

KAYAKS OF HOOPER BAY, ALASKA

by

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Abstract

The use of the kayak as a major subsistence tool in the Yukon/Kuskokwim delta area of Alaska has declined almost to non-existence. As the last kayak-using community of any import in this area, Hooper Bay provided a recent, last live look at some of the subsistence techniques that depended on the kayak and, through informant recall and the actual construction of a fullsize kayak, at other features of the kayak complex as it once existed. Reasons for the decline in kayak use are suggested and directions in which modern subsistence techniques are heading are illustrated.

Résumé

L'utilisation du kayak comme principal instrument de subsistance dans la région du delta du Yukon/Kuskokwim en Alaska a presque disparu. En tant qu'ultime communauté d'importance à utiliser le kayak dans cette région, Hooper Bay constitue un dernier exemple qui a permis d'observer les techniques de subsistance dépendant du kayak. En faisant appel aux souvenirs des informateurs et en procédant à la construction d'un kayak de dimension réelle, il a également été possible de retrouver d'autres aspects d'un système périmé dans lequel le kayak constituait un élément fondamental. L'auteur propose une explication de son déclin et décrit l'orientation que prend les techniques modernes de subsistance.

During my current long-term study of traditional skin kayaks, I was determined to observe and document a viable kayak complex *in situ*. This was necessary in order to provide some cultural context to my readings of the literature and study of museum collections. The only place left to do this in all North America is in a small area of the Yukon-Kuskokwim Delta region of

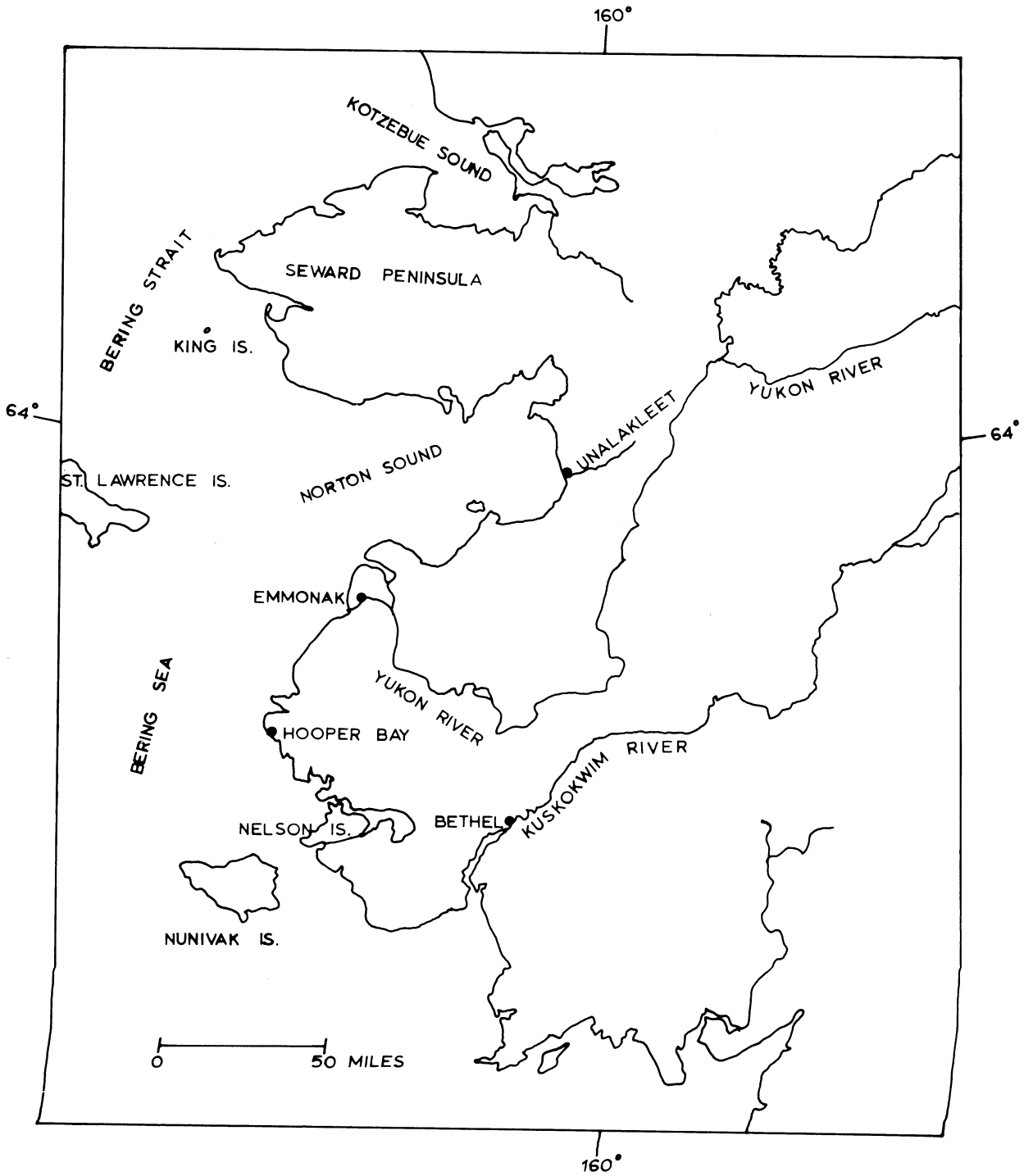


Figure 1. Southwest Alaska.

South Alaska. In the Fall of 1976 I traveled to Hooper Bay, Alaska, had a kayak constructed by a local specialist, studied some of the present uses of the kayak and collected memory data on all aspects of the kayak complex for pre-World War II, that is, pre-intensive contact times.

This paper presents a brief look at the traditional roles of the kayak in the Yukon-Kuskokwim Delta region and compares it with the current practices noting the changes. An explanation for the differences is offered as is a prognosis for continued kayak use.

