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ALASKA

73-9

by
Floyd E.
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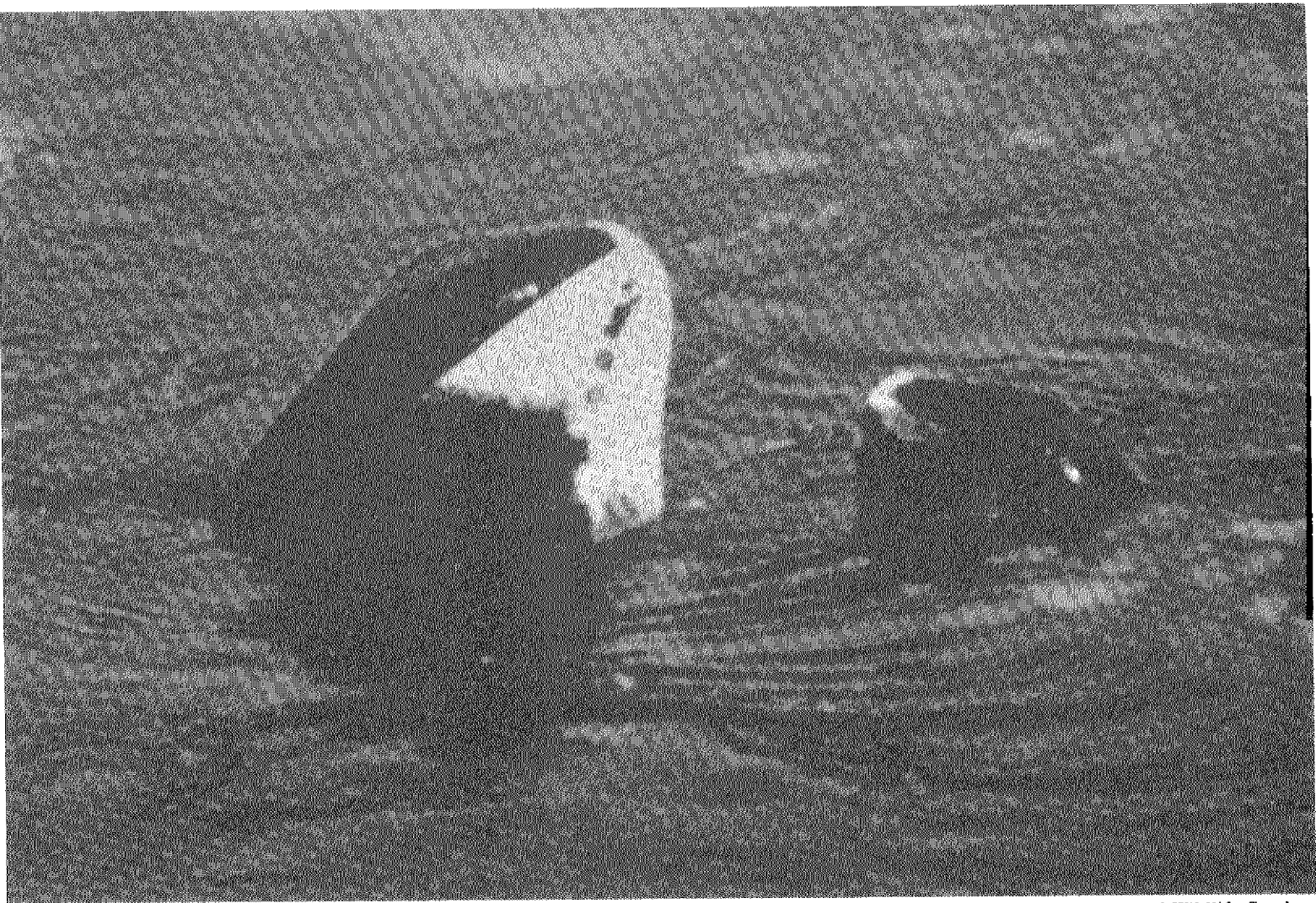
**Ancient and Current Methods
Of Taking The
Bowhead Whale**

By Dr. Floyd E. Durham

**University of Alaska
Sea Grant Program
707 A Street
Anchorage, Alaska 99501**

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The cover woodcut, "Hiyu Muktuk," depicts Eskimo whalers about to harpoon a huge bowhead. The print was created by Dale DeArmond of Juneau, a noted Alaskan artist who spent several weeks in Gambell on St. Lawrence Island during the spring whaling season of 1973.



Jack Lentfer, U. S. Fish and Wildlife Service

The rostrums of two bowhead whales protruding above the surface of the Arctic Ocean near Barrow, Alaska.

Dr. Floyd Durham, a research biologist at the Hancock Foundation of the University of Southern California, has been studying bowhead whales for the past thirteen years. He has worked with Eskimo whaling crews at Barrow almost every year since 1961, and has visited other whaling villages from Wales to Barter Island. In this paper, Dr. Durham describes the various hunting techniques used by whalers on the Arctic coast from prehistoric times to the present. He then discusses the effects of these various techniques and of international whaling laws upon the contemporary Eskimo whale harvest.

Man has been hunting whales for almost 5,000 years. Throughout the world the wealth in these magnificent creatures has been recognized and pursued. In the Arctic, the whale has traditionally been hunted by the Eskimos for food, and during the frenzied whaling days of the 19th century, by white Yankee whalers for oil and baleen.

