

These flake from a
pebble one has to



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These flakes are known from all over Europe during various stages of Paleolithic these are essentially typified by a characteristic high flake angle and a general absence of retouching on them. It is a common experience that to detach a flake from a pebble one has to strike a blow in a manner. The angle of this direction of force with the pebble surface is, therefore, always than 90° for obtaining a good sized flake. For removing a second flake from the same surface requires increasing the angle of the blow. If this process is repeated a stage comes when the delivered is at right angles—and the core in this case, shatters in several pieces instead of a flake. Hence this is known as the critical angle of percussion.

The Claytonia technique this limitation of simple percussion technique. Here once a flake is removed from one this flaked surface is used as the striking platform to remove another fresh flake from the surface. As a result the flake angle of each Claytonia flake comes out as more than 90° .

2. Levallois Technique: This technique is named after a site of this name in the suburb of Paris. It involves taking out of a leer off flakes from one face of a nodule from all around its periphery in a centripetal manner first step. This prepared core resembles a tortoise shell and therefore, is usually referred to as tortoise core. Finally, a calculated blow is delivered on the top of the shaped surface in such a manner that a flake comes out of this core. The detached flake carries the previous dressing on its ill surface. It is therefore, taken to be a technique where a previous planning and shaping of a tube detached is perfected. In other words this marks a technological development in prehistoric use which needs to be counted in the assessment of the characteristics of a given industry or culture.

For long it has been emphasized that the diagnostic trait for the identification of a levallois is the occurrence of a faceted butt. In reality, there are many normal flakes known with butts and also numerous levallois flake known without any kind of faceting present at their but ends. The only feature which goes to define is flake is the occurrence of centrally flake scars on its dorsal surface. Many or some of these dorsal surface flake scars do not bear points of impact on this flake (that is, the flake detached cuts a portion of the previous dressing from the tortoise core. Thus most of the points of impact of these scars are retained on the core while the flake detached maintains only the distal ends of these scars).

Besides this, the butt flake is rarely known to have formed an angle of more than 90° with the axis of a scar. Technique can be modified by choosing and shaping special cores and thus points and blades. 3. Pecking: A stone axe in the Neolithic period is prepared by taking a normal chunk out of a special rock and then flaking it with stone hammer to obtain the shape that has been planned. Often the original surfaces of the core are used to advantage in order to decide the shape. The nature of the stone is such that unlike the result of stone hammer technique on quartzite the flaking removes only small and shallow flakes. Once the shape is achieved the intersection of all the scars or any other generalized undulations left on the surface is carefully knocked off with a pointed hammer.

This process is called pecking. 4. Polishing and Grinding: To suit a function Stone Age implements have all along been flaked and retouched in various techniques. In the last of the stone ages, i. e. in Neolithic period an

altogether different finishing technique is evolved. This is clearly demonstrative of an altogether new functional adaptation.

All available evidences indicate: that man had just evolved an agricultural economy and he had to clear a great deal of bushes and trees to obtain open cultivation land. The new techniques of grinding and polishing may have been result of this imperative. We have already discussed about pecking. When the process of pecking is completed, the finished tool is rubbed over a rough stone surface with water thrown in.

Usually, the working border is ground but in many cases the entire body of the tool can also be ground. Many authorities believe that some kind of fat may have been used during the final rubbing stage in order to give a polish to the finished type and hence the name grinding and polishing. Many Neolithic occupations ha yielded large concave sand stone slabs with marks of deep grooves along the length. These fins further demonstrate the manner of execution of this technique. Using fat to polish, however, see very unlikely because rubbing is not effective with a film of fat which lessens friction.

It is therefore quite likely that the actual technique consists of flaking, pecking and grinding only. The unusual polish seen in some Neolithic axes may have been developed by prolonged use of these axes. 5. Raw Materials of the Neolithic Tools: To suit the Neolithic change in the purpose and hence technique, the raw material of the tools is also changed. Quartzite or flint is no longer found suitable.

A much finer grained and harder igneous rock such as dyke basalt, dolerite and epidiorite become the most commonly favored raw material. It would appear quite evident that the Neolithic people not only had gathered wide practical knowledge about various rocks and their properties but had skillfully quarried two or three different varieties of rocks to shape different tools. That is while chalcedony continued to be used to prepare microliths (to be used as composite tools) dolerite was mined out specially to prepare the heavy axes. Quartzite is also continued to be used but now mainly for making ring stones or bolas. There are many Neolithic sites where all these varieties of raw materials and technique occur together.