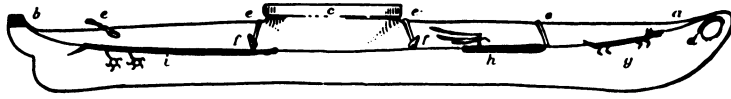
In 1930 Edward Curtis wrote that "The kaiak (*kaiyuh*) is the most important craft of many of the Alaskan Eskimo, for by means of it the livelihood of the people is chiefly obtained" (p.12). The kayak was the cornerstone of Eskimo society in the Yukon-Kuskokwim Delta area in a number of ways. Not only was it the means by which certain biological needs of the people were satisfied, it also was the basis for obtaining wealth and women. Margaret Lantis said that wealth among the Nunivak Island Eskimo was a consequent of giving away goods which depended on being a good hunter which in turn depended on having a kayak and being a good kayaker (1946:158). A man could not get a wife if he was unable to support her and without a kayak he could not do so.

I should note at this point that the major sources for knowledge of traditional Eskimo culture in the Yukon-Kuskokwim Delta area, Nelson (1899), Curtis (1930) and Lantis (1946), are based mainly on studies of the Nunivak Island Eskimo. These people had developed a generally more complex ritual life and material culture than either mainland coastal or inland groups. There were also dialect differences that set them apart, yet they were closely allied with the Nelson Island people and often with the Hooper Bay area people as well (Lantis 1930:306). For the most part then, Nunivak activities and rituals had their counterparts on the mainland coast though somewhat less elaborate. Some differences in availability of local resources account for some of the variations, but the kayak complex as a whole was generally similar for all coastal Yukon-Kuskokwim Delta Eskimo.

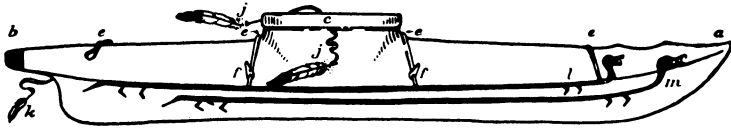
I use the word *Eskimo* advisedly as the term *Inuit* is reserved for those Eskimos in Greenland, Canada and Alaska south to Unalakleet in Norton Sound. The others in South Alaska and most of Siberia are Yupik-speaking calling themselves *Yuk* (s.) or *Yuit* (pl.). and their language *Yuktun*. The two Eskimo languages are mutually unintelligible although many individual words are similar.

When looking at the design features of Arctic kayaks, two general types are noted; a) those designed for inland use in spearing caribou as they cross lakes and rivers, and; b) ones used for pursuing marine mammals in the sea. Of these latter sea-going kayaks, a number of design constraints are inherent. The vessel must be capable of pursuing sea mammals either through speed or stealth. Few are designed for speed, but all can be maneuvered silently. The kayak must be able to return with any game captured and this is done variously through towing, as in Greenland, by carrying the unbutchered animal on the deck, as in Eastern Canada; and by stowing the cut-up carcass inside the vessel as in the Bering Strait and Bering Sea area of Alaska.

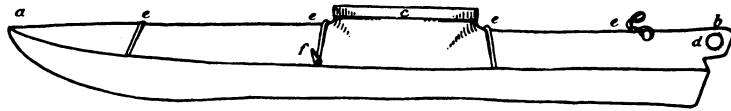
Of course the craft must be seaworthy. This was solved in Greenland by



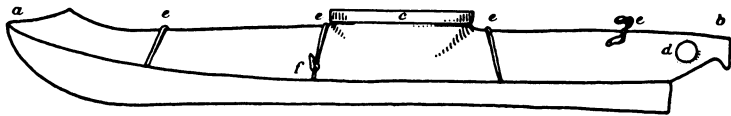
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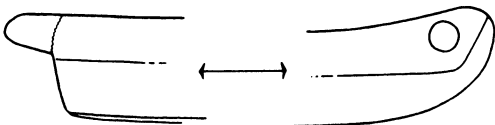
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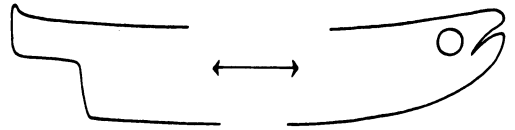
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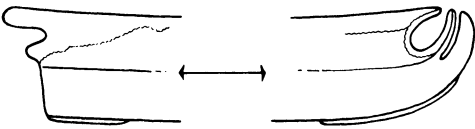
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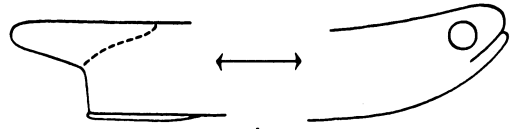
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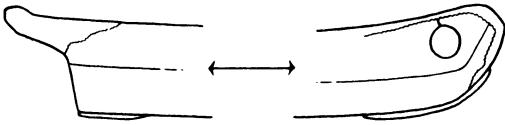
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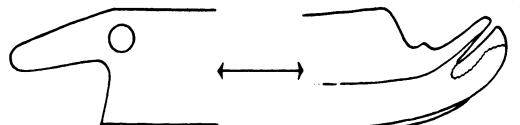
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Figure 2. Kayak bow and stern variations on Nunivak Island (A-D from Curtis 1930:14 and E-J from Lantis 1960:85).

making the man and his kayak virtually one -- the kayak was fitted around the man who was given extensive training from an early age in over a dozen ways to recover from a capsize or, in some cases, to purposely capsize to avoid breaking waves and then recover when the danger was past (Birket-Smith 1971:94). In the Eastern Canadian Arctic the kayaks were made broad and flat-bottomed, a design that insured tremendous initial stability obviating the need for capsize/recovery techniques. In Alaska the kayaks in the Bering Sea region are broad and deep, but with rounded bilges and flattened, but not flat, bottoms. The extreme beam of these kayaks gave them excellent stability and, combined with a sealable waterproof gut-skin parka and one or two recovery techniques, made them very seaworthy.

It is apparent that many groups achieved the same ends, but through a number of design changes that are really compromises. The Nunivak Islanders were somewhat free to innovate in kayak bow and stern design, unlike the other Y-K people who had a fixed hole in the bow and straight extending handgrip-type of stern. I was told however, by a Hooper Bay informant, that the kayak of one man in the community had a noticeably smaller hole in the bow because he was from a different community.