Primitive Hunters

Considerable evidence of prehistoric whaling is available. Gregarious whales were sometimes stampeded and driven onto a beach or up a narrow inlet or fjord where they were hacked or lanced to death. In some areas, such as Japan, huge nets were devised to take even medium-sized whales.¹ The Makah Indians fixed harpoons and floats in large whales, which prevented them from diving deeper than six feet; then a member of the crew rode the whale while stabbing it.² In general, however, primitive man used harpoons with lines and floats attached to fatigue the whale, and then killed it with a lance.

The latter technique continued in general use throughout the first half of the 19th century in the commercial harvest of large, slow-moving, buoyant whales. It was used by Eskimos before they came into contact with Yankee whalers. The umiak and the kayak were the standard whaling boats of the Eskimos. They attached a barbed harpoon head of bone, ivory, or stone to a long, heavy, wooden handle which could be heaved as far as twenty feet. Some heads were ingeniously made to "toggle" (flex 90° crosswise), which prevented them from tearing out of the harpooned animal. Attached to the harpoon was a rope up to 100 feet long, made of the hide of walrus or other animal. A series of pokes (floats made from seal skins), was attached to the harpoon. The

floats, each with a buoyancy of 200 to 300 pounds,³ impeded the swimming and particularly the diving of the frantic, wounded whale. The floats also indicated the direction in which the whale was fleeing, its depth, and its point of re-appearance at the surface, where several boats usually met the whale with additional harpoons and floats. Fifteen floats were required to prevent a large whale from submerging. Its tail tendons were cut and its chest was pierced repeatedly with long-handled lances until the whale spouted blood and died. Thus the tethered, exhausted, hamstrung animal finally bled to death.

Eskimo Whalers

The whale was approached with more taboos than any other animal in the Eskimo world. The whale, it was said, would not honor unclean Eskimos with his death. It is no wonder that the Eskimos relied on chance and charm for success, considering the large size of the animal and the great dangers of the hunt. The bowhead whale (*Balaena mysticetus*), was the most important game animal to the Eskimo of northern Alaska, where a village might take twenty in a season. The success of the hunt was dependent upon the captain, whose extra sense sometimes enabled him to steer the umiak to the spot where the whale would rise. The harpooner's chances of striking a death blow were greatly enhanced if he had just spent the night with the captain's prettiest wife. The charm of the woman was thought to reconcile the whale to being harpooned, thus bringing honor to the village.⁴ The woman's contribution to insuring a whale kill was to wear her best clothes, including a brow band with ornament.

Regional variations in Eskimo techniques for taking whales has been described by several explorers, historians, geographers, and whalers.

According to Kaj Birket-Smith's comparative study of North American Eskimos, those in the Hudson's Bay area were shy of water. The men wore waterproof suits and tied floats to the gunwale of the umiak to prevent it from capsizing, and they paddled silently by standing up. The man in the bow handled the harpoon, which had a buoy and drag anchor attached. The latter was not illustrated and probably was endemic to the Hudson's Bay Eskimos. Poison, allegedly made from the fat of a human being who was secretly killed, would kill a whale when smeared on the harpoon head, or if poured in the water at the mouth of a bay, it would prevent a confined whale from escaping.

Don Charles Foote spent several years with the Eskimo whalers at Point Hope. He described traditional whaling as sticking a whale with a harpoon to which three inflated sealskin floats were attached. Other crews joined the attack, lancing the animal in the spine, heart, liver, and flipper tendons. "Present-day hunting (1959-1962) differs little except for the darting gun and shoulder gun used for killing."⁵

It is possible that the very large bowhead taken years ago at Point Hope was killed by poisoning. The almost legendary story is that a medicine man and a harpooner in a kayak approached the large whale. As the hunter threw the harpoon, the medicine man sang a song so powerful that even a prick of the harpoon would have killed the animal. The great whale died meekly, and its meat and jawbones were taken to the village. The jaws were set up at the southern "feasting ground" where one eroded stump still remains.

The eating of putrefying flesh by Siberian Eskimos continued even after white men introduced firearms. In small boats, hunters chased up the tidal channel any whale that entered a certain small, shallow bay. Frightened and possibly injured by rifle fire, the whale fled to the upper end of the bay, wedged itself under the heavy

shore ice, and drowned. When it putrefied, the whale expanded and cracked the ice. The escaping odor, particularly recognizable to dogs, identified the location of the stinking carcass, which was then chiseled from the ice.⁶

When bowheads were numerous they were taken at even insignificant coastal prominences, such as Krusenstern where the men isolated themselves physically and spiritually while whaling. They wore masks, displayed figurines, and held ceremonial dances. Following these preparations, the bowhead was harpooned from an umiak. Many harpoons with attached floats caused the whale to drown from fear or from wounds. Whales were sometimes deliberately killed by poisoning, and later the Eskimos feasted upon the putrefying flesh of the whale.

