



A CARVED BOAT FROM THE NORTHWEST COAST

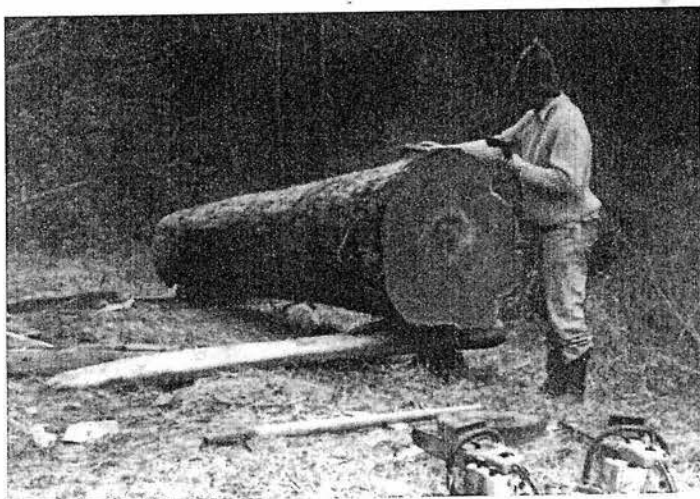
Text and Photos By Gregg Blomberg

The thought of carving a dugout came naturally to me, living as I do on an island on the Washington coast. Canoes were as vital to the people of the northwest coast as horses were to the people of the plains. The dugouts the Coast natives built were beautiful, sophisticated and seaworthy. Steve Brown, a fine northwest coast artist and a friend, built several of these craft for the Makah Cultural and Research Center at Neah Bay, Washington. Displayed as they are surrounded by other rich West coast cultural materials, they are an inspiring sight indeed.

were for use in protected waters or for river travel. The size ranged from small craft for clamming across the bay to sixty-plus foot craft capable of carrying a formidable array of men and weapons off to capture slaves hundreds of miles away.

I chose to build a boat in the tradition of the peoples of the west coast of Vancouver Island and the northwestern corner of Washington. West coast (Nootkan) boats have a reputation for seaworthiness. Unique to the West coast people was an active whaling complex in which crews of eight men would whale using 36-foot boats and sophisticated equipment,

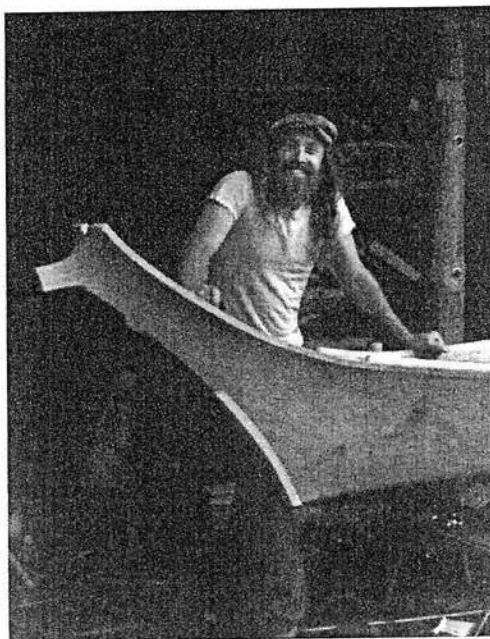
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Donald Stiff preparing the log for halving.

The idea of building one of these craft soaked in my brain. The first thing to do was to procure a suitable red cedar log. Since buying a log was out of the question, that meant waiting for one to drift in on the beach. Years of beachcombing told me it might be a long wait, and indeed it was several years; but as the bard had said, "All things come to him who waits," and finally my log chose me. Had I been able to choose, it would have been a log with more breadth and less heart rot and knots. However, the log was a fine old grandmother cedar. Growth rings told it was nearly a hundred years old when Captain Cook "discovered" the northwest coast in 1778.

