

UP FRONT



MEADOWCROFT

By James P. Ulery

Eastern Woodlands Archery

As red dawn streaked the eastern sky, the lone hunter left the others under the rockshelter camp by the big creek. The catbirds softly mewed their displeasure as he passed through the hackberry thicket bordering the small grove of hickory and oaks he was patiently watching.

Now the random rhythm of the falling nuts seems to increase as the soft heat from the autumn sun in the southern sky warms the forest. Suddenly, as if she had coalesced from the last wispy tendrils of morning fog, a large doe steps from the copse of witch hazel only a few yards to his left.

Pinching the nock of his flint-tipped arrow on the bow's sinew string, he smoothly and silently draws back. As the deer lowers her head for one last succulent hickory nut, the soft thump of the released string seems to coincide with the thump of the arrow into her side.



Lone Hunter by Andrew Knez, Jr. This Indian hunter is depicted using a replica of the "Sudbury" bow. The original bow was taken in 1600 from a Wampanoag Indian in Sudbury, Massachusetts, and is housed in the Peabody Museum of Princeton University.¹ The replica pictured in the painting was made by Tom Roberts of Claysville, Pennsylvania.

Courtesy Andrew Knez, Jr.

From about 1000 to 1630 AD, in what archaeologists term the Late Woodlands era, Native American people of the Monongahela Culture lived in the vicinity of the Meadowcroft Rockshelter near Avella, Pennsylvania. Evidence from the rockshelter and similarly aged sites in the tri-state area have led scientists to conclude that the bow and arrow was their primary hunting weapon. During Native American Weekend at Meadowcroft Rockshelter and Historic Village, September 22-23, visitors can learn more about their bows, arrows, and archery equipment. Meadowcroft's 16th-century Indian Village allows visitors to travel 400 years into the past and re-live what life was like for the Eastern Woodland Indians.

What kind of bow did these Monongahela Culture Indians use? Narrative accounts and preserved museum specimens of the early contact bows are not nearly as numerous as those of post-contact native peoples west of the Mississippi River. Nonetheless, sufficient information exists to make some fairly conclusive statements regarding archery of the Eastern Woodlands period, including the types of bows they used.

The bows used by the Eastern Woodlands-era Indians were "self-bows," meaning they were hewn from a single piece of wood. Typically the bows were long (50-70 inches) and not backed with sinew or horn. Unlike the English longbow, the limbs of the bow were flat-sided and rectangular or trapezoidal in cross-

section. In the 1930s and '40s when archery hunting as a sport and wildlife management tool began taking root in the U.S., archers had to make their own equipment. Engineers and physicists began studying bows to determine the best design. Lo and behold the flat limb design of the Native American, henceforth termed the "American flat-bow," proved superior in many ways to the heralded English longbow.

Two forms of the flat-bow were prevalent. Most common was the "D-bow"; less common was the "handle-bow."²


When strung and drawn back, a "D-bow" bends all the way through its handle section, which is also where it is both widest and thickest. The bow limbs narrow in width and taper somewhat toward the tips, though the tips themselves are often bulky, built to withstand harsh conditions.

A "handle-bow," on the other hand, has a stiff, noticeably narrowed handle section. The limbs curve back uniformly from points on either side of the thinner, unyielding handle. The limbs bend in even, smooth arcs, gradually thinning in taper and width. Limb tips, when compared to a "D-bow," are often very delicate looking. Because they do not bend through the handle, these bows are generally longer in overall length. The "Sudbury" bow in the painting is a "handle-bow."

"D-bows" were probably the more common of the two for several reasons. First, it was easier to manufacture. Second, because the

"D-bow" bends through the handle, a proper shooting bow for any given individual would be noticeably shorter than a similar "handle-bow." This is a distinct advantage when stalking game in the woodland environment. Finally, the overall bulky nature of the tips and midsection of this design make it much more tolerant of the rigors of hunting and warfare.

This brief summary of Eastern Woodlands bows may have you wondering: what might the arrows have looked like? To discover this and more about native Eastern Woodlands archery, come to Meadowcroft's Native American Weekend, September 22-23, 2012.

Meadowcroft Rockshelter and Historic Village is open Wednesday through Sunday through Labor Day. In September and October Meadowcroft is open Saturdays and Sundays only, before concluding the 2012 season Sunday, October 28. 

¹ Steve Allely and Jim Hamm. *Encyclopedia of Native American Bows, Arrows and Quivers: Volume 1-Northeast, Southeast, and Midwest*. (Goldthwaite, Texas: Bois d'Arc Press, 1999).

² Al Herrin. *Cherokee Bows and Arrows*. (Eden Prairie, Minn.: White Bear Publishing, 1989).

Jim Ulery is a Meadowcroft employee and a retired research geologist from the U.S. Bureau of Mines. He has been an archery hunter since his teens, and collects vintage recurves, archery books, and memorabilia. He has recently begun making replica Native American bows and archery equipment.

New Self-Guided Native Forest Plants Trail at Meadowcroft



Visitors to Meadowcroft can now enjoy a self-guided walking trail loop through the woods with informational signs that detail how the forest served as the supermarket, pharmacy, clothing store, and much more to American Indians. For example, visitors will discover how poplar trees were used by American Indians to make dugout canoes and how the Iroquois believed that plants like the maple-leaved viburnum offered special protection against curses and sorcery.

The maple-leaved viburnum.