At Wales, many whales formerly were harpooned as they rose at the edge of the ice, and were hacked to death with stone lances.⁷ Across Bering Strait at East Cape, the Eskimos used long harpoon lines with six to ten pokes, floats made of sealskin, spaced twenty to thirty feet apart. The whale was killed with a lance (years later, with a bomb lance).⁸

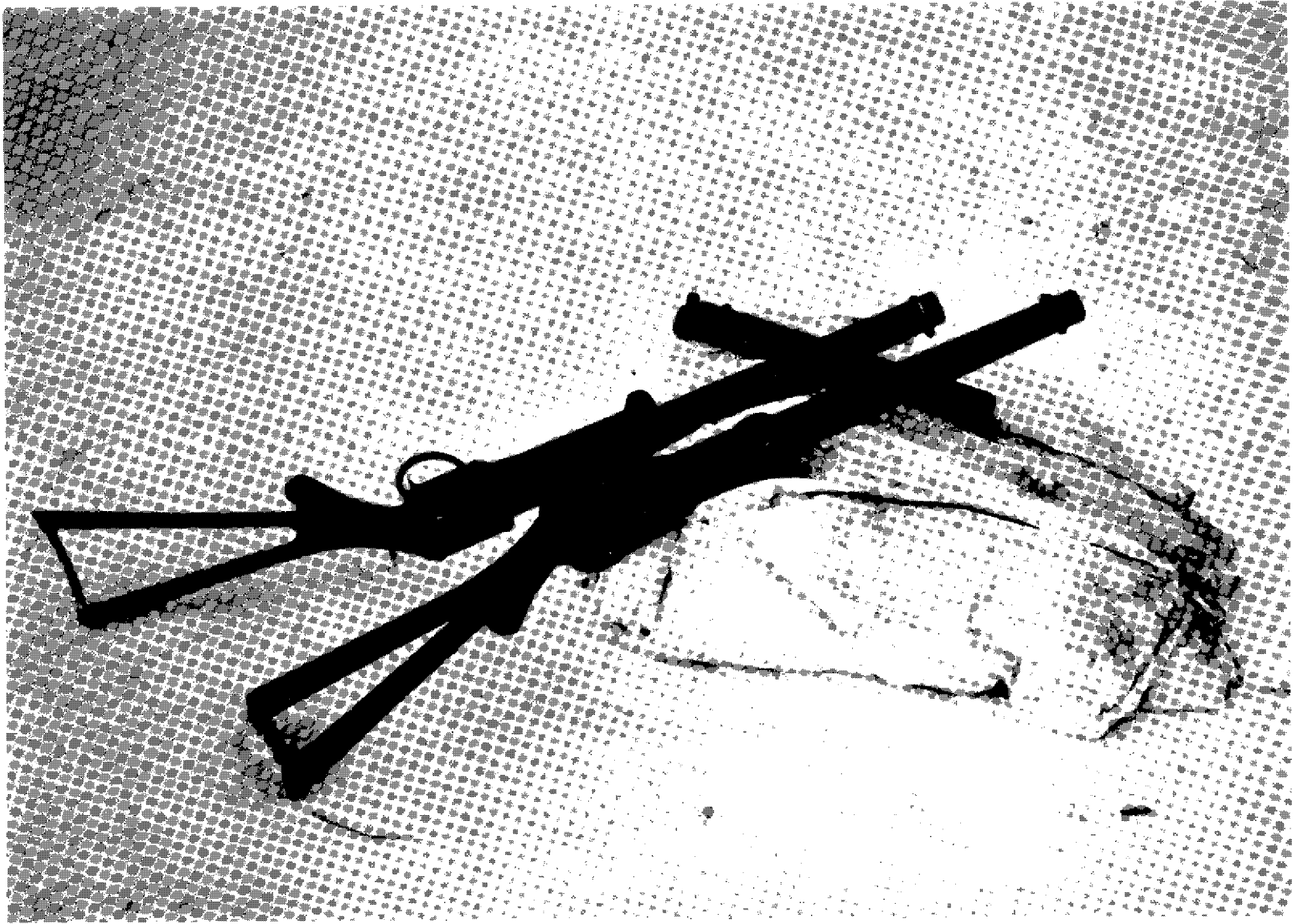
In the Bering Sea and North Pacific near the Aleutian Islands, the Eskimos hunted whales, including bowheads. Two men in a kayak approached within throwing distance of a surfacing whale. A spear with a detachable, slate-tipped point smeared with a poisonous local plant (*Aconitum*) extract, was hurled into the animal's back. The hunters then returned to camp to wait for the whale to sicken and die, hoping that it, or one poisoned by another hunter, would wash ashore nearby. Apparently the aconite decomposed before the Eskimos retrieved the whale, thus making the flesh of the whale safe for eating.⁹

In the Pacific, the Eskimos and Aleuts hunted whales from an umiak or from a two-seated kayak, using a heavy harpoon or a thin, slate-tipped lance (probably poisoned) designed to break off in the whale. Whales reputedly died from even small wounds.



University of Alaska Museum

Part of a Barrow whaling harpoon which dates from the late 19th century. The head is of bone and the blade is slate.



Dr. George Harry, National Marine Fisheries Service

Shoulder guns have been used by both Eskimo and Yankee whalers for the final kill.

Yankee Whalers

Before considering modern Eskimo whaling, it seems appropriate to review the methods of early Yankee whalers because these men, with their new equipment and killing power, made profound changes in the Eskimo's way of life.

The Yankee whaler was a daredevil breed.¹⁰ He was ingenious, persistent, and greedy; he lacked concern for the future of the whaling industry, the perpetuation of the whale stock, and the fate of the Eskimo. He was one of the world's finest hunters, because he learned open boat whaling from the Basques, those master whalers of Spain. By 1578 the Basques had a whaling fleet of twenty to thirty vessels off Newfoundland. With great agility and fearlessness,

a man frequently would board a floating Atlantic right whale to thrust a harpoon into its back, hang onto the line during the dive, and when the whale surfaced, thrust in a second harpoon.¹¹

The Yankees also learned whaling techniques from William Scoresby, Jr., an early English scholar, writer, inventor, and explorer. Both he and his father excelled as whaling captains. Scoresby, Jr. demanded excellence in harpooning. He condemned one ship officer who "...lost three large whales (one-fourth of a shipload), by unparalleled unskillfulness of harpooner." One of his whaling tricks was to harpoon a worthless, suckling whale as a decoy to lure the mother close enough to make a kill.¹²

A. Hyatt Verrill, in his book *The Real Story of the Whaler*, reviewed the equipment used in Yankee open boat whaling. The boats were of prime importance, because the actual hunt took place in them. Through long years of whaling, the boats had been developed to practical perfection. They were pulled by five great oars, and paddles were used to approach the whale silently.