Despite these surface differences, there is a great amount of design uniformity because of the kayak's major use in seal hunting during the ceremony-laden spring hunt. Use of the kayak in open leads and on and off ice floes necessitated a craft with much storage space inside to carry game. This was accomplished by making the kayak rather wide with a thirty inch maximum beam not uncommon making it the widest Eskimo kayak found anywhere in the Arctic. Space was also increased by a high deck ridge (see figure 3) which incidentally helped shed breaking waves. An average length just over fifteen feet was almost the smallest found among Eskimo kayaks, but this was said to handle better in heavy seas than a longer vessel. The wide cockpit facilitated storage of game and also allowed two people to ride back to back with ease. Lantis records a myth in which the passenger acted as a bow and arrow-equipped tail gunner during a war raid (1946:306).

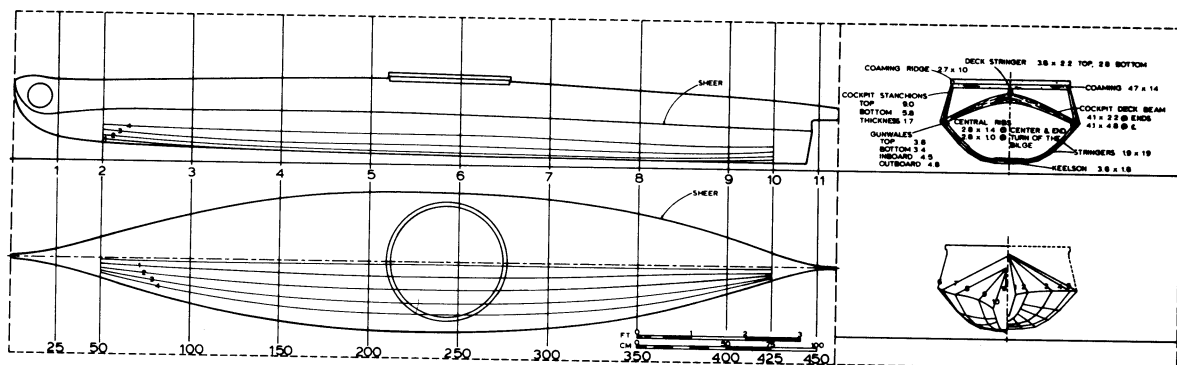


Figure 3. Hooper Bay kayak lines and construction details

A small sled was an important kayak accessory and was used to haul the kayak to the floe edge and over ice floes. When not in use it was stowed on the deck. The foredeck carried extra paddles, gaffs, and a great variety of specialized spears, darts and harpoons for use against different seals and waterfowl. The hunter wore a gutskin parka cut more fully than a

woman's to allow it to be sealed with a tie around the cockpit coaming. Sealskin formed the underarm part of the parka to prevent its chafing through from constant rubbing on the cockpit coaming while paddling. The parka was sealed tight around the face with a drawstring and fishskin mitts with sealskin palms had their long cuffs tied tight over the parka sleeves. Thus equipped a paddler could capsize and remain dry except for his face. The ability to right oneself after a capsize was reported for this area, but Hooper Bay informants could not remember this as being possible or important.

Bearded seal stomachs with a fine mesh grass covering were carried inside as a type of canteen. In rough seas these could be emptied, inflated with air, and shoved in the kayak ends to act as extra buoyancy chambers should the kayak fill with water. Also inside the kayak was a wooden slat seat on top of a woven grass mat which helped keep dirt from working down between stringers and cover where it could chafe through. Another grass mat was carried inside to use as a windbreak when cutting up a seal on an ice floe. It could also be used as a sail when two kayaks were tied together. A kayak sled was put crosswise over the foredecks and the mat secured to it in front.

Because the kayaks of this area became so broad and deep it made use of the double-bladed paddle difficult and consequently it was only used for speed -- possibly from a kneeling position. Kneeling and occasionally standing were paddling positions used with the single-bladed paddle as well. A short paddle was used to scull the kayak to within harpooning distance of sea mammals. It could be noiselessly operated with one hand on the side away from a dozing animal with a weapon held at the ready in the other hand.

Other than its use as a sea mammal hunting tool, the kayak was used to spear waterfowl from, to fish from, to race in, to gather firewood with, for women to occasionally use to go clamming, as a means of transportation of goods, and as a ferry to take people across bays, streams and rivers. One informant reported seeing six people in a kayak crossing a stream -- two in the cockpit sitting back to back, one prone in the forward hull, one prone in the after hull, and one each prone on forward and after decks.

Although kayak skin covers seldom lasted more than a season, the frame was good for many years if kept in proper repair. New kayaks were built piecemeal during late winter or early fall. Curtis described the process in detail as he saw and heard it in 1927.

Their construction takes place with ceremony in the men's house, usually under the supervision of some old man well skilled in boat-making. The men measure and cut each individual part of the wooden frame according to a prescribed system based on the length of various members of the body or a combination of such members. Thus each man's kaiak is built according to the specifications of his own body and hence is peculiarly fitted to his use.

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After each part is meticulously made according to measurement, the frame is put together with lashings of rawhide. The workmanship must of necessity be fine, because no cutting with edged tools may be done once the

parts are finished and are being joined. The measurement of a typical Nunivak kaiak showed a length of fifteen feet over all, a beam of three feet, and a manhole thirty inches in diameter.

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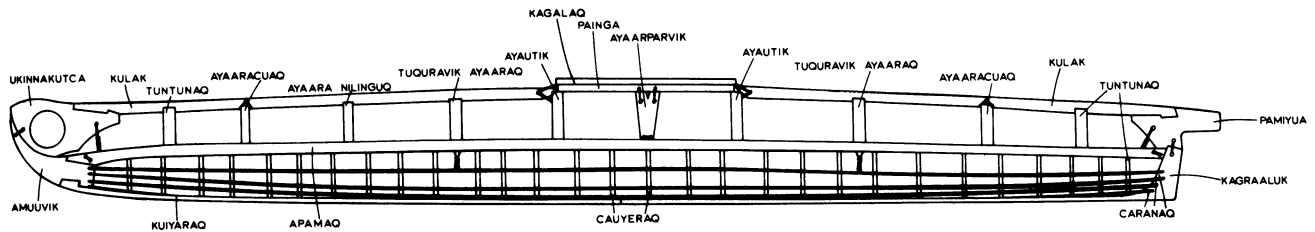


Figure 4. The parts of the Hooper Bay kayak frame and their names.

