A Pirogue by any other Name...

By Allen "Doc" Wesselius

A Backward Glance at the Corps of Discovery's Watercraft

Captains Lewis and Clark gathered valuable information about western Indians during their transcontinental exploration of North America. Carrying out President Thomas Jefferson's instructions to the Corps of Discovery, they recorded ethnographic information that covered nearly every aspect of Indian life. Although this research was not the prime focus of the expedition, the captains took their scientific tasks seriously; they collected some of the first original information related to western Indian customs and ways of life.

"The natives inhabiting the lower portion of the Columbia River make their canoes remarkably light neat and well adapted for riding high waves."—Captain Meriwether Lewis

One feature of native culture that captivated them both was the Indian canoe. Long, illustrated entries in each of their journals presented detailed descriptions of canoe styles and complimented Pacific Northwest Indians on their nautical skills. So focused were they on these novel discoveries that they failed to adequately describe the watercraft they themselves employed, including the Indian canoes they acquired through trade.

Canoes were a common form of water transportation during the early history of American exploration and settlement. Christopher Columbus first saw hollowed logs used for watercraft when he visited the Caribbean island we now call Haiti. The Haitians called their boats "kana:wa." Columbus used the word when he returned to Spain. As the use of the

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Lewis sometimes called all the Columbia River vessels canoes; at other times he referred to the dugouts as "perogues" and the Indian-made vessels as canoes.

word spread, it changed slightly to "canoa" and then "canoe." The term evokes images of a vessel quite different from the ones used by Lewis and Clark.

From the beginning the captains did not waste valuable time and materials on journal entries describing their own watercraft. Details about the keelboat and two pirogues (dugouts) used on the Missouri River were not specific and have led to speculation about the exact design of the two types of vessels used at the start of the expedition. Their only illustration of a pirogue was labeled "Perogue of 8 Tuns"; the diagram was used for balancing loads. "Pirogue" was a French term for a large, open dugout; the captains used the term interchangeably with canoe.

The two Missouri river pirogues were probably of finer craftsmanship than the rough-hewn dugouts the expedition party made at various locations along the exploration route. The dugouts were hurriedly fashioned by hollowing out large logs and tapering the ends to a point. The journals provide no specific information on the exact design of these watercraft, and again the captains use vague terminology, variously referring to them as canoes, dugouts, and pirogues.

The dugouts used in the Pacific Northwest were built of Ponderosa pine at Canoe Camp on the Clearwater River at present-day Orofino, Idaho. They probably were about 38 feet long, 40 inches wide, and weighed around three-quarters of a ton when dry. These cumbersome vessels were unamenable to portages and highly unstable in rough water. By comparison, the Indian canoes—light craft designed specifically for travel through rough water—were far superior.

Canoes crafted by Pacific Northwest Indians were entirely different from the birch bark canoes that are often used to symbolize the preferred transportation of early explorers and fur traders of North America. Perfected by the Indian tribes of the eastern woodlands of Canada, the frail but versatile birch bark canoe was fashioned from the bark of yellow birches folded around a cedar frame and calked with spruce gum. Adapted for fur trading by the Canadian fur companies, the craft was perilously easy to tip and would not have been a functional mode of transportation in the rough waters of the Pacific Northwest coastline and rivers. The Indian canoes Lewis and Clark encountered on the Columbia River were entirely different, and the explorers had no trouble recognizing their superior qualities. In rough water the native craft far surpassed the capabilities of their heavy dugouts. Despite their limited means, the captains managed to replace their damaged or lost dugouts with Indian canoes as the need arose.