Harpoons were tremendously heavy, clumsy, and cumbersome implements which could be heaved only fifteen or twenty feet with both hands. This "iron" was intended merely to secure the whale and to prevent his escape. If the "iron" held fast, the heavy rope attached to the harpoon was gradually recoiled in casks, drawing the boat alongside the monster, which was then killed with a lance thrust into its vitals. This was the most dangerous part of the hunt. Although whaling guns had been in use since early in the 19th century, the real old-time Yankee whaler found the common "iron" and the lance the most satisfactory weapons, and more whales were taken by these simple homemade appliances than by any other means.¹³

In the late 1840's the fabulous population of bowheads in the Okhotsk Sea, Siberia, was exploited. Charles M. Scammon was a persistent hunter, a careful observer, and an accurate recorder of that event. In early spring, long before his ship could penetrate pack ice, he sent his men in boats to the head of Tchanter Bay, one of his favorite hunting spots in the Okhotsk Sea. As the whalers sailed along the ice field, a whale would reveal its presence by blowing. When heard or seen, it was instantly pursued. At first the whales were easily captured, but as they became wary, they increasingly evaded their pursuers by gliding under the ice, often carrying with them the offending harpoon and line. Thus the chase frequently was prolonged or even abandoned.

Compared with other whales, the bowhead is so shy that even when spouting in large numbers around the boats, they could not be approached within darting distance. Scammon reported that "... notwithstanding the boats were rigged with extra large sails, in order to take advantage of the light airs or winds that may prevail in summer. The use of oars or paddles would be quite sure to frighten the whales, and when there is not sufficient wind 'to sail onto them' there is but little chance of 'getting fast.'" After being harpooned the whale might remain motionless on the shallow

bottom until it became exhausted. When it surfaced the waiting crew thrust a lance into it, preventing it from sounding, and it rolled over with slight struggling.¹⁴

Scammon reports that "The captured whale is towed to the beach at high tide, and a scarf is cut along the body and through the blubber, to which one end of a tackle is hooked, the other end being made fast to shore; then as the tide falls the animal is literally skinned, the carcass rolling down the bank as the process goes on." Often a stack of blubber which was capable of yielding as much as 1,000 barrels of oil had been harvested by the time the ship arrived. Meanwhile, the crews rested periodically in shelters improvised from sails and half overturned boats.

Following the ship's arrival and the "trying out" (rendering) of the cached blubber, vigorous whaling continued despite fog and drifting ice. As the spring season progressed, the boats were kept on board and the whaling was "done from the ship." As nights became longer in the fall, the whales were pursued round the clock. "Night whaling" was often successful because the whale's wake was marked by phosphorescent marine organisms.

Hartson H. Bodfish outlined his whaling technique as follows: "'Going on' means approaching to a proper distance for striking, and that frequently meant running the boat up until it touched the great creature. I was never able to strike bowheads except under sail. They are easily alarmed by slight noises or vibrations, and the disturbance of the water by oars or paddles is sufficient to throw them into panic. For the striking and killing of the whales we carried three harpoons, three lances, and two darting guns, also a shoulder gun. The boat steerer (who directs the speed and direction of the boat to meet the surfacing whale) stands by in the bow ready with his first darting gun. Rarely does the first bomb kill the whale, so the second darting gun is planted before the whale gets away, thus the possibility of two lines on the animal and one harpoon may pull out because of the mangling of the flesh around the harpoon by the bomb. If the whale was still lively, it was finished off with the shoulder gun or lance. The lance was dependable but the bombs often failed because of malfunctioning or carelessness of operator." One of Bodfish's "incompetent" boat steerers got a bomb wound in his hand and later went insane while wintering over.