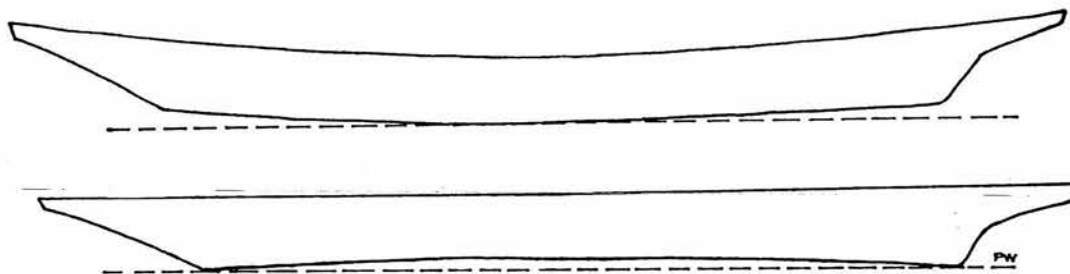
The styles of canoes built by different groups along the over-thousand miles of coastline varied considerably. Designs were adapted to use and convention. Some designs



Steve Horn

Gregg Blomberg and bow of nearly completed canoe.

Gregg Blomberg is an artist and craftsman specializing in the material culture of the Northwest Coast Indians. He is the owner of Kestrel Tools, makers of fine traditional carving tools; ie. crooked knives, adzes, and inshaves. For a catalog, send \$4 to Kestrel Tools, Rt. 1 Box 1762, Lopez, WA 98261, or call (206) 468-2103.



Profiles showing the reverse rocker of the boat bottom prior to steaming, and the resulting rocker created by the spreading of the sides. After Holman from *Historical Salish Canoes*.

It may be a bit of a digression, but all this stuff about "I'd rather be cut by a sharp tool" seems a bunch of bananas. I am a real believer in sharp tools, but a really sharp edge doesn't believe in anything short of bone. Certain kinds of injuries aren't much fun no matter how sharp the tools are: chain saws for example. Probably the best injury-preventative is being alert to tool run-out. Where does this tool end up if it goes as far as it can in the direction it is pointed? For power tools this dictum is reversed: the runout to watch is that of your hand (or whatever) as it presents the work to the machine. Perhaps more mystical but just as real is paying attention to the little voice within that says just before an accident that you are working dangerously. Ignoring this voice even for a single stroke can mean a gouge in your palm or something equally unpleasant.

combined with rigorous ritual.

The first step in making the boat was to roughly halve the log and carve the outside. The style chosen is the basic idea, but the log itself can exert limitations, and finally the builder must consider the steaming process that will take place later. Carving the outside involves some educated guesswork as to how the shape will alter during the steaming process.

After shaping the outside, 1/4" thickness gauging holes were drilled at intervals of two hand-spans longitudinally and a hand apart transversely. Into these gauging holes cedar plugs of varying lengths were driven flush with the outside surface. The plugs for the sides near the gunwales were 1 finger width, 1 1/2 fingers width near the turn of the bilge and 2 fingers width on the bottom. [Some are charred or of contrasting color so that they are more visible when they are exposed].

The inside was begun by removing large chunks of waste wood with chain saw and wedges, finish work being mostly done with adzes and inshave. When the ends of the gauging plugs were even with the inside surface, the carving in that area was complete.

While working near the bow on the inside, I got into boat on my knees with a largish gutter hand adze. Without a single overshot stroke, I undershot the first blow, whacking myself in the knee smartly (can one use this adverb in this case? Man, it did smart!) The sequence of picking up the adze, getting into the boat, whacking myself in the knee and getting out of the boat, all without removing a chip, seemed almost ceremonial. Well, the only thing smart that day was the blow. After getting sewed up, I came home and went back to work. Fifteen minutes of that convinced me it was the wrong thing to do and I spent the better part of the next two weeks lying on my back.

After taking time to heal and to finish the interior, the boat was ready to steam.

