A CONSERVATION PERSPECTIVE ON THE WOODEN CARVINGS OF THE PACIFIC NORTHWEST COAST
Melissa H. Carr

ABSTRACT
The poles, house posts, masks and bent-wood boxes carved by the 18th and 19th century Northwest Coast natives were studied from the perspective of a furniture and wooden objects conservator. Particular attention was paid to the selection of woods, the tools and techniques of carvings, the coatings, and issues relevant to their conservation.

INTRODUCTION
The Northwest Coast carvings are an expressive record of the 18th and 19th century Northwest native cultures, evoking their power, complexity and artistic achievement. The early population of the Northwest Coast extended from Southern Alaska through coastal British Columbia and south to the Columbia River in Oregon. The ethnographically distinct groups in the region with a substantial body of sculpture in collections were the Tlingit, Haida, Tsimshian, Bella Bella, Nuxalt (Bella Coola), Kwagiulth (Kwakialul) and the Nuu-chah-nulth (Nootka). (Holm 1990)

The carvings were always created for a particular occasion, be it a death, a birth, or a proclamation of hereditary status. A chief might commission a pole to commemorate an honored relative, claim hereditary affiliations in a particular clan, or transmit hereditary privileges to the next generation. Masks were created for dances re-enacting the creation myths. Carved houseposts were placed in the homes of important and wealthy members of the tribe.

The public ceremonies at which the carvings were first displayed or installed were attended by relatives, friends and members of rival clans. Their presence as witnesses was required to certify the claims of the host, and their public acknowledgement was rewarded with gifts that were sometimes so extravagant as to materially impoverish the host.

But there were two kinds of wealth in the Northwest cultures: material and hereditary. The material wealth of the potlatch gifts, masks, canoes and homes was replaceable and therefore could be given away. The wealth of clan affiliation and status, embodied in the songs, myths, dances and crests, was owned by right of inheritance and could not be either given away or sold. (Blackman 1990)

THE CARVINGS
This discussion will focus on masks, poles, house posts, and bent-wood boxes and will not address the many other wooden artifacts of the Northwest Coasts such as water-logged wood, food-gathering items (e.g. weapons) and canoes.

There were three basic mask types. A single-face mask represented one face albeit there may have been smaller faces around the border. An articulated mask had a single face but had moveable parts, e.g. the jaw or beak moved or snapped during the dance. Transformation masks had one or more faces behind the outer face, representing changes in the outer covering of a being as if shifted between its animal, human and supernatural forms. The shaping and maneuvering of the faces required significant skill in carving and performance. (Malin 1978)

Poles can be roughly divided into structural and free-standing types. Structural poles appeared as interior house posts, exterior house posts, and house entrance poles. The interior posts were usually in groups of four supporting the roof beams, and were decorated with figurative carving and frequently with paint. The exterior house posts were less common and sometimes were decorative slabs with no structural purpose. House entrance poles were hollow-backed columns attached to the front gable, with a circular or oval opening.
Free-standing poles honored the living and the dead. The familiar totem pole of continuous carving from top to base depicted the important crest images of its owner, proclaiming his clan affiliation and status. The prestige of the patron was tied to the size and quality of the pole. (Stewart 1984) One Nass River chief forced a rival to shorten his pole after it was in place so that it would be shorter than his own. (Barbeau 1932)

Free-standing poles for the dead appeared as mortuary poles and memorial poles. Mortuary poles were elevated tombs, sometimes carved at the base or top with images relevant to the deceased. If a single pole supported the coffin, the tree was inverted such that the broader base was supporting the box. If a double set of posts supported the coffin, they would be bridged by a platform and decorated screening board; these poles were rarely carved. Memorial poles commemorated achievements of the dead and the status of the heirs. They were usually tall and slender; northern versions typically had one or two figures at the base and a single figure at the top, with the bulk of the shaft uncarved. (Ward 1978)

Coffins were steam-bent boxes placed in the niche of a mortuary column or in a grave house if a memorial pole was to be erected. (Blackman 1990) The body was placed in the box with the head at the sewn comer so that the soul could get out through the crack.