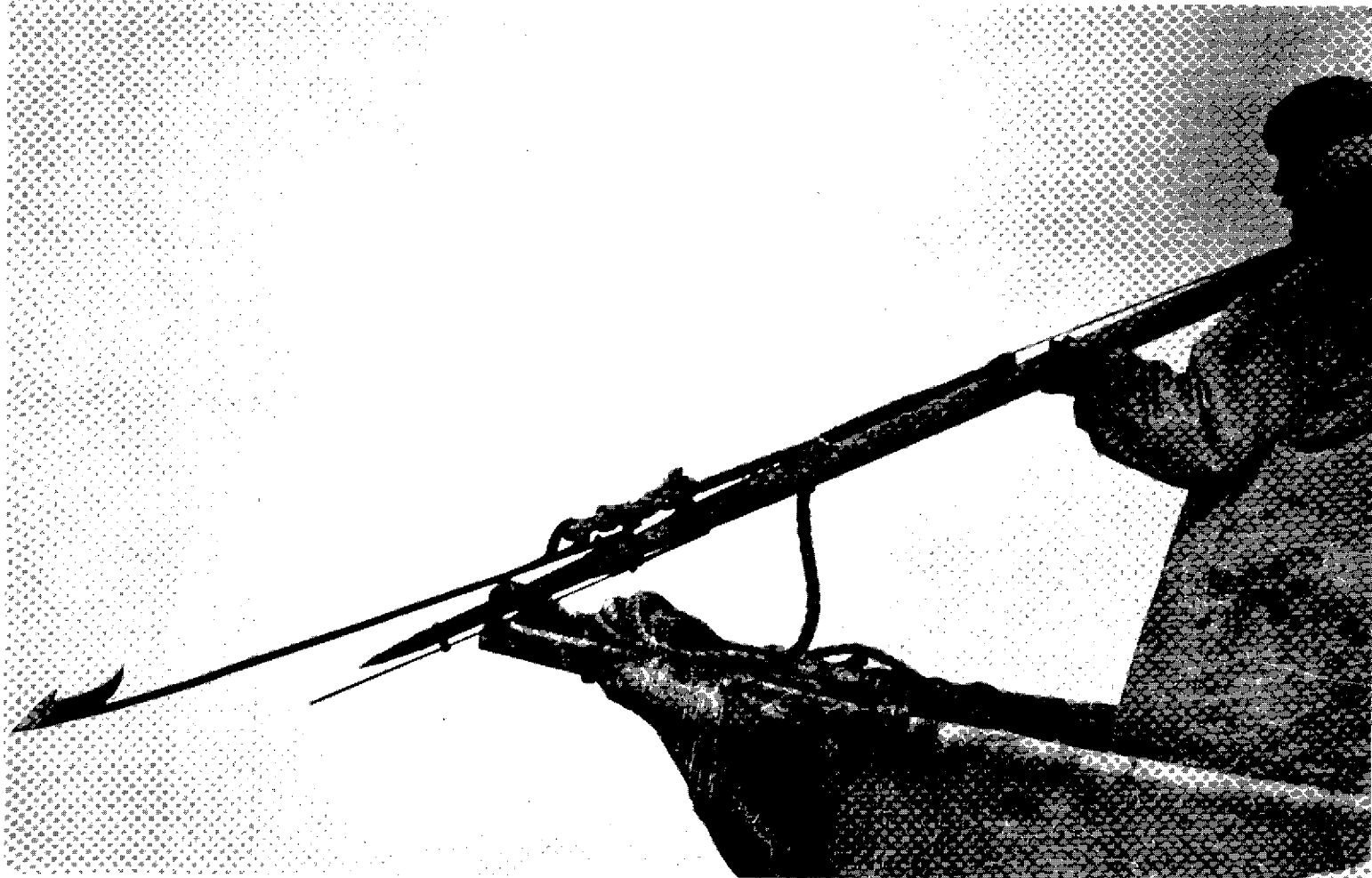
Regarding the docile whale, Bodfish writes: "The bowhead is not much of a fighter. The tail is dangerous, but because there are no teeth or jaws for biting, no damage is likely to be encountered from the head unless by accident. Bowheads are ordinarily easy to kill with the bombs." But he gave one example in which twenty-three bombs were exploded in the vitals of a whale and, during the eight or nine hours required to kill the animal, it wrecked one whaleboat and rammed the ship.

The Yankee whalers probably took two out of three whales they struck. This was Bodfish's average on starting a new style of whaling in which he maintained a twenty-four-hour watch at the open places in the pack where whales surface. On one occasion he harpooned sixteen whales, losing only four.¹⁵

Some of the whalers, such as Frank T. Bullen, author of *The Cruise of the CACHALOT*, divided their time between taking the sperm whale in the North Pacific and the bowhead in the Okhotsk Sea. On leaving the sperm grounds, the bomb equipment of the CACHALOT was cleaned and stowed. Bowheads were too easily killed with harpoon and lance to "waste" a bomb on them. Soon after arriving at the Kurile Island grounds, a bowhead was raised and two boats were sent out. "There was little or no wind . . . so we did not attempt to set sail, but pulled (with oars) straight for him 'head and head' . . . We were upon him with our harpoons buried in his back," Bullen said. The bowhead gave a lumbering but harmless splash before sounding in shallow water. On surfacing he set off at his best gait, but was easily overtaken. The boat crew took no precautions on hauling alongside the whale" . . . while the officers searched his vitals with the lances as if they were probing a haystack. Really the whole affair was so tame that it was impossible to get up any fighting enthusiasm over it; the poor, unwieldy creature died meekly and quietly as an overgrown seal. In less than an hour from the time of leaving the ship we were ready to bring our prize alongside."¹⁶

Charles D. Brower played an unusual role as a whaler and "King of the Arctic." Unlike the previously mentioned New Englanders, he was land-based at Point Barrow. He learned the Eskimo language, took an Eskimo wife, and profoundly influenced the economy, health, education, and whaling of the area. He came to Point Barrow before white men decimated the whales, walrus, caribou, and musk ox. The Eskimo was a part of the then "balanced Arctic." Before his *Fifty Years Below Zero* were up, he saw the white whalers pull out. He recognized and was part of the conflict between the old and new cultures. His Eskimo contemporaries were reluctant to abandon the old harpoon-lance technique of killing whales, for fear of offending the whales. They were skeptical of the efficiency of the bomb because they observed that Herendeen killed only one bowhead with a whale gun in 1885 (and lost that whale), whereas the natives got six whales with their old-style harpoons and lances.