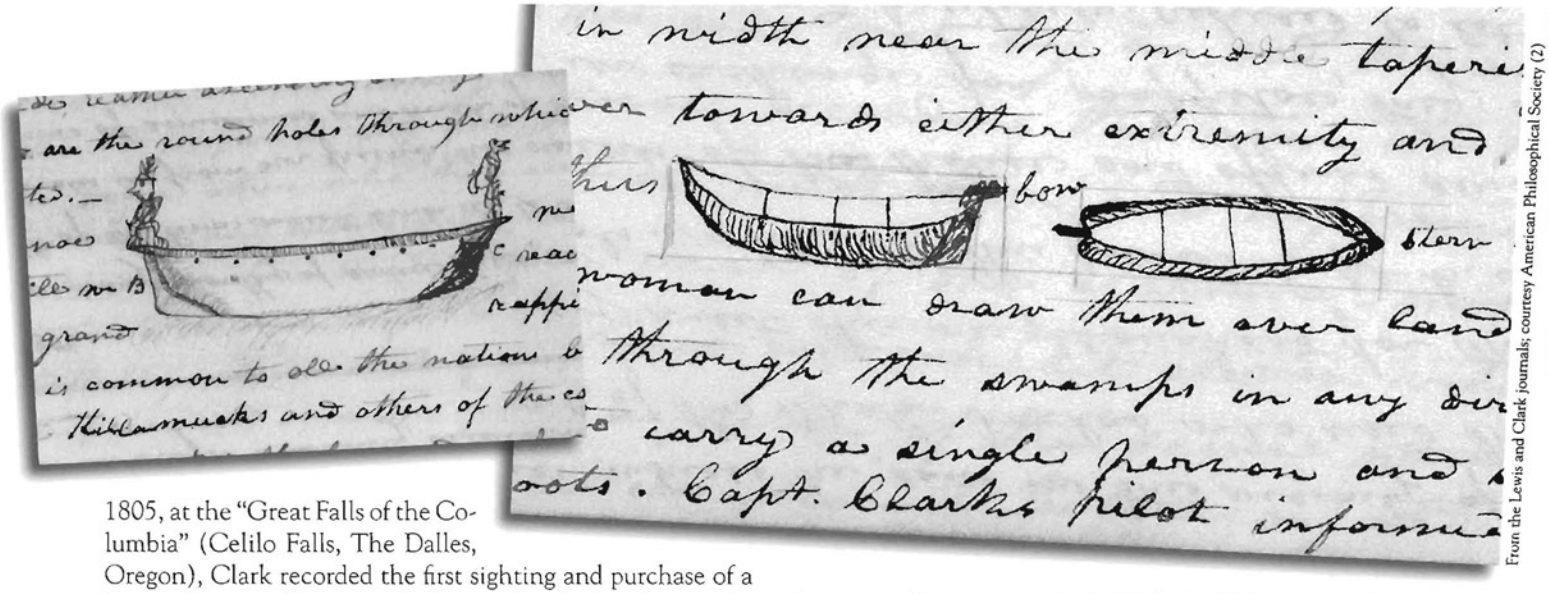
In their journals both Lewis and Clark described and illustrated in detail the different types of canoes used by the coastal tribes. The classification of various watercraft the corpsmen themselves used on the Columbia River has, however, been much debated. The source of the confusion goes back to the varied, nonspecific terms the journal writers used in reference to their watercraft. Lewis sometimes called all the Columbia River vessels canoes; at other times he referred to the dugouts as "perogues" and the Indian-made vessels as canoes. Clark, on the other hand, referred to all watercraft as canoes, even when copying Lewis's journal entries in which he used the term "perogue." Other journal keepers on the expedition did not clarify their terminology either; they merely used the adjectives "large" and "small" to differentiate between the two types of vessels.

Regarding the acquired Indian canoes, the captains again failed to provide detailed descriptions of any of these vessels. On October 23,

Courtesy United States Army

***LEFT:** Replica of Lewis and Clark's keelboat, which could be powered by wind as well as oars, has a one-pounder cannon mounted on the bow. The expedition also used two pirogues, one with a red hull and one with a white hull. Part of the replica "red pirogue," with its smaller mast, can be seen moored to the port side of the keelboat.*

OPPOSITE PAGE: Detailed sketches and complimentary descriptions by Lewis and Clark *reflect the captains' interest in Indian canoes.*



From the Lewis and Clark journals; courtesy American Philosophical Society (2)

1805, at the "Great Falls of the Columbia" (Celilo Falls, The Dalles, Oregon), Clark recorded the first sighting and purchase of a Chinook canoe. He wrote: "I observed on the beach near the Indian Lodges two Canoes butifull of different Shape & Size to what we had Seen above...." He went on to report that Lewis traded their small dugout, a hatchet, and a few trinkets for a canoe of Indian manufacture. Originally he described it as a "large" canoe but later referred to it as "small"—probably after having observed much larger types of Indian canoes.

At Fort Clatsop on February 1, 1806, Lewis described the various coastal canoes he had seen. His brief dissertation gives us clues about the types of canoes the expedition probably acquired from the Indians. One of these was very likely a freight canoe—the workhorse of native transportation. This cutwater vessel was not the large Chinook canoe that symbolizes native culture on the Northwest Coast; the 25- to 35-foot-long craft was light enough to be portaged by four men and had a distinctive 1-inch-thick cutwater stem board that projected 9 to 10 inches from the bow keel. Constructed by Chinook craftsmen from a single cedar or fir log, the craft was sculpted with a graceful curve to the bow and a sharp cutwater board; its 1- to 2-inch-thick hull was flat in the middle and stern. The shallow vessel, with its rounded, gradually ascending stern, was wonderfully stable in rough water and maneuverable in shallow water. The sharp rake of the bow stem also facilitated beaching and allowed the canoe to be easily backed off sandbars. The versatile freight canoe was the most common Indian canoe in use on the lower Columbia.

