

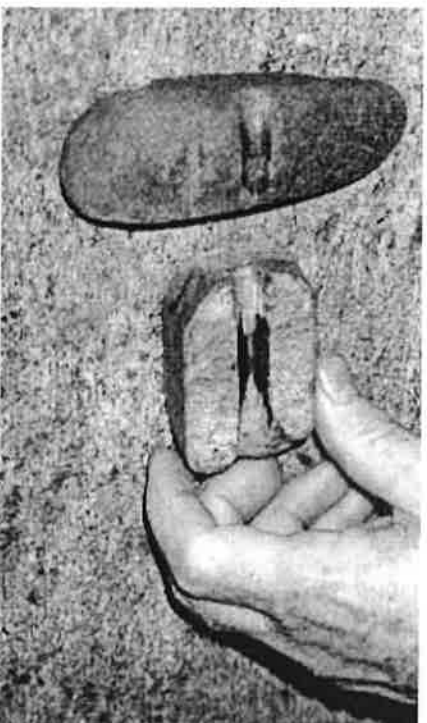
# Arrow Straightening

by Dick Baugh

The use of heat for manipulating the shape of wood is a fundamental Stone Age woodworking technique. Heat is and was used initially to straighten spear and arrow shafts and also for periodic maintenance of straightness.

Typically, the shaft material is gathered in the green state, straightened with heat while still green and then tied into a bundle to dry. Some shaft materials will check if they are dried too quickly. To prevent this put wax or pitch on the ends and don't peel the bark until the shafts are dry. Patience! The contemporary primitive technologist can speed up the drying process by placing the bundle of shafts in the interior of a car in summer time.

One can apply heat to the shaft in several ways. For taking out long curves you can apply the heat of a small fire. For removing kinks you need a heat source which is concentrated in a small region of the shaft. The best way to do that is to use a piece of soapstone (steatite) with a semicircular groove. Heat the soapstone until it will fry spit (same criterion used by grandma for the pancake griddle). Use a pair of tongs to remove the straightener from the fire and place it on a slightly raised platform.



**Two arrow straighteners**

The smaller one was recently made from soapstone. The larger is an authentic artifact, provenance unknown. It would be excellent for removing sharp kinks.

Place the part of the shaft to be straightened in the groove and rotate it. Rotating the shaft accomplishes two tasks. It applies the heat to the entire circumference of the region being straightened and it gives you a "feel" for where the high spot is. When the wood is hot then push down on both sides of the shaft to remove the bend. If you have never done this before then practice with something you don't care about. It's done by feel. This technique is especially valuable for bamboo, river cane, and phragmites which tend to collapse or buckle when bent with too much vigor. Another thing to do with shaft material which tend to buckle is to apply tension. Pulling on the ends of the shaft will reduce the tendency to buckle.