On observing the occasional but increasing success of the white whalers, the Eskimos compromised: If the first harpoon used on a whale was made of stone or ivory, then anything (iron harpoon or bomb), might follow without breaking the charm. Brower and the other land-based white whalers also compromised by chasing whales in umiaks, which were superior to wooden whaleboats, particularly in portage, and by waiting at leads and "ponds" for the whales to come to the hunter. Brower found that hamstringing the flukes prevented the whale from diving, and that lancing its jugular quickly finished off a harpooned whale. Many of the Eskimos whaled as crewmen for the white hunters, and by 1883 they had adopted Yankee whaling gear and allowed themselves the comfort of hot tea and bread out on the ice. Tents were used years later. By 1894, few Eskimos whaled native fashion, and most had forgotten the old "harpoon-float-lance" method.



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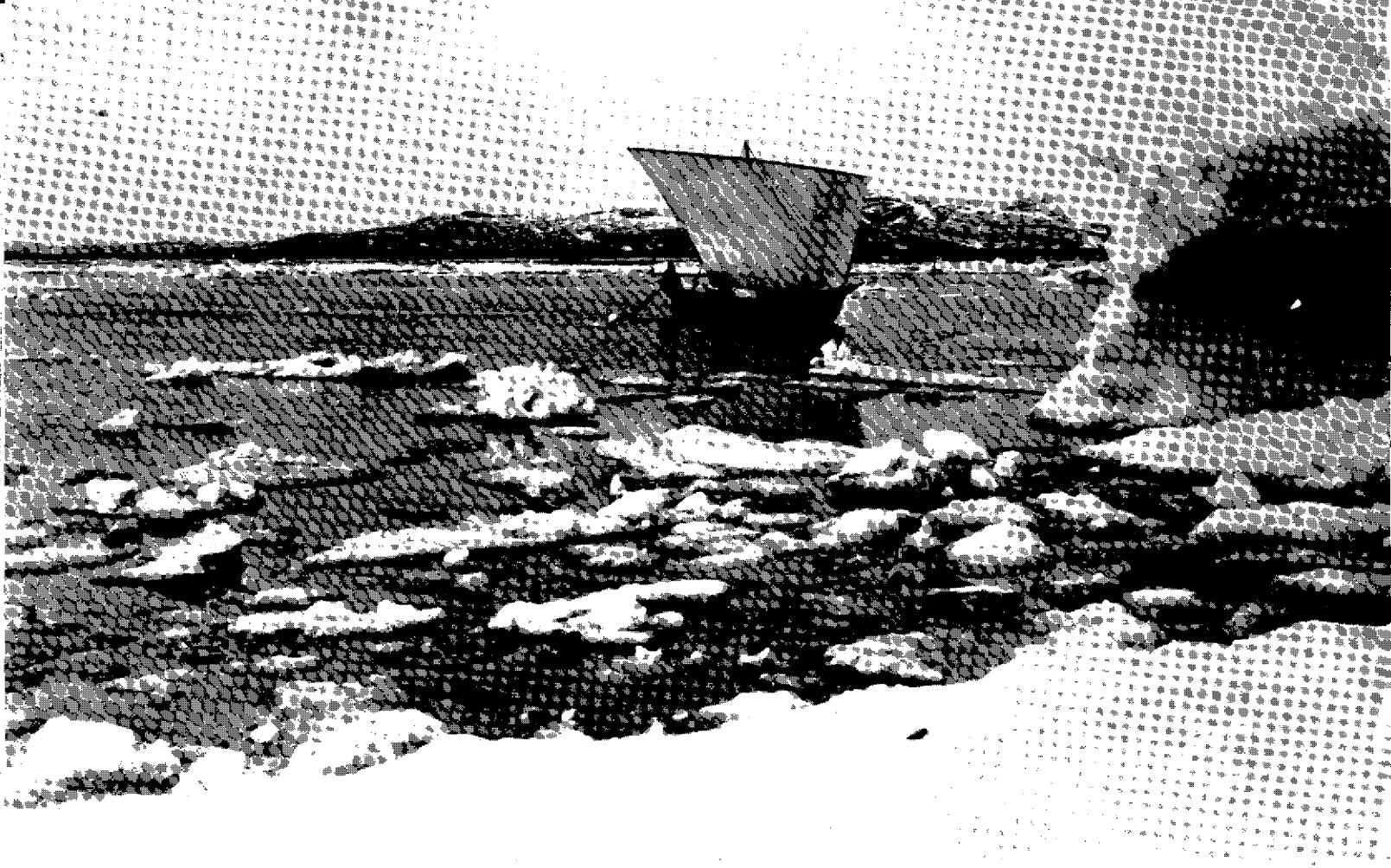
The darting gun, one of the first modifications on the traditional hand-thrust harpoon and line, included an explosive charge along with the toggle-headed harpoon.

Changing Times

When the bowhead stock was depleted and the price of baleen and whale oil dropped drastically at the beginning of the 20th century, the white whalers left the Arctic. Once again the Eskimos were dependent upon their own resources. Bombs and guns suddenly became scarce. The whales were nearly gone, and the land game was scarce. The population of Native villages dropped due to famine and disease. Brower, "King of the Arctic," saw his little kingdom in dire straits.¹⁷

To add to the problem, the Eskimos also began to forget the white man's way of whaling.

They had long since lost their native finesse with primitive tools. That Eskimos can and do forget techniques is illustrated by the comment that the Natives of Wales had forgotten how to whale within fifteen years after the commercial whalers quit the Arctic.¹⁸ Richard K. Nelson wrote that whaling at Wainwright was a lost art.¹⁹ Dr. Max C. Brewer, former director of the Naval Arctic Research Laboratory at Point Barrow, wrote in a recent personal communication that the Eskimos of Tuktoyaktuk and Inuvik (Mackenzie River delta area, Canada) had invited a Barrow Eskimo whaler to instruct them in the killing of whales, an "art" which they had forgotten.