Steam-bent boxes for everyday use, such as cooking boxes and urinal boxes, were generally undecorated. Other steam-bent boxes and chests were prized possessions, passed down through generations and used to store ceremonial possessions. On important occasions they might also serve as a seat or drum. Boxes could also be trade items, in which case they were carved and sometimes painted although not with crest emblems.

THE CARVINGS AS WOODEN OBJECTS

Wooden objects, regardless of final form or finish, have certain physical and mechanical qualities in common. For an extended and eminently readable discussion of these qualities the reader would be well served to consult Bruce Hoadley’s Understanding Wood. (1980) In lieu of that, a bare outline of the nature and behavior of wood as it appears in the carvings follows.

Wood is hygroscopic and anisotropic, meaning that changes in relative humidity cause changes in moisture content, and changes in moisture content cause unequal changes in dimension. In the green state, moisture is present in wood as free water in the cell cavities and bound water in the cell walls. When the wood has dried to the point that all the free water is gone the wood is now at its fiber saturation point (FSP = roughly 30%). Drying below the FSP pulls water out of the cell walls, causing shrinkage. This shrinkage is greatest in the tangential direction, less so in the radial direction, and negligible along the length of a log or board. (Hoadley 1980) Northwest Coast carvings present tangential, radial and cross-sectional surfaces to their environment and each surface responds differently to relative humidity and other agents of change and decay.

Given the right conditions, all woods will decay but some are far more naturally resistant to fungal and insect attack than others. What confers decay resistance? Sapwood is extremely attractive to decay-causing organisms, both because of the nutrients and the lack of extractives found in the heartwood. In the Northwest Coast carvings, the carver typically peeled off the sapwood; its absence is fortuitous. In the heartwood there are no nutrients present and the presence of extractives is toxic or repellant to the development of fungi and insects. Of the most common Northwest Coast carving woods, yews are extremely resistant, cedars are resistant, and alder, maple and hemlock are slightly resistant or non-resistant. (Hoadley 1991)

Gallery or catalog notes frequently identify the material in Northwest Coast carvings simply as wood, accurate as far as it goes but not as useful as identifying which wood. For example, a whistle in the Burke Collection of the Washington State Museum in Seattle is identified as “hardwood, possibly yew.”
Singers’ batons are made from a “hard, tough wood” and a carved staff is made of a “very heavy wood.” A totem carving is made of a “hard, dark wood.” (Holm 1972)

Wood identification is fairly straight-forward and offers insights into why particular woods were favored for certain types of carving. Totem poles, canoes, and potlatch bowls were carved of western cedar because it was big, easy to carve and naturally resistant to decay. The straight-grained wood was easy to split for house planks and to bend for boxes. (Gunther 1966) Because western cedar was relatively light it was also favored for the larger ceremonial masks, making them manageable for the dancer. (Stewart 1984)

Yellow cedar is a smaller tree than the western red cedar and was used for smaller totem poles, frontal pieces of headdresses, some masks, steam-bent boxes, chests and canoe paddles. (Hawthorne 1967) Yellow cedar is a harder, more dense wood than western red cedar and is less likely to splinter making it easier to work for smaller, fancy carvings. (Keithahn 1963)

Native carvers like alder for its fine texture, using it for small dishes and spoons, rattles, headdresses and masks. (Hawthorne 1967) It is soft and easy to carve, especially when damp. Alder shrinks significantly more than the cedars and therefore its common use in masks must have been accompanied by slow, careful drying.

Because of big leaf maple’s relative hardness compared to other Northwest carving woods, native carvers typically used it for smaller pieces requiring a dense wood, such as rattles, headdresses, frontlets, and skewer hairpins. (Hawthorne 1967)

Yew is a much harder wood than others available in the Northwest, albeit taxonomically it is classified as a softwood. A yew mask cited in an early 20th century publication from the Hudson’s Bay Co. (Hudson’s Bay Company) is unusual; more commonly the wood was used for clubs, bows, wedges and canoe paddles. (Hawthorne 1967)

CARVING TOOLS

All of the tribes used some combination of chisels, crooked knives, adzes, wedges and mauls. Tools were specialized but results depended as much on how a tool was handled than on what tool was chosen. (Gunther 1966) Each carver made his own tools (many carvers still do), suited to individual style and work habits.