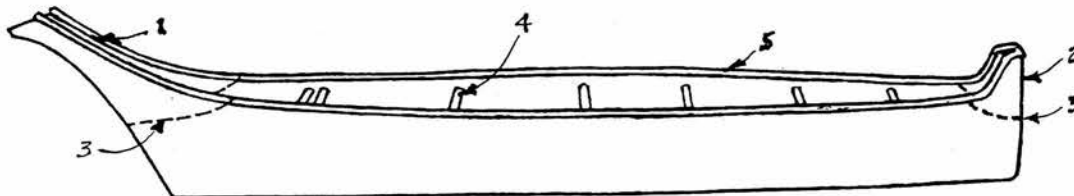


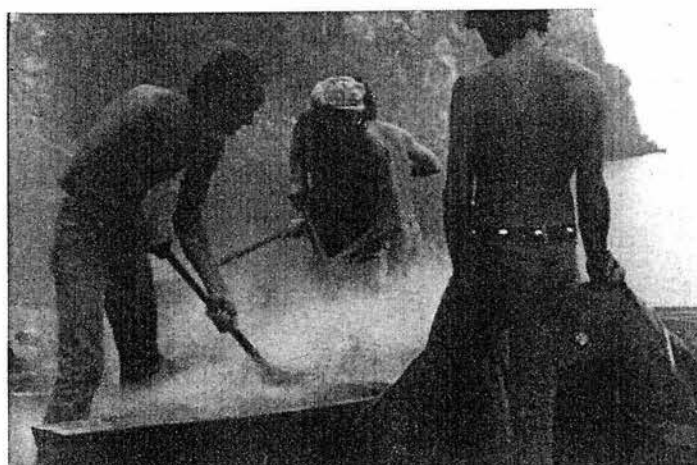
Diagram illustrating the parts of a canoe: 1. Carved bow piece; 2. Carved stern piece; 3. Joints or "scarfs" where carved pieces are joined to the hull with glue and lashing; 4. Thwarts; 5. Gunwale strips pegged to hull. After T.T. Waterman from *The Whaling Equipment of the Makah Indians*, 1920.



Working with inshave on the outside of the hull.



The log has been scored with a chain saw to block out the inside. The chunks were split out with wedges.



Steaming the boat. The heat was intense.

At this point the carving more closely resembled a cattle trough than a boat. The sides were straight throughout much of the carving's length and the bottom had 1 1/2" of *reverse rocker* in anticipation of the steaming process. For steaming, a fire was built on either side of the boat as close as comfort allowed. From the fires we loaded red hot rocks into the partially water filled carving. The water was kept boiling vigorously for about three hours. As the process progressed, we drove increasingly longer wedges into the hull at the gunwales.

The potential for making two boats out of one at this point can easily be imagined. Cedar is not much embarrassed by splitting, as is attested to by the "handsplit" cedar shake roofs that abound in the northwest. In this regard, having a log too clear and straight-grained can be disadvantageous. I was hoping to move the sides out 10", and although that amount was reached, the boat began to develop cracks at the turn of the bilge. We backed it off to 8". Subsequently the cracks were "sewn" together with copper wire.

The steaming process turned the trough into a boat shape with a nice flare, pretty shear and a slight rocker (as the sides went out the ends came up).

Finally fir thwarts replaced the temporary bracing, and bow and stern pieces were carved of separate pieces of cedar and carefully fitted. To protect the cedar gunwale, strips of fir were pegged into place, and the canoe was painted in the traditional colors with iron oxide pigments - red inside and black outside - with the gunwale strips and thwarts left natural. A striking color combination.

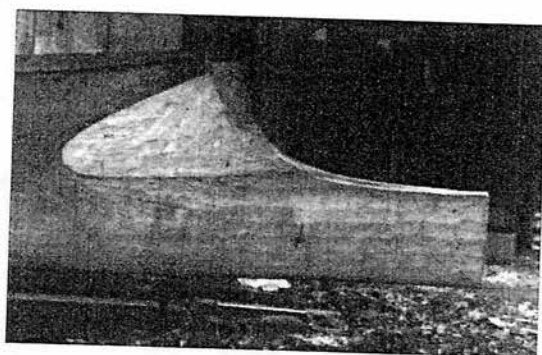
The finished canoe weighs about 150 lbs. It is 16'4" long with a beam of 34". The carving took about two months, spread over about a year to complete. My own modest ability and knowledge would have been insufficient for the task without the help and encouragement of Bill Holm, Steve Brown and others who have preceded me.

For sea trials a friend and I helped get together a journey to the outside of Vancouver Island. What better place could we take the canoe than to the waters from which the design originated. The others on the venture were all in kayaks. My previous cruising in this area had been in an Eskimo style kayak, but the canoe was a major departure from that. For one thing, gear stowed in a kayak was protected from rain and spray; the open boat would likely often be wet. To our dismay we discovered we had only about 4" of freeboard when fully loaded. Despite this and our novice status as dugout drivers, the canoe performed quite well. We had it in interesting combinations of swell and wave but the

