

When might extend
over one of the
surfaces



**ASSIGN
BUSTER**

When the reverse is the case, that is when the piece of stone merely acts as a core of producing flakes and these flakes are further shaped then the shaped pieces are called the tools while the core is a waste.

(a) Chopper:

These are core tools prepared by unidirectional flaking of the terminal end. In some rare cases, the flaking might extend over one of the surfaces but do not include the butt-end which is as a rule kept untouched.

A chopper cup has a U-shape or even circular appearance and hence the working end can range from a straight and transverse border to almost a semicircular border. If the two terminals of the working border are joined by a straight line the maximum thickness of a chopper usually falls posterior to this line (towards the butt-end). If, however, the maximum thickness lies anterior to this line it is advisable to consider such a specimen as a flake core.

(b) Chopping Tool:

It is merely a variation of the chopper with the only exception that here the flaking is done from both the surfaces. That is the terminal flaking is alternately removed by altering the surface facing the worker. As a result of this the working end of chopping tools is jagged or wavy as contrast to the sharp border of a chopper. Here also the shift of the maximum thickness towards the working border can be taken to include them as flake, cores. Both Chopper and Chopping tools are usually prepared by primary flaking alone.

These are delivered by stone hammer with a swinging blow or using block-on-block technique. In some special cases some secondary flaking may also be present. But if over and above primary and secondary flaking there is evidence of contiguous retouching along the border these should be considered as Core Scrapers. 2. Biface: The tools which are retouched on both the faces are known as biface:

(a) Hand axe:

It is perhaps one of the earliest tool types identified in prehistory.

The main distinguishing feature of this type is that it is extensively retouched on both the faces and hence the name Bifacial is also used for this type. It distinguishes itself from other Biffa implements in the fact that with a few exceptions (e. g. Ovate) it has a thicker and broad end called the butt end and opposite this occurs the narrower and thinner end called working end, and the two surfaces and the lateral borders are so flaked as to meet at the working end. By implication bifacial is a core tool, but if all these characters of a bifacial are: satisfied in a given specimen and over and above this a small portion of the scar of detach me with its positive bulb of percussion is retained then such a specimen can be easily designate with a prefix qualifying the difference. That is this specimen should be called a flake-hand

On the basis of their shapes the hand axes can be classified into a dozen varieties. For instant the elongated types of hand axes include Lance late, Micoquian and Micron. The midi size squat group includes Triangular, Sub-triangular and Cord form.

Similarly, ovoid grow with rounded working end includes Amygdaloidal, Ovoid and Limned. Besides these, they are some other types also identified but these are more or less area specific. Technologic and hence culturally these groups are not always associated.

For instance, a lower Achill" or Abbevillian hand axe can be Lance late or Micron but seldom a Cord form. Similarly, upper Acheulian can be Micoquian or Cord form or Limned without any regard to t size. It is therefore, important to remember that these categories are morphological some technological rider alone and it is not safe to consider any of these types as specific if a cultural stage.

It may be, therefore, worthwhile to attempt at some cultural terms for hand axe. (i) Abbevillian Hand axe: These are the largest of all hand axes known in prehistory and often weigh as much as 2-4 lbs. Although bifacial worked, these hand axes have scoop deep scars which give rise to very sinuous lateral borders. There is rarely any secondary flaking done along the borders. Usually, these specimens are not quite symmetrical. (ii) Acheulian Hand axe: These are smaller and more symmetrical in their dorsoventral wonton there are numerous secondary retouching done and these are mainly concentrated around the lateral borders. Around middle Acheulian period cylinder hammer technique profusely used to execute the final shaping.

In many upper hand axes the shard lateral border continues over the butt-end as well. A special shape of these hand axes vote which may have a twisted S or Z shaped lateral border.

(b) Cleaver:

It is ordinarily a hand axe with a transverse working end. This transverse edge can be obtained by retouching from both the surfaces and also by skillfully designing the intersection of a sloping flat scar with another similar scar or a retouched or original sulfa on the opposite face.

The most common cleavers which come from Africa and India are made on thick medium sized flakes where the ventral surface has a single flake scaly detachment and the dorsal surface has a sloping scar towards the anterior end. Extend flaking along both the lateral borders and the butt-end attempt to drive a suitable shaft. Since this flaking is alternately done, the tool has a characteristic parallelogram cross-section. According to the shape of the butt end, cleavers can be classified as either U or V shaped. The working end, likewise, can be classified as transverse, left oblique, right-oblique or divergent according to the position and nature of the bit.