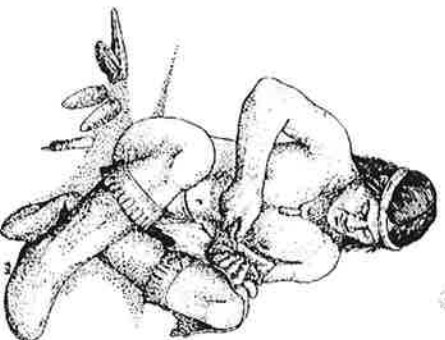


## Flintknapping



### Series in Ancient Technologies



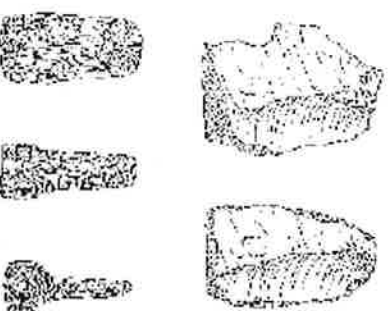
**Flintknapping** is the making of flaked or chipped stone tools. This technology was used in historic times to manufacture gun flints and in prehistoric times to make spear and dart points, arrow heads, knives, scrapers, blades, graters, perforators, and many other tools.



Flintknapping requires the ability to control the way rocks break when they are struck. The best rock is somewhat brittle and uniform in texture and structure, lacking frost fractures, inclusions, or other flaws. This type of rock is very fine grained or non-grained. The best rocks for flintknapping are chert, flint, chalcedony, quartzite, jasper, and obsidian. Chert and flint are silica-rich rocks found

A **soft hammer** is made of a piece of antler, although bone and some very hard woods can be used. Moose, deer, elk, and caribou antler are all usable soft hammers. Soft hammers are used when flaking very brittle material such as obsidian or when greater control is needed. Soft hammers will not pass as much energy to the core and will absorb some of the force, affording greater control of the size and shape of the removed flake. Edges being worked must be ground dull prior to flake removal. This dulling helps prevent edge collapse. A piece of sandstone, very soft limestone, or other soft rock may be used to dull the edge.

A **biface** is any chipped tool produced by flaking of both surfaces. Bifaces are typically formed in the following reduction sequence:



Each stage reflects progressive reduction of a core or large flake. The desired product might be a projectile point, knife, or drill. Bifaces and other tools were usually repaired and resharpened frequently, extending their use-lives but reducing their sizes until they were discarded.

**Heat treatment** improves the knapping quality of some raw materials. It requires gradual application of high heat. The color and luster of the rock often change noticeably, and the flaking quality of the rock improves