Lewis and Clark purchased their first Indian canoe above the "Great Rapids" (Cascades of the Columbia, Cascade Locks, Oregon), which proved a barrier to the larger Chinook canoes in use upriver. The smaller freight canoe was light enough to be portaged around the falls and remain in service on the Columbia River and its tributaries until the party reached Celilo Falls. This vessel's capacity also indicates that it was a freight canoe of native manufacture. Easily maneuvered by two or three paddlers, it could carry ten to twelve people or a heavy load of cargo. On November 12, 1805, Clark wrote: "3 men Gibson Bratten & Willard attempted to go round the point below in our Indian canoe...." Lewis and five others also used the Indian canoe for reconnaissance while searching for winter quarters because the dugouts could not proceed in the high wind. These two episodes make it apparent that the Indian canoe could be maneuvered by three corpsmen and had the capacity for at least six men with their baggage. Obviously the Indian canoe purchased by the captains was not one of the larger Chinook canoes.

In the mouth of the Columbia River and up to the Cascade Rapids, the distinctive style of the large Chinook canoe identified its makers. It got its name from Anglo-Americans who saw the canoe among the lower Columbia River tribes. However, the Nootka Indians on Vancouver Island made the big canoes and sold them to other coastal tribes. Skilled craftsmen specialized in making this type of canoe from the big cedars that grew in their homeland. (For a description of the Haida canoe carving process, see *COLUMBIA*, Winter 2006-07, 25.)

The 20- to 40-foot-long Chinook canoes, with a beam of 2.5 to 3 feet, were built with a cutwater bow from a single log. The overhang of the elongated cutwater bow spread the oncoming water to breast the waves and cut through them like a wedge. A curved bow projection was made of a separate cedar board fastened to the canoe, giving the canoe its distinctive silhouette and sharp, vertical stern. The stern was designed for landing; in situations where waves caught the canoe from behind, the paddlers had only to turn it around and bring it in backwards. The canoe's hull bulged slightly on both sides of the flat keel before rising 2 to 3 feet to the gunwales. The design of the rounded edges on the gunwales varied with the place of manufacture. Lewis noted that the gunwales folded outwards about 4 or 5 inches, forming a rim to the canoe that prevented water from splashing inside. With its tall curved bow, decorated with carved figures and inlaid shells, the ornamentally painted vessel identified it owners as the lords of native commerce on the Columbia River.

Another craft of native design that neither captain had ever seen was the huge double cutwater canoe. This larger version of the Chinook canoe was given its distinctive appearance by the large carved totems affixed to bow and stern. Fashioned with cutwater boards, these projections sometimes rose to a height of 5 feet. The beam was up to 6 feet across and some of the larger versions were 50 feet long. Propelled by a dozen paddlers, it had the capacity to carry four to five tons of cargo or from 20 to 30 people; thus its appellation—"war

The expedition's rough-hewn dugouts were hard to maneuver in the swift spring runoff and troublesome in passing rapids and falls.

canoe." Lewis and Clark were so impressed by it that each of them illustrated this large seagoing vessel in their journal descriptions of the different styles of locally made canoes.

