinguished from that of another. Similarly with brooches, helmets, and so on.

The five main divisions of tools are for the following purposes—

- (1) Hammering.
- (2) Cutting.
- (3) Scraping (side-scraper or French ractoir).
- (4) Planing (end-scraper or French grattoir).
- (5) Piercing.

The development in style in any particular implement can be seen from the types in different undisturbed levels of occupation in which the implement may be found. It is important to note that any one layer may disclose an earlier type than the majority, but not a later type. The chief layers of the later paleolithic period are four in number—(1) the upper cave implements repre-

sented by long blades, minute flakes, and borers, which are usually associated with worked bone and horn implements (La Madeleine) ; arrow-heads with a shoulder on one side and lozenge or leaf-shaped blades finely chipped (Solutré) ; planing tools with steep sides (Aurignac) ; and scrapers made of flakes worked on one face, etc. (Le Moustier).

(2) The middle period, typified by the river drift and gravels, yields such implements as finely flaked and often "twisted" flints ; hand-axes often pear-shaped or oval (*coups-de-poing*), and nodules flaked at the point.

(3) The lowest layer (pre-glacial) contains specimens of widely different dates, as eoliths and rostro-carinates.

These are the main divisions of the Early Stone Age. The late transition period (Mas d'Azil) is typified by small points with battered backs, leading up to the pygmy industry. Following these, the neolithic period is notable for the change in the "business end" of the principal implement, the butt becoming the cutting edge and the point being inserted in a handle. The rough chipped surface was largely replaced during this period by polishing or grinding. These implements, designed for hafting, reach their zenith in the megalithic period (the last phase of the neolithic), after which they are imitated in copper, bronze and iron in succession, during the ages named after these metals.
