INDIAN HANDCRAFTS
How to Craft Dozens of Practical Objects Using Traditional Indian Techniques

The dye for leather moccasins was made from bark, leaves, or woodland flowers. The shoes were then decorated for ceremonial purposes, with quillwork, beads, or paint.

Triangular, Tapered Stem, Leaf

Flint-hard and glasslike—was the stone most favored to carve arrow points from.

The Iroquois wooden false-face mask was said to have curative powers over illness or injury.
DUGOUT CANOES

The native Americans were astounded at the size of the early European sailing ships. Where, indeed, did trees grow to such a gargantuan size - large enough to hollow a vessel of such proportions?

William Wood, in his 1634 New England Prospect, described the dugout as made of pine. "Burned hollow, [then] scraping them smooth, with clam shells and oyster shells, cutting their outsides with stone hatchets. These boats be not above a foot and a half or two feet wide and twenty feet long."

It is difficult to imagine these white-pine giants being felled, trimmed, and hollowed by burning - and the char being chipped away with primitive tools. Yet experienced craftsmen could trim the sides to within a inch and could completely shape and finish an average canoe in just three weeks.

Hatchet - William Wood noted in 1634 that the Indians finished their dugouts by "cutting their outsides with stone hatchets." Late Archaic-Ceramic

Grooved ax - A hefty piece of stone that could fell a tree with the help of fire. Late Archaic.

 Celt - Useful for chopping out char. Some were used without handles, as wedges. Late Archaic - Ceramic.

Quahog shell - The ocean's ready-made scraper - and chipped stone scrapers gave a smooth finish by removing residual char from the inside of the canoe.
Ancient descriptions cannot compare with actually SEEING a 500-year-old dugout. In 1965, a severe drought had reduced much of the Great Pond reservoir to muck at Weymouth, Massachusetts. The discovery of the decade began when a group of boys chanced upon a protruding chunk of water-soaked wood. Armed with shovels, they gradually exposed an extremely rare Algonquian dugout canoe, preserved in the mud bottom since A.D. 1480.

Now safely displayed in the Tufts Library at Weymouth, the canoe stands as a monument to the ancient art of burning and scraping a seaworthy craft from a log.

APPROXIMATE MEASUREMENTS OF WEYMOUTH DUGOUT—“MASSACHUSETTS ARCHAEOLOGICAL BULLETIN”

REPRODUCING THE DUGOUT

Ever since the Weymouth discovery, I hankered to see if a dugout afloat handled more like a log than a canoe. A twentieth-century copy was the answer. It happened that a nearby white pine—just the dimensions of the drawing above—had been struck by lightning. A logger friend dropped the trunk off at my back yard. I attacked the giant with some typical colonial tools. You may wish to burn and scrape in the old way—or even to be ultramodern with a chain saw—your choice.

SELECT A STRAIGHT WHITE PINE WITH
A TRUNK FREE OF BRANCHES FOR 13 OR
30 FEET. FELL IT ON A BED OF SMALLER,
LOGS. CHOP OFF THE BRANCHES AND CUT THE
STUMP TO GIVE AN 11-FOOT LENGTH. PAINT
VARnish, LINseed OIL, OR SHELLAC ON THE
ENDS TO PREVENT CHECKING.

REMOVE THE BARK
AND SNAP A CHALK LINE
TWO-THIRDS OF THE WAY FROM THE LOG
BOTTOM. USE WET CHARCOAL DUST ON THE
CHALK LINE IF THE CHALK IS DIFFICULT TO
SEE.

SPLIT OFF THE BLOCKS
BETWEEN THE CUTS OR
NOTCHES WITH TWO
WEDGES DRIVEN INTO
EACH SIDE OF THE CHUNK. OR AN AX OR
AN ADZ MAY HELP FLATTEN THE LOG TOP.

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Before hollowing the dugout, consider these helpers:

**Knee Height**

The Algonquians raised the trunk to a workable height. I had the logger place the log on these supports when it was delivered. The dugout can certainly be made on the original log bed, laid at the time of felling.

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**Hollowing Adz**

And if you are handy with a chain saw, cutting across the grain is a great help when chopping out the inside of the dugout.

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**Wood Mallet**

**Hatchet**

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**Snap a Chalk Line 4 Inches Away and Parallel to the Straight Sides. Extend These Lines Down the Smaller End. Mark a 16-Inch Bottom to Be Removed Later.**

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**Snap Two Parallel Lines to Preserve as Much Wood as Possible. Chop Off or Saw to Give Straight, Equidistant Sides.**

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**The Small Butt End Now Has an Outline of the First Amount of Wood to Be Removed (Shaded Area). Draw Same on the Larger End.**

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**Keep 2 Feet Away From Both Ends During the Roughing Out.**

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**With the Gouge and Mallet or the Hollowing Adz, Remove the Wood at Each End. Make a Gentle Slope.**

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**Draw Curved Ends to 2 Feet Down on Each Side. Draw Inner Curves 3 1/2 Inches from the Ends.**

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**Remove Wood by Cutting Across the Grain, Then Chopping Section Chunks Out with Adz or Ax.**

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**This Ends the Rough Removal of Interior Wood.**
To finish the inside, thin sides, keep a careful eye on the cross-section sketch, measure depth of the bottom, and keep it constant.

Smooth the sides and mark sides 3/4 inch thick. Keep ends 3 1/2 inches thick. Sketch final cross section on both ends (darkened curve).

Chalk lines.

Cut bow slant while you can still see the inside.

Working again from the smaller end, snap chalk lines 10 inches apart. Saw to the lines and ax off the chunks.

Chalk lines.

Round off the sides to the chalk lines.

With care, round the underside of each end.

Round off the sides to the chalk lines.

With care, round the underside of each end.

Turn the dugout right side up and round the ends. To preserve your handiwork, brush linseed oil over all surfaces - and you're done.

Another thought — although I found it unnecessary, dip hardwood slivers into ink. To a point slightly greater than the width of the side, make a hole with an awl, nail, or drill and drive in the sliver. Remove inside wood until the color shows.

Concerned that digging out the dugout might chop holes through the sides or bottom? You might try these two ideas to avoid making a leaky wooden bathtub.

Cut out a cardboard pattern to fit your particular log. Cut off 1/2 inch extra on inside and outside patterns for easier insertion in the dugout.

\[ \begin{align*}
1'/4'' & = 1/2', \quad 2'' & = 1', \quad 3'/2'' & = 1 1/2'' \\
3'/4'' & = 1 1/4', \quad 3/4'' & = 1'' \\
\end{align*} \]