The night after the lashing of the kaiak frames is completed, the women gather to cut sealskins to size for the coverings, three thick and heavy hair-seal skins for the bottoms and sides, and two spotted-seal skins for the lighter decking. As they work, the women wear waterproof parkas, which are believed to prevent any evil influence from entering or afflicting the new kaiaks. After the cutting is finished, the women prepare food for the men.

The following day, while the women, dressed as before, are sewing together the skins, the kaiak owners sit before the bows of the completed frames and sing their hunting songs in an almost inaudible tone, since these songs are both sacred and secret. Kaiak owners often have their sons beside them to learn these chants, which descend from father to son. After the singing, when the hides are nearly sewn, each wife brings to her husband a new wooden dish of fish or berries. Stripped to the waist, he throws a portion of the food to the floor as an offering, and prays for good luck during the coming hunting season. He then gives the food to the oldest man present (often the one who has supervised the kaiak-making), who distributes it to all the men at hand. The owner then walks once about the kaiak frame, pretending to carry a lighted lamp. Next he motions as if to shove a lamp underneath the bows, that seal may see and approach his kaiak as he hunts.

As the last flap, on the after-deck, is sewn, after the frame is shoved into the completed covering, the now naked owner, accompanied by all the men present, sings his childbirth song to his new kaiak. The owner washes the cover with urine to remove any oil that may adhere to the surface, and rinses it in salt water. He then hauls his craft through the smoke-hole of the house and

rests it in the snow, which will absorb dampness from its surface. Later he puts the kaiak on its rack and drapes over it his talismans, strung on belts, which are later to be kept in the kaiak. Here it remains a day and a night. Then at night he carries the craft to the ice where he sings his hunting songs, sacred only to him and to his family. Outside in the freezing weather the skin coverings bleach white. As soon as each new kaiak is finished, the owner performs his ceremony.

On returning to the men's house, the owner dresses in new parka and boots, and, grasping a bunch of long grass fibres, makes motions of sweeping toward the entrance. By this action he brushes outside any evil influence or contamination from his kaiak, the covering which has been made by women (1930:12,13,15).

An even greater number of taboos and ritual observances accompanied the annual spring seal hunt (see Lantis 1946:193,194; 1947:38-40,42-44; and Curtis 1930:71-73). This occurred both before the hunt, after the move had been made to the spring camp, and after the first *makhlaq* or bearded seal had been killed. Catches of other seals were not important and only the bearded ones were included in a yearly total of seals caught.

In her 1940 visit to Hooper Bay, Margaret Lantis reported sixty-three kayaks in a population of 360 people (1946:164). Today, with over twice that population the number of useable kayaks has dwindled to less than a dozen and all of these appear to have been made ten to twenty years ago.

When I arrived in Hooper Bay I was fortunate to find sixty-nine year old Dick Bunyan who was a skilled kayak-maker with over twenty kayaks and two umiaks to his credit. He agreed to construct a kayak frame for the National Museums of Canada from traditional materials, i.e., driftwood, using intermediate technology consisting of a few modern hand tools plus steel-bladed traditional items such as an adze and curved carving knife. I arrived in Hooper Bay on a Friday and the next day Dick started working on the kayak.

He selected a large stump from a pile he had gathered in back of his house and, using an axe and wooden wedges, split it into pieces that would be suitable for the curved deck beams of the kayak. He explained through an interpreter that maximum strength was obtained by having wood with a grain that was already curved the way the finished piece would be. I too, set immediately to work filming, photographing, measuring and recording all relevant details of the construction and continued this routine every day for the next month until the frame was completed.

Dick Bunyan did not observe any of the taboos or rituals described by Curtis and Lantis and did most of the building in his house since the men's house had burned down in 1975. He did mention that perhaps the National Museum of Man should sponsor a sort of christening party for the newly completed frame. Two actions during the building remain unexplained. Most straight parts, especially the gunwales, keelson and deck stringers have shallow full-length grooves carved in them. The explanation from Dick Bunyan was that "we always put them there" and indeed they are found in one form or



Figure 5. Dick Bunyan splitting a driftwood stump for kayak deck beams.



Figure 6. Dick Bunyan and Aloysius Hale pulling stringers (caranaq) down to final placement.

another on all kayaks from the Bering Strait south. Another feature of the kayak building that received the same explanation was the red paint that was put on all parts. The paint is a type of red ocher rock from Nelson Island that is first powdered, then mixed with a bit of water and applied to the kayak parts by rubbing it on with a cloth.

The most recently built kayaks of the last twenty years or so have been covered with canvas instead of sealskin and have had rib/stringer junctures fastened with clenched nails instead of the traditional transverse sinew ties.

When locally made flatbottom wooden skiffs powered by one and sometimes two outboard motors became common after the 1940s, the kayak lost some of its functions. The skiff took the place of the umiak and usurped the kayak's seal hunting functions during the open water season.

Today the kayak is infrequently used for winter and early spring seal hunting when the skiff cannot easily maneuver among the ice. The kayak has become a tender to the skiff for other activities.

In the fall of 1976 I accompanied a man by skiff to a section of Hooper Bay where nets were set to catch whitefish. The kayak was carried inside the skiff until we reached the fishing grounds where it was put in the water carrying a gill net stored on the foredeck. The kayak was paddled to a nearby spot in the shallows and the net set by driving two end poles into the surf bottom. The fisherman returned to the skiff and came on board leaving the kayak still in the water. He scanned the area for seals for about twenty minutes and then returned to the net by kayak to check for fish. A number of other fishermen in the area were following the same procedure until a lone seal was sighted sending the skiffs in pursuit at top speed. They surrounded the seal and took pot shots every time it surfaced. When it came up for air in a distant location all skiffs raced away to again surround the animal. Eventually the seal was killed and the excitement over, everyone returned to the dull work of tending whitefish nets. This surround method of hunting is reminiscent of Aleut sea otter hunting techniques (Heizer 1960).