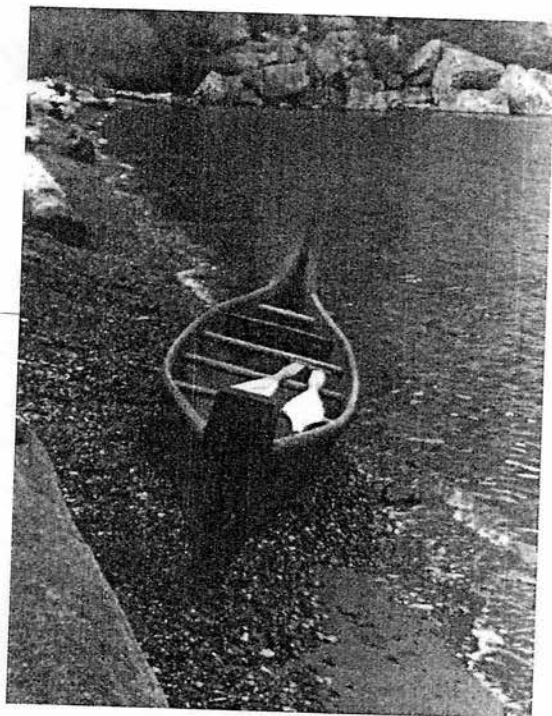
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only problem was that of a following sea on the quarter. In that case occasionally the waves would run up the side of the boat and their tops would fall into the canoe. While on the trip we rigged up a sail and had some wonderful downwind sailing in rough waters.

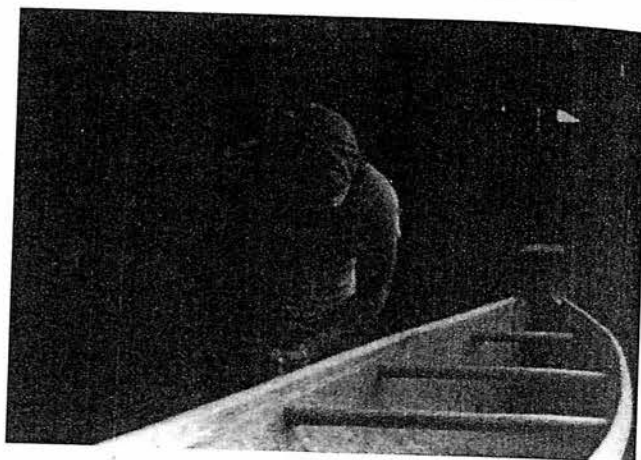
While on the "outside" we visited an Indian village where the canoe obtained the approval of the older folks. Although a friend some years earlier had visited with a man of this group who was using a dugout converted to take a small outboard, not one boat of this type was left in the village. At one point during our visit, three children accompanied by a young man took the canoe out for a spin. For a few minutes there, it actually was an Indian canoe.



The scarf joint for the stern also shows pieces added to replace rot. This joint could be drawn for greater clarity.



Note paddles of Alaska cedar in traditional shape.



Thwarts and gunwale strips in place.

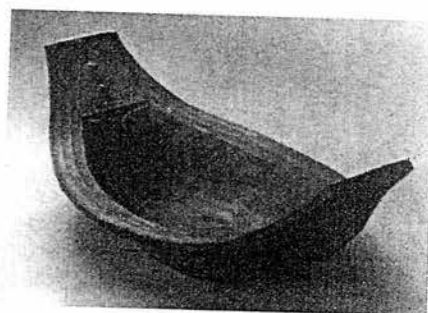
Steve Horn

Boas mentions the following rules observed by the canoe builder: He avoids contact with the opposite sex, otherwise he finds rotten places in the wood from which he is shaping the hull; He does not comb his hair, otherwise the ends of his canoe become split; Also, he does not permit anybody to look when he is heating the hull and spreading the sides, for that may cause the canoe to split open. Similar rules are scrupulously observed by the Makah.

T.T. Waterman,
The Whaling Equipment of the Makah Indians



It floats!



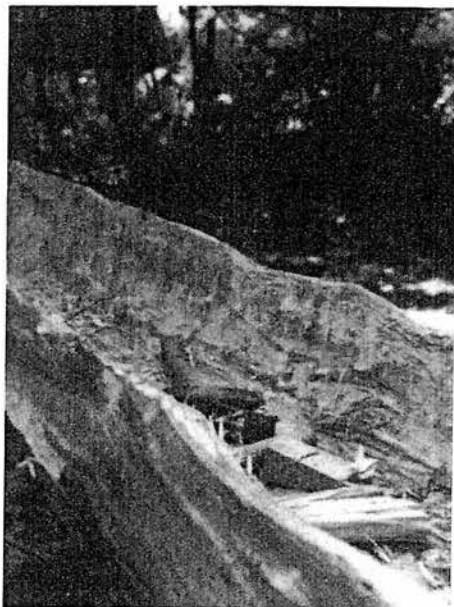
Northern canoe-style feast bowl in alder.



