



# Making a Choctaw war arrow

Last month's edition of *Iti Fabussa* described different types of Choctaw traditional arrows and their uses. Some of these arrows are beautiful in their own right, but to really appreciate them, one needs to know what was put into making them. This month's edition will describe how to make a Choctaw war arrow using stone tools. Arrow-making is both an art and a science, and the process highlights some important elements of traditional Choctaw knowledge. While this knowledge is too complex and interrelated to be fully represented in this article, we hope to provide readers with a glimpse.

For Choctaws, arrow-making was traditionally done by males. As mentioned last month, the shafts of Choctaw war arrows were made from either river cane or wood. Although both processes are similar, making a wooden arrow will be the focus here. Wood species commonly used by our ancestors for arrows include yaupon holly, swamp dogwood, sourwood, and sparkle berry. These woods make excellent arrow shafts because of their hardness, stiffness, and tendency to produce shoots that are relatively straight and free of branches. Generally, the straightest shoots are found in areas of thick plant growth, where young trees must grow straight up to the light. Wildfires will also encourage straight growth.

Shoots are selected based on their size and lack of large branches, which would produce knots inside the wood. Although small and gradual bends in the shoots are okay, shoots with sharp, hard bends should be avoided. It is best to cut material for arrow shafts in the winter, while the sap is down, so that the wood will cure faster and with less cracking. If the shoots are harvested in the summer, they are cut extra long to allow for cracking on the ends.

Our ancestors harvested shoots for arrow shafts using a small, sharp stone flake to cut a groove all the way around the base of the shoot. This created a weak place, which could be used to break the shoot off, rather than sawing all the way through. Usually, arrows were made in matching batches.

The shafts, while green, should be carefully straightened by hand. The arrow-maker sights down the shaft to find a crooked spot. He then uses his hands to apply firm, even pressure to bend the crooked spot straight. The arrow-maker continues straighten-



Fig. 1

**Top to bottom: the process of straightening a sapling into an arrow shaft.**

ing out crooked areas one at a time, until the whole shaft is straight. Although this green wood can be made directly into arrow shafts, dry, seasoned wood is better. The straightened green shoots can be tied into a tight bundle and set aside for several months to dry. Pressure from the other shafts in the bundle helps them to keep their straightness.

After the shoots have dried, they should be given a second straightening (Fig. 1). They can be coated in animal fat and then held over hot coals. The grease from the fat keeps the wood from burning, and helps distribute the heat to the center of the wood. The heat makes the wood temporarily limber, so that it can be bent straight. After it cools, it will remain straight. One crooked spot is straightened at a time, until the arrow is straight like a dowel rod.

The straightened arrow shafts next need to have their bark removed, and to be thinned to the point that they have just the right stiffness to match the draw weight and draw length of a particular bow. This was traditionally done using a spokeshave, made from the sharp edge of a mussel shell, or from a flake of stone with a half circle chipped out of the edge. Some old Choctaw arrow shafts are barreled. This means that extra wood is removed from both ends of the shaft, while the middle is left thick. Having extra material at the center of the shaft conveys an important ballistic advantage, allowing an arrow to be both lightweight and stiff, helping it to fly farther and faster.



Fig. 2

**Arrow shaft with two sandstone blocks used to smooth it.**

In the past, arrow shafts were rubbed between two blocks of sandstone (Fig. 2). The even pressure from the two stones will make the circumference of the shaft extremely circular and even. Once sanded and evened out, the shafts were sometimes also rubbed hard with a smooth stone or deer antler to compress the wood cells. This "burnishing" can create a smooth, almost mirror-like finish in the wood, improving arrow flight, and helping the arrow to comfortably glide over the archer's bow hand when he shoots.

Usually, the tip end of traditional arrows is made from what was the top end of the sapling as it was growing. This is because the top of the plant is more likely to grow with bends in it than is the base. Over time, straightened sections of arrow-shafts can warp back towards the sapling's original form. If warp has to occur, it is better for it to occur near the tip where it can easily be straightened out again, rather than at the base, where it will be covered by the feathers and difficult to restraighnten.

Often, designs were painted on the shaft, so as to be under the feathers on the finished arrow. These painted designs helped identify which arrows belonged to which individuals during war, communal hunting, or archery contests. The paints were often made from crushed up colorful rocks, mixed with glue. Black and red seem to have been the most common colors.

The arrow point is "hafted" or attached to the arrow shaft through a process known as "achoshuli" in the Choctaw language (Byington 1915:10). Cutting a deep notch directly in a wooden arrow to receive either a stone arrowhead or the

bowstring can be extremely time-consuming using stone tools. The end grains of the wood quickly break and dull the brittle edge of the stone. However, ancestral people developed an ingenious way to make a notch in an arrow shaft using only four shallow cuts and a special breaking technique (Fig. 3).

Stone arrow points were usually cemented into the notch in the arrow shaft using pitch glue made from tree sap mixed with charcoal and other materials, or using hide glue made by carefully rendering animal hide scrapings and tendons. Once cemented in the shaft, the point was firmly bound to the shaft using plant fibers or shredded animal tendon dipped in glue. Several inches of the shaft are also wrapped to reduce the risk of the arrow breaking on impact (Fig. 4).

Putting feathers on the end of an arrow, a process known as "fletching" in English or "hotti" in Choctaw (Byington 1915:169), adds drag to the back end of the arrow. This keeps it from tumbling in flight. The curvature of the feathers also causes the arrow to spin, producing a gyroscopic motion that allows the arrow to travel in straight path over long distances.



Fig. 3

**Process for scoring and breaking out an arrow nock with stone tools.**



Fig. 4

**Hafting a copper arrowpoint (made with stone tools) to an arrow using deer tendon.**



**A matching set of traditional Choctaw hunting and war arrows.**

Fig. 5

Surviving early Choctaw arrows have several different fletching styles. One, is the typical "radial" fletching, where the halves of three feathers are spaced evenly around the arrow shaft, in such a way that one of them is perpendicular to the notch made in the arrow for the bow string. Turkey wing feathers seem to have been the most common choice. The feathers chosen must all be either from the left or right wing of the bird, so that they have the same curvature. Turkey wing feathers can either be split down the length of the quill, or stripped by a simple motion with the hands that detaches the vanes on one side of the feather with a thin strip of the quill. In either case, the ends of the feather pieces are trimmed so that they have a short tab of bare quill, which can be wrapped and glued down to the arrow shaft. For added durability, the quill can be glued to the shaft down the full length of the fletching.

Making a set of matching, well-balanced arrows is a difficult task, but well worth it. Today, there is nothing quite like putting a well-made traditional arrow on a bowstring and watching it smoothly blast into the sky, traveling so fast and arcing so high that you nearly lose sight of it. To our ancestors, the consistency and accuracy of these arrows was a major deciding factor in whether or not a man would be able to consistently put meat on the table, and protect his family from attack. Old surviving Choctaw arrows show that they did indeed put a lot of themselves into the art.

Note: This article is excerpted from *Chahta Intikba Im Aikhvna* (Learning from the Choctaw Ancestors) by Ian Thompson (2008)