Prior to the advent of steel blades, cutting edges were shaped from stone, shell, bone and teeth. There is some disagreement as to whether the steel blades were sharper, more durable versions of the earlier implements. (Holm 1990) Certainly the blade of a crooked knife resembles the shape of shell and beaver tooth blades, but its range of use is so much greater as to constitute a different tool. If the natives did use shell blades, it implies that they worked with completely saturated wood in order to have a cuttable substrate.

Adzes were used for both coarse removal of large quantities of material and fine surface texturing. There were three adze types, distinguished by handle and each used with a variety of blades.

The most common adze type was the elbow adze used in the north and central regions. The “elbow” in elbow adze refers to the crook of the haft and not its action in use. (Blomberg 1992) The length and heft of the haft of an elbow adze determined the size of the blade and therefore the size of the chip. (Stewart 1984) A shaping elbow adze was used for the initial roughing and hollowing of the work. A finishing or surfacing elbow adze had the haft cut away so that the blade springs on impact, popping out the chip. (Blomberg 1987)

The D or hand adze had a generally narrower blade for fine work and finishing. It was common in the central and south central region of Vancouver Island and the adjacent Washington coast.

The straight adze with the blade in line with the carver’s hand was used in the Oregon region.
A shorter-handled elbow adze, the D adze and the straight adze were also common in southern regions. (Holm 1990)

After most of the wood was removed from a mask or pole blank with an adze, crooked knives of different curvature were used for finer detail work. The crooked knife was held palm up and drawn toward the carver. (Holm 1990) The blade is flat on its bottom edge and sharpened on its upper bevel edge.

After the shaping and detailing was complete the finished surface was sometimes tooled with regular adze marks applied with a slightly concave blade rounded at the edge. (Keithahn 1963) Abrasive dogfish skin or horsetail was used to achieve a smooth final surface. (Holm 1990)

**COATINGS**

Many Northwest Coast carvings were also painted. Different tribes emphasized the use of different colors such that the presence of an unusual color on a carving may indicate the later hand of an artist from a different tribe. The Kwagiulth used dark red, black, white and sometimes a dark green to enhance, emphasize or embellish the carved forms. Older style Kwagiulth painting left the cedar background unpainted; later in the 19th and 20th century a white paint background was typical. (Holm 1972) The Bella Coola used an intense pale blue, white, red and graphite black. The Haida, Tsimshian and Tlingit carvings were mostly unpainted with some decorative touches of red and black. (Hawthorne 1967)

The addition of commercial paints to the native palette did not initially change color choices to any great degree but it is no coincidence that the availability of commercial paints with more and stronger colors at the end of the 19th century was followed by an increase in painting on the carvings. (Hawthorne 1967)

**A BRIEF NOTE ON CONSERVATION**

Polychrome wooden objects come in many different forms. Religious icons, panel paintings, painted furniture and ship figureheads are but a few of the object categories sharing common material ground with the wooden carvings of the Northwest Coast. We know what will happen to these objects; we have our research, our memories and the evidence before us that wooden carvings do not last forever except in an ideal environment that does not exist.

Cultures change, by fair means or frequently foul. It is true that the traditional genesis of the carvings has changed. The carvings were collected as a record of the originating cultures. That early need to record and interpret has changed as the audience for the carvings changes. The debate over whether the carvings should be treated as ethnographic object or as art periodically flares with passionate advocates for both positions. Certainly the natives did not view them as art but neither did they view them as ethnographic objects. Clearly either category is simply shorthand for what different audiences want or need from the carvings.

For conservators the ambivalence over the status of the carvings has consequences both in funding and treatment priorities. There is no safe haven in the “integrity” of the object; it too is subject to changing needs and technology. With apologies to Susan Sontag, integrity is a function of context and the context has changed.

**REFERENCES**