When I returned to Hooper Bay in April 1977, I accompanied Aloysius Hale to the floe-edge by snowmobile, pulling a sled with a kayak behind on a sled of its own. Aloysius hauled the sled right to the water's edge and arranged it, his paddle, and boat hook for a quick launch into the water. He then settled back against some rafted ice and scanned the area for seals with his scope-equipped rifle ready for use. Unfortunately the ice breakup was later than usual and the open water closed with the flood tide bringing an end to this type of hunting. We attempted to hunt for two days this way, but had no luck. Had a seal been spotted, Aloysius would have shot it from shore and then rapidly paddled out to retrieve it. While this form of hunting is not dangerous, it is inefficient as over half the seals sink irretrievably.

Another use of the kayak occurred up one of the many nearby sloughs on an ebb tide. The kayak and net, this time a seine or purse net, was attached to the two poles, and transported up the slough by skiff. The net was offloaded onto the kayak and the fisherman set it across the slough by again driving the support poles into the muddy bottom. The kayaker then proceeded upstream a hundred yards or so and slowly paddled back towards the net all the time

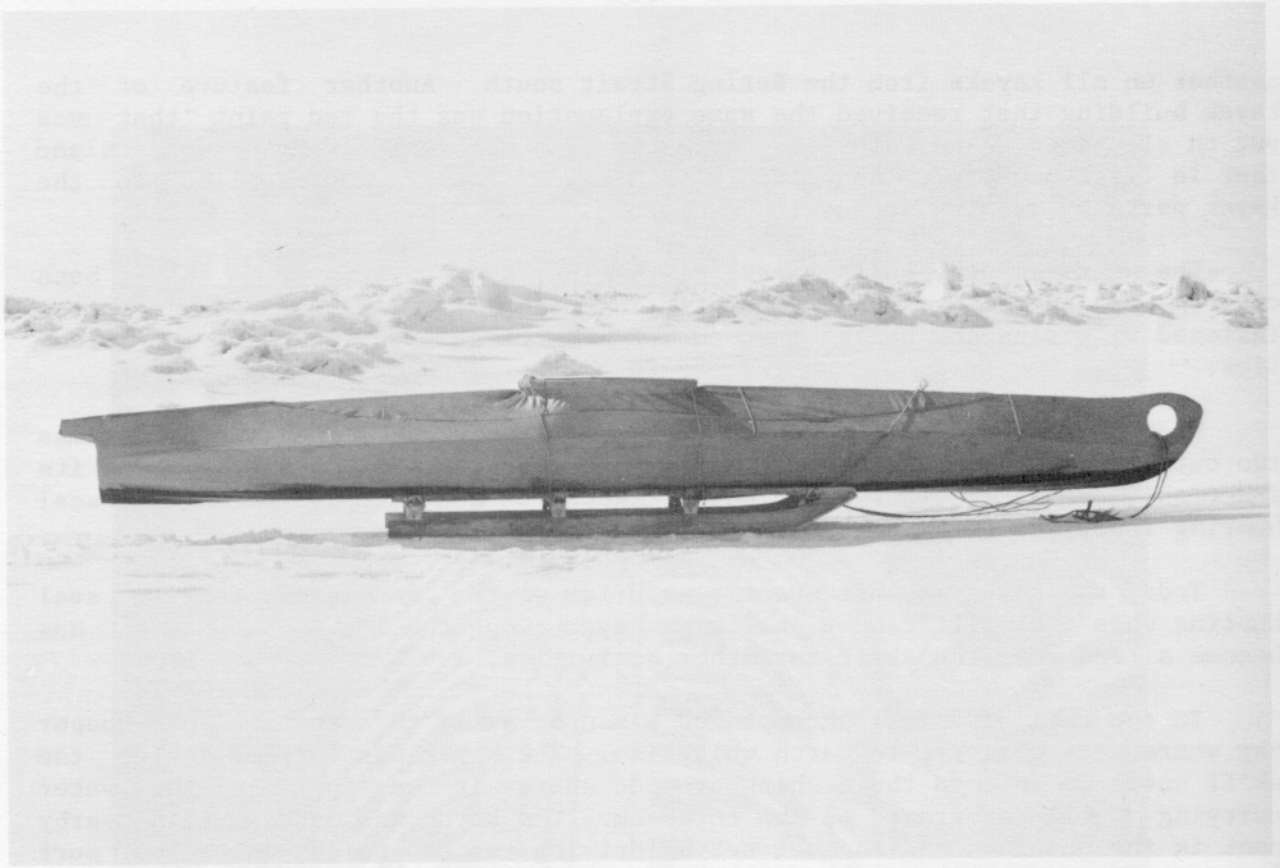


Figure 7. Aloysius Hale's canvas-covered kayak on the Bering Sea ice preparatory to spring seal hunting.



Figure 8. Aloysius Hale sighting for seals at the floe edge.

slapping the water with his paddle so as to drive the tomcod downstream into the net. When the paddler reached the net, he quickly pulled up the two poles and brought them together to close the net. The drive was so successful that the net could not be hauled into the skiff without first lightening the load.

Now other than its use as a tender for these two methods of fishing, for 4th of July races and for an occasional seal hunt, the kayak has ceased to function in any viable fashion. Many of the taboos and ceremonies surrounding the kayak complex were eliminated by the introduction of Christianity and most of its functions were supplanted by the motorized skiff. With the decline of the men's house, the ready sources of knowledge and help for kayak building became problematic too. The final reason for the decline of the kayak is that its building is very labor intensive and few people are willing or able to devote that much time when they can purchase or build a substitute or get along without.

However this is not to say that the home-built skiff is the ideal solution. It too is on its way out as fiberglass boats are more and more being sold in the Native Store despite the fact they are smaller, less rugged and not as stable. They are available ready-made and nine to five wage earners want to spend their spare time hunting or fishing, not building and maintaining wooden boats.

Even these store-bought boats have need for a tender when fishing. Various solutions have been tried other than the ideal kayak. Aluminum and wooden canoes are used by some men and others have fashioned a kind of miniature plywood-hulled skiff. All these boats are open decked, however, and not well suited for the rough waters of the Bering Sea.