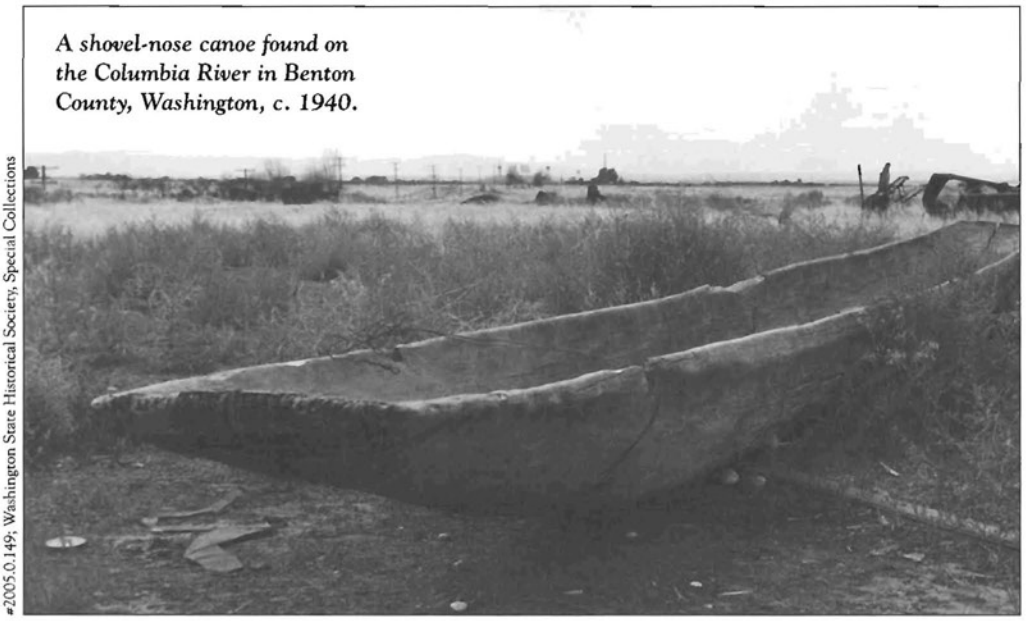
Indian canoes varied greatly in shape and size, according to their particular purpose. Styles and specialties varied enough from nation to nation that the practiced eye of a native could discern these differences even from a distance and thus determine the tribal affiliation of a canoe's occupants. Their vessels had to negotiate a wide variety of water conditions: some were designed for use on the open ocean; others remained in rivers and bays. Most Indians in Washington used the shovel-nose canoe, except for the Chinook tribes on the Columbia River and the Indians of Puget Sound. The river dwellers of Oregon used them exclusively, and the adaptable craft was employed far into California.

Unlike the cutwater canoes designed for rough waters, shovel-nose canoes were ideal for river and still-water travel. A specialty of upriver natives on the Columbia River, this type of canoe was built for sliding over sandbars, passing shallow rapids, and being poled and pushed through drainages clogged with logs. Fashioned from a single cedar log, 15 to 20 feet long, the hull was shaped to a thickness of about three quarters of an inch. It was shallow and flat-bottomed, with a sharply undercut bow and stern that were cut straight across—like a shovel. The hull bulged slightly from the flat keel rising to straight sides that did not have curved gunwales. Maneuvered by two or three paddlers, the shovel-nose canoe was the most common type of Indian watercraft on the Columbia River and its tributaries above Celilo Falls. A variation of the shovel-nose canoe had a platform carved on the bow where a fisherman could stand to spear fish while the paddlers sat in the middle of the craft.

Lewis and Clark also described and illustrated canoes that were employed for fishing, hunting, and the gathering of water plants. Hunting canoes, 10 to 15 feet long, were constructed with a cutwater bow and rounded stern. Similar in style to the freight canoe, the river hunting craft was designed for one or two paddlers hunting in the large Columbia River estuaries. A smaller river canoe, 8 to 10 feet long, could ascend rivers and creeks and be portaged to ponds. Different tribes constructed this type of canoe with either a round or shovel-nose bow. Clark described this type of canoe but did not observe one other style of canoe used by Pacific Northwest coastal tribes: an 8- to 10-foot vessel with a cutwater bow and stern, designed for one or two hunters on the open sea.

The captains regarded the Pacific Northwest Indians as the best canoe handlers in the world. When navigating their large cutwater canoes, the steersman sat in the stern while the others sat in pairs, working in unison to propel the vessel forward with their yew or maple wood paddles. Kneeling in the bottom of the canoe with their backs against the cedar bark padded thwarts, they would lean against rough water, throwing the canoe to one side, and with each powerful stroke of their paddles forced the water under the canoe to increase equilibrium. Some tribes were known to employ slaves as paddlers in the larger canoes. When it came to handling the smaller canoes, women were as skilled as the men.

In 1806 the exploring party returned eastbound up the Columbia River in five Indian canoes. Without these canoes they would have had a much more difficult time. The expedition's rough-hewn dugouts were hard to maneuver in the swift spring runoff and troublesome in passing rapids and falls. The Indian canoes, much lighter and designed for rough water, enabled them to transport their cargo upstream and portage around the rapids and falls. Eventually, the Columbia River became too difficult to navigate, even with the Indian canoes, which the captains ended up selling or cutting up for firewood.



A shovel-nose canoe found on the Columbia River in Benton County, Washington, c. 1940.

#2005.0.149; Washington State Historical Society, Special Collections

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***COVER:** Maggie Jim and her daughters Arita and Rosita witness the inundation of Celilo Falls on March 10, 1957, after completion of The Dalles Dam. Many Indian people recognized the solemnity of the occasion by dressing in full regalia. An estimated 10,000 people came to watch as the reservoir behind the dam rose over the rapids and falls where Indians had fished for centuries. (J. W. Thompson photo; courtesy Maryhill Museum of Art)*