Alaska State Historical Library, Lomen Collection

Eskimo umiak with sail amidst ice floes on the Bering Sea.

Comparison of Whaling Techniques

In comparing the current Eskimo whaling technique with those of the early Eskimo and the Yankee whaler, let us consider it step by step:

1. **Approaching the whale.** Bowheads are readily spooked by noises and vibrations such as those resulting from paddling and rowing; Scammon, Bodfish, and Bullen repeatedly reported sailing their whaleboats alongside a surfacing whale without disclosing the presence of the boats. Verrill illustrated a Yankee whaleboat with a simple but effective spritsail.²⁰ Old-time legends repeated by Barrow Eskimos recall the use of umiaks with sails of caribou hide, which later were modernized with canvas sails, center board and rudder. C. Rusty Heurlin, in his recent painting "Once More Whaling," shows a half-dozen umiaks in a lead under sail. Dr. Thomas Poulter, on a walrus hunt off Saint Lawrence Island, Alaska, reported in a personal communica-

tion in 1968 that twenty Eskimo boats were out under sail: "They always sail for hunting so as to be quiet." Today there are exceptions to the quiet hunting technique. Poulter later noted the use of an outboard motor to increase speed and range. A stranded Eskimo might improvise a sail from a piece of tarpaulin on poles to bring his boat back to shore, but in my ten years of observing hunters in action in several coastal villages in Alaska, I have seen little indication of sailing equipment or sailing skills. The umiak remains the standard boat of the Eskimo for spring whaling, since it is suitable for work within the moving ice and leads and can be dragged over the ice more easily than heavier, more modern equipment. Nevertheless, the contemporary Eskimo does use other craft, often manufactured of aluminum or fiberglass, for fishing along the coast and in estuaries, bays, and rivers. None of these craft are of the sailing type, and are seldom used for whaling.

2. **Striking the whale.** The whaler-authors mentioned above, along with Scoresby and others, have emphasized the need to make fast to the whale with a line and at least a buoy. This was done by early Eskimo and Yankee whalers by thrusting a heavy-shafted harpoon point-blank into the whale, or by hurling the harpoon as far as twenty or thirty feet. The introduction of the darting gun did not eliminate the necessity of a close approach to the whale. As with the hand harpoon, the closer the approach the better the thrust. A few of the old Eskimo boat steerers will pull alongside the whale so that the umiak touches the whale. Because the bowhead is slow moving, a second darting gun (also with harpoon, line, and buoy) is sometimes fixed before the whale can submerge. Because the Yankee whalers restrained the harpooned whale by fixing the line to the whaleboat, it was essential that the harpoon be firmly fixed. As pointed out by Bodfish, a hand-planted harpoon usually holds better because the flesh near the toggle is not fragmented by a bomb. He further warned that unless a line is first made fast to the whale, an almost sure loss of a bomb and a valuable whale would result when it was shot with a shoulder gun. Only a neck shot will kill a whale instantly and prevent it from escaping under the ice.

3. **Killing the whale.** Old Eskimo and early Yankee whalers finished off an exhausted whale with lances thrust into the chest and throat. The wild, Yankee cry of "the chimney is on fire" was given when the chest was riddled and blood streamed out of the whale with each spout. The battle then was nearly over. Lances were cheap, effective, homemade tools, but few are found in the equipment of contemporary Barrow whalers. With the development of explosives, most of the Yankee whalers finished off a whale with a shoulder gun blast. Even this required special skill to strike a vital spot. In current Eskimo whaling, the darting gun-line-buoy stage is sometimes omitted, and the shoulder gun frequently is used from start to finish, often requiring many bombs

and resulting in many lost whales. Some whalers lead with the shoulder gun and hopefully add a darting gun, bomb, line and float before the whale submerges. At Point Hope the whalers use darting guns more often than shoulder guns, due to the serious accidents that have occurred with shoulder guns. Careless loading of a shoulder gun caused the bomb to explode in the barrel. Shrapnel cut the whaler's intestines, and he died the next day. On the day following this fatal accident, another bomb exploded prematurely, hitting an Eskimo in the leg.²¹

In summary, the Yankee code for taking a bowhead called for: (1) a silent approach—by sailing, if in open water; (2) making a harpoon and line fast—that harpoon might be only a hand-thrust shaft with barbed or toggle head, or it might bear an explosive charge as does the darting gun; and (3) killing the whale with thrusts of the lance or by a point-blank shot in the neck with a shoulder gun.

As previously stated, good Yankee whalers using harpoon-line-explosives secured two-thirds to three-fourths of the whales struck.

The average loss of bowheads along the Alaskan Arctic coast in recent years is difficult to estimate, because no statistics are available. My experience indicates that about one in four or five whales pursued is harvested successfully.

Without a substantial shorefast ice platform or a properly sloping and protected coast for beaching the dead whale—or without the proper tackle, manpower, or heavy-duty tractors for hauling the whale out of the water—there is a further loss of whale products.

In light of the observations of the writers mentioned above, it seems reasonable to conclude that methods used by many modern Eskimos could be improved by use of the older techniques, which would increase the chances of harvesting a whale. If this condition is the result of failure to pass on both the know-how of the old Eskimo hunt culture and the finesse of the Yankee whaler, it is regrettable, and might well be corrected.

International Whaling Codes

Additional insight into the methods of current Arctic Eskimo whalers may possibly be derived from the circumstances surrounding the development of International Whaling codes and the actions or inactions of the United States relative to these conventions.