DANISH NEOLITHIC BOAT PROJECT

Text By Errett Callahan, Photos By Søren Moses

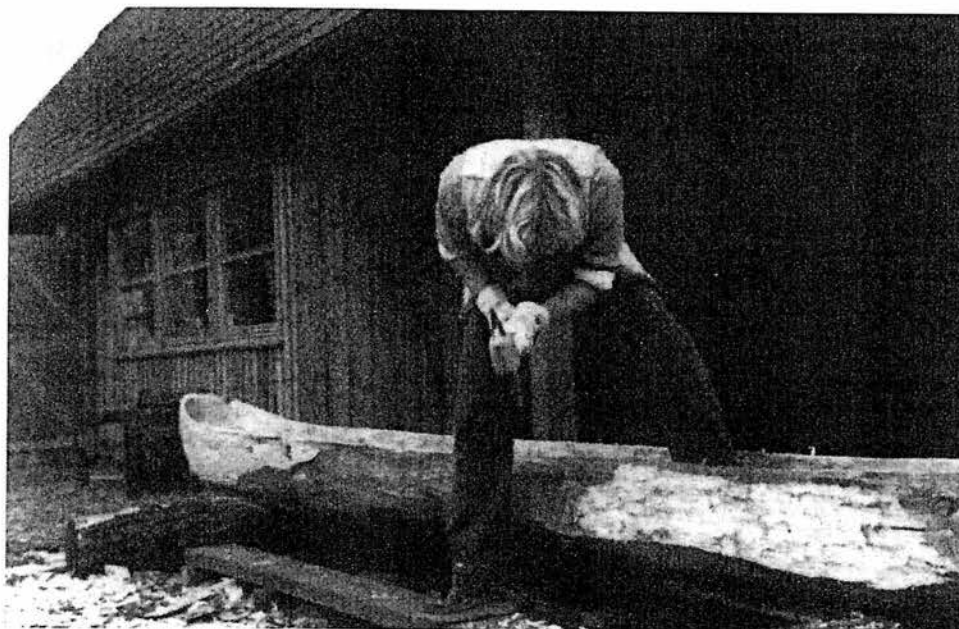
Søren Moses and dugouts made with Neolithic stone tools in Denmark, 1982 - 87.



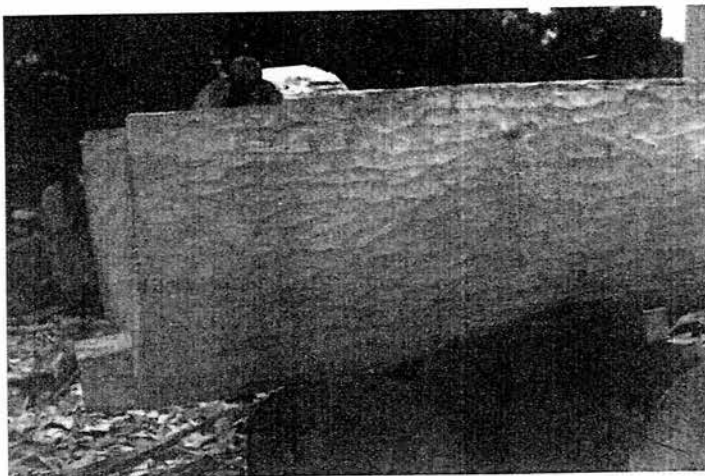
Roughing out the hull with adze and ax.



Shaving the gunwales with blade tools.



Final shaping on the exterior.



Detail of the stern showing extremely fine workmanship.



Stern with end block in place prior to sealing.



Søren Moses, Denmark, 1986.

All boats were made with appropriate tools....These canoes are way ahead of anything I've seen in the states. Not only in use of stone tools but in the thinness of the walls. All U.S.. dugouts I've seen are way too thick...

Søren Moses also collaborated with Thorbjørn Petersen in 1987 on a canoe that was 30' long. It was part of an educational program and was paddled around much of Denmark

Mesolithic antler and core axes were used to replicate a beautiful prehistoric Danish dugout in 1986 as well.



Ready for the maiden voyage.