An alternate solution would be for a local cottage industry to manufacture fiberglass kayaks based on the time proven traditional model. By being manufactured locally the costs could be kept down, employment would be provided for several people and an ideal craft for local needs would be saved from oblivion. The market for such a craft would encompass the whole Yukon-Kuskokwim Delta area and perhaps even a small export trade could be supported. The end-product of 2000 years of kayak design and refinement deserves a better fate than to merely sink and rot back into the land that spawned it.

Post-field work that has been a direct result of the Hooper Bay study includes scale drawings of the kayak and full-size drawings of each part (see figures 9-14). From these plans I have constructed and tested a full-size reproduction of Dick Bunyan's kayak and expect to teach a course in Hooper Bay kayak building in the extension division of a local community college. After plans and building instructions are perfected a popular booklet on how to build this kayak for use as a recreational craft will be published. More detailed technical papers are also planned including an analysis of skin boat naval architecture. Finally, the kayak frame will eventually go on exhibit in some form supported by the films, still photos and published materials.

Figures 9-13. Full size drawings (shown photo reduced) of Hooper Bay kayak parts

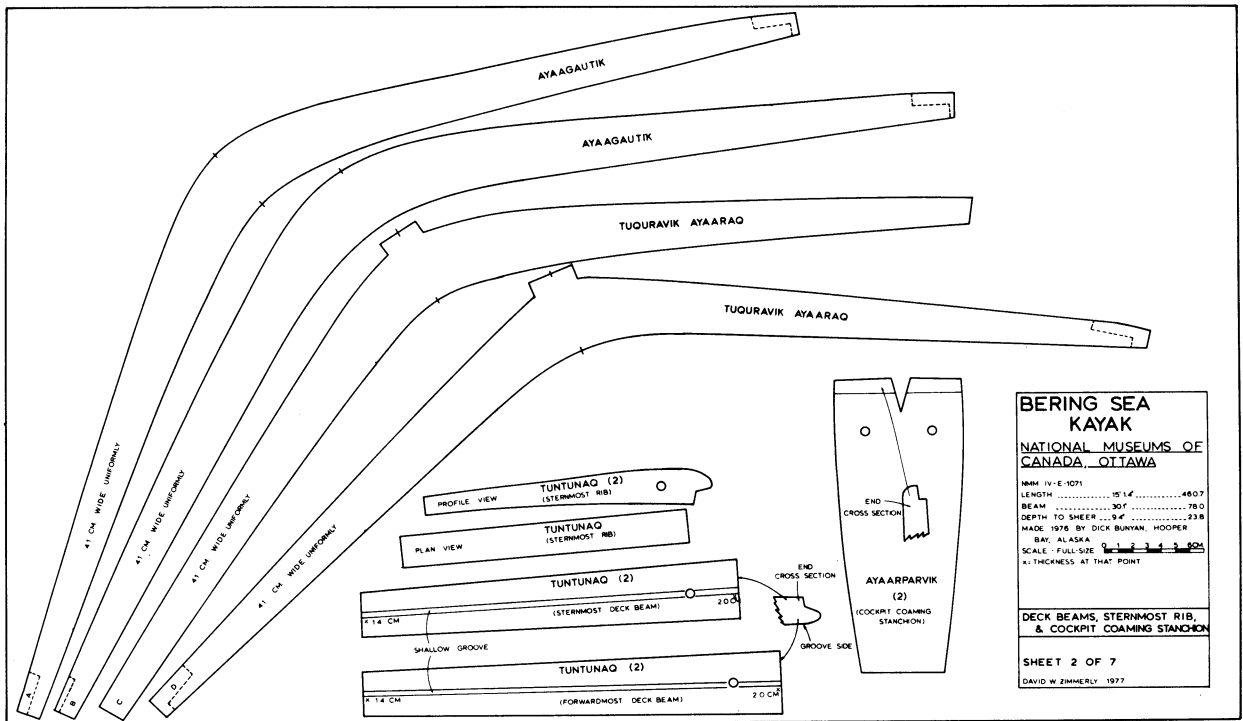


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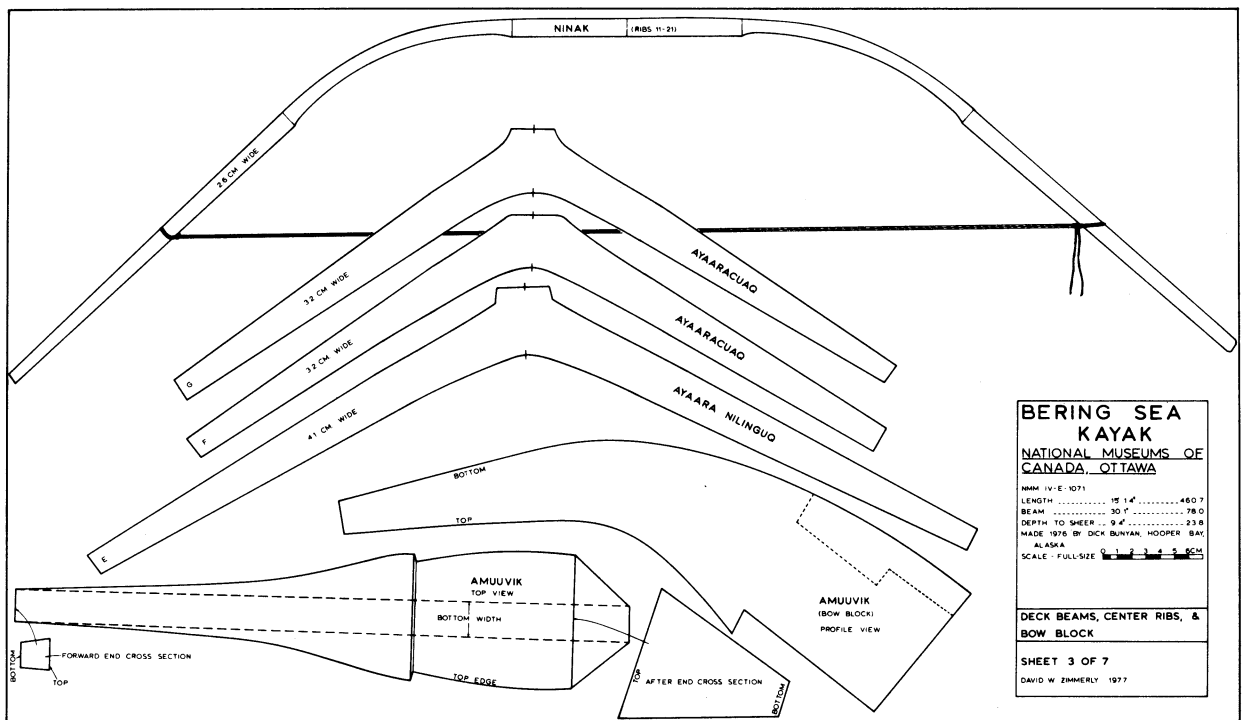


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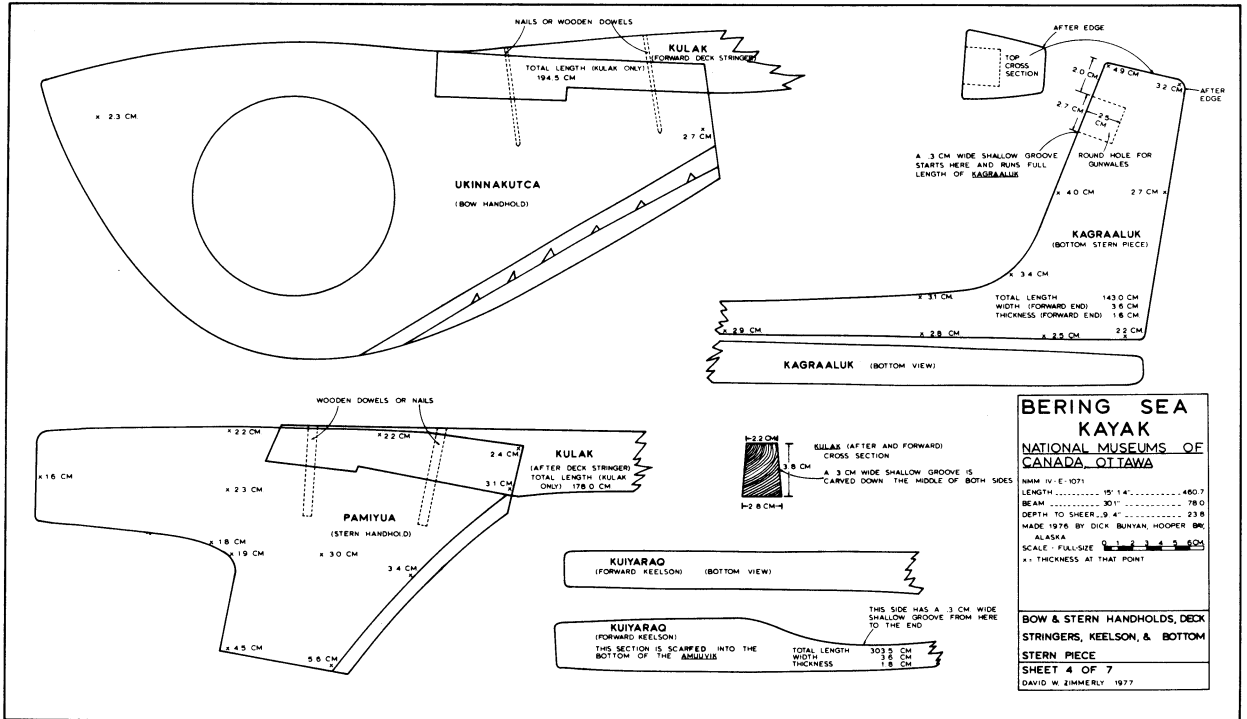


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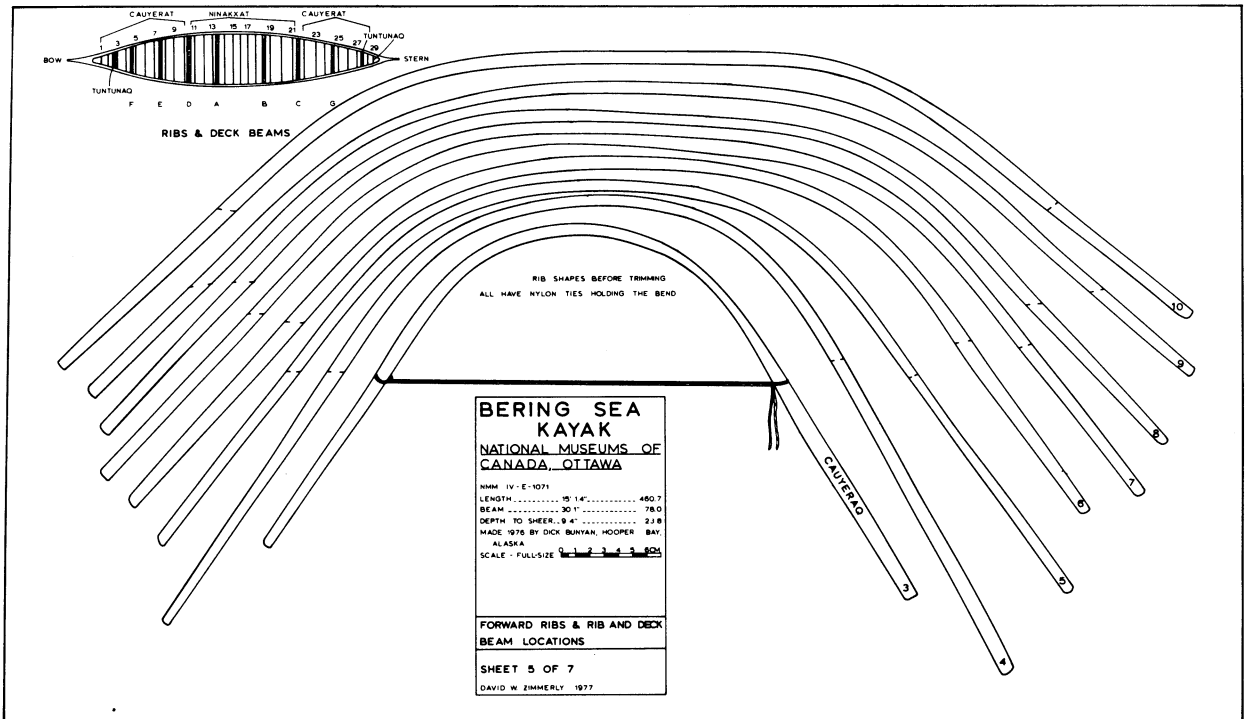


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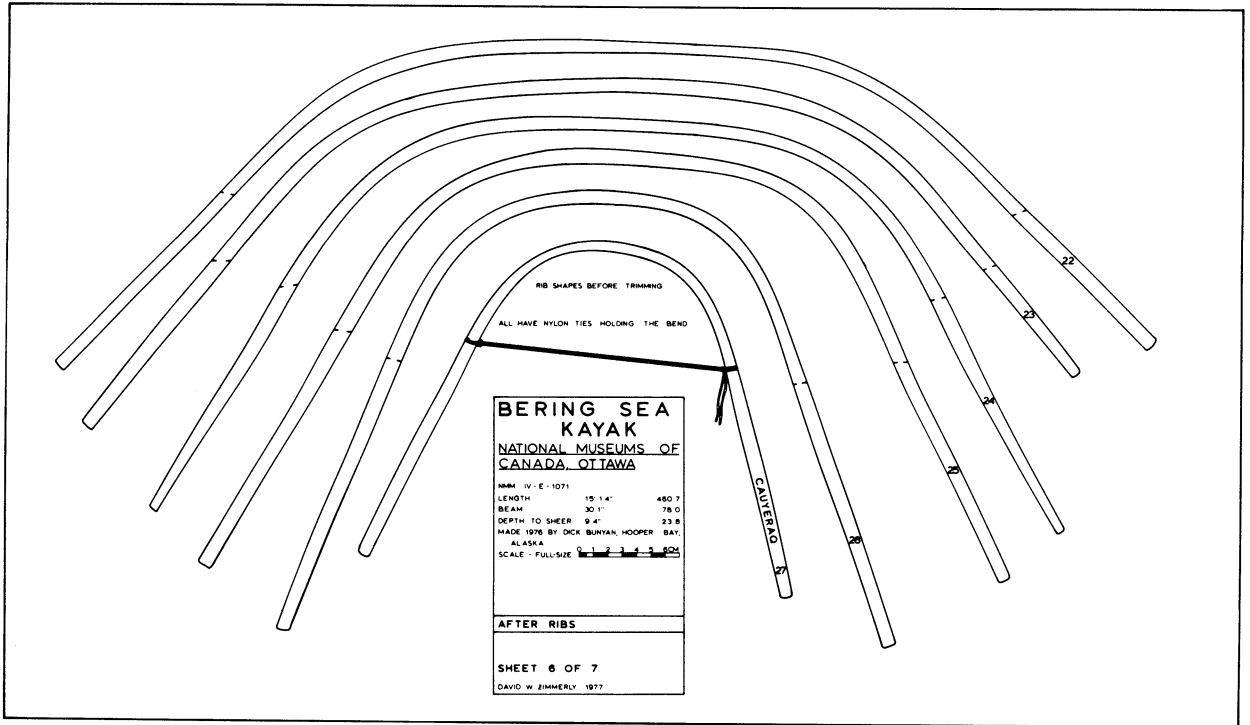


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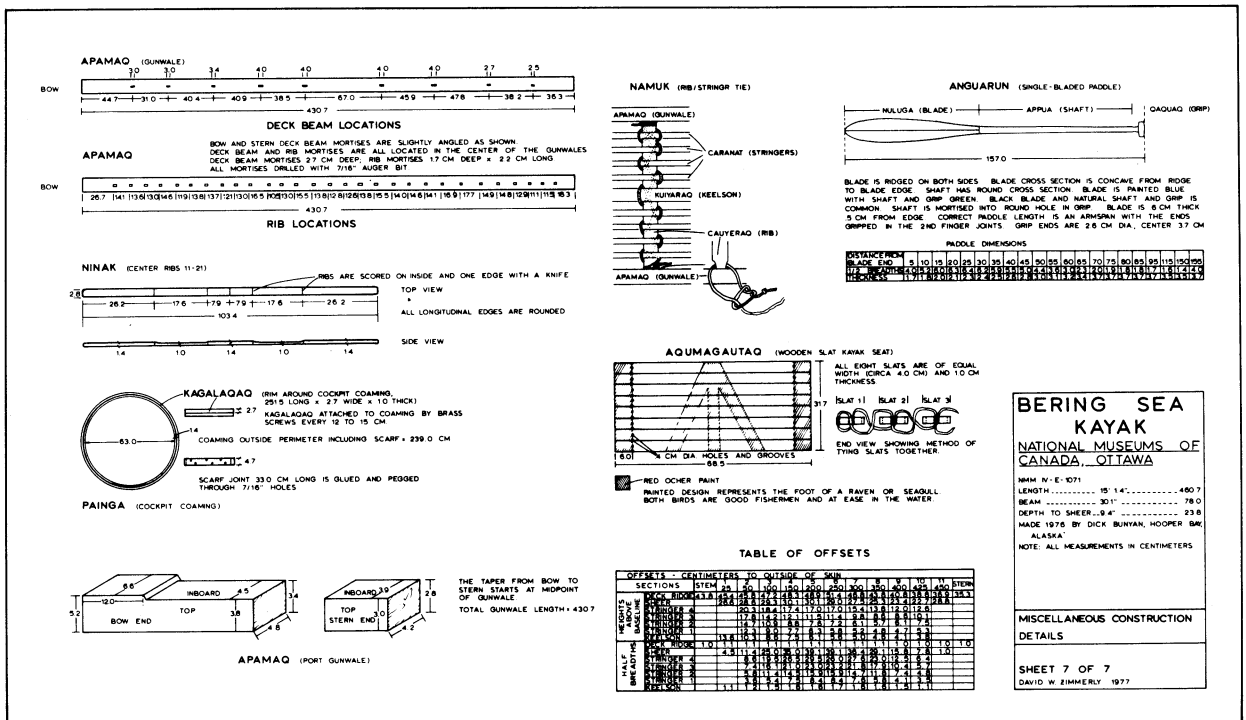


Figure 14. Scale drawings and miscellaneous parts of Hooper Bay kayak.

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