The International Whaling Convention and the International Whaling Commission have attempted to regulate worldwide whaling and maintain the stocks of great whales at sustained yield levels. When the institutions started (1931 and 1946, respectively), North Atlantic whale populations were already overharvested. Principal concern centered on the Antarctic, and to a lesser degree on the North Pacific.

The bowhead whale, of principal concern in this paper—and to the Arctic Eskimo—was virtually depleted in the North Atlantic. Along the Arctic-Alaskan coast, however, where commercial whaling had ended early in the century, Bailey and Hendee²² present evidence that stocks had increased substantially by the 1920's and 1930's. This was, however, recognized by only a few scientific observers, local traders and the Eskimos themselves. The 1931 Convention undertook the protection of bowhead whale stocks essentially on the basis of North Atlantic experience and concerns. Added to this aspect was the unsettled legal status of Alaskan "aboriginal rights" and the lack of knowledge within government of the cultural, economic, and subsistence patterns of the Eskimo in Alaska and in the Arctic more generally.

In any event, the 1931 Convention contained two references applicable to Eskimo whaling in the Arctic. These are:

"Article 4. The taking or killing of the right whales, which shall be deemed to include North-Cape whales, Greenland [bowhead] whales, Southern right whales, Pacific right whales and southern pigmy right whales, is prohibited.

"Article 3. The present Convention does not apply to aborigines dwelling on the coasts of the territories of the High Contracting Parties provided that: (1) They only use canoes, pirogues, or

other exclusively Native craft propelled by oars or sails; (2) They do not carry firearms; (3) They are not in the employment of persons other than aborigines; (4) They are not under contract to deliver the products of their whaling to any third person."²³

Article 3 of the 1931 Convention is important in that it provided an exception for aboriginal harvest and use, but is particularly interesting in that it evidences little knowledge of Eskimo hunting techniques at the time.

As early as the 1880's, for example, the Arctic Eskimo was familiar with the shoulder gun and other firearms. By the early 1900's these were in common use.

Nevertheless, it seems apparent that the United States, as one of the contracting parties wishing to protect "aboriginal rights," was either uninformed on Eskimo weaponry, chose to ignore such knowledge, or perhaps went along with romantic ideas of aboriginal practice with the thought that the problem was of little consequence.

In 1946, the International Whaling Commission wrote:

"Schedule 2." It is forbidden to take or kill gray whales or right whales, except when the meat and products of such whales are to be used exclusively for local consumption by the aborigines."²⁴

The above regulations were amended in 1964 as follows:

1964. Paragraph 2. "It is forbidden to take or kill gray whales or right whales, except by aborigines or a Contracting Government on behalf of aborigines, and only when the meat and products of such whales are to be used exclusively for local consumption by the aborigines."²⁵

Whatever the knowledge or objectives of the United States' participants might have been can only be guessed at, but the record is clear that none of the Convention stipulations or Commission regulations (cited above) were ever enforced in Arctic Alaska.

The history of implementation of regulations in the Arctic does not include many instances where the Government has made sincere efforts

to explain the regulations or the need for them to the Eskimos. If this was true in the case of the Convention and Commission regulations, they could not have had much impact on whaling methods, no matter how well formulated.

In theory or effect, however, the 1931 regulation allowed the Eskimo "to live off the sea" for fifteen years by killing whales in the traditional style of his early ancestors. The ensuing regulations of 1946 were beneficial to the Eskimo in that they protected the gray whale from commercial whalers, thus making a second stock of large whales available to the Eskimo in his rare taking of this species. The big 1946 bonus was the act which placed no restrictions whatsoever on the craft or weaponry used by the Eskimo. Instead of just primitive tools he could use cannons, catcher boats, and factory ships, just as the non-Native commercial whalers do on unprotected whales. The 1964 amendment included another aspect for the Eskimo which has never been used in Alaska. His government might take the whales for him, presumably in a more efficient manner, or while the Eskimo was otherwise employed.

The United States pledged at the 1931 Geneva conference (Article 1): "The High Contracting Parties agree to take, within the limits of their respective jurisdictions, appropriate measures to ensure the application of the provisions of the present Convention and the punishment of infractions of the said provisions." Aborigines were not exempted from this regulation aimed at overly aggressive commercial whalers. Lacking in respect by and authority over the whaling nations, neither the United States nor the Convention proposed an "observer scheme" for Native whaling or took measures to correct the minor infractions. It was easier "to do nothing" than to make a futile attempt to police the Arctic. It followed that, after 1946, the Eskimos could use their hand-held explosive whaling equipment with clear conscience and could legally search for and experiment with bigger and better whale guns.

The Marine Mammal Protection Act of 1972 again evidenced little concern for the facts of actual Eskimo whaling practice. The Congress

again, as in 1931, in its rightful concern over the international extermination of the great whales, overlooked or chose to ignore the real status of whale stocks in the North Pacific and Arctic Ocean. Thus the bowhead whale and gray whale, "endangered species" by governmental decree, are taken by the Eskimo from stocks that are relatively high as compared to their status at the turn of the century. The dichotomy of these situations and events since 1931 is obvious, but perhaps the need for Eskimo and government alike to apply the lessons learned is now becoming more real.

Reform in the methods of taking, retrieving, butchering, and utilizing whales by Eskimos will take place. Whether or not it will be practical and in keeping with the Eskimo way of life will depend largely on both the Eskimo people themselves and on a cooperative government working with them.

It is my thesis that better methods are both possible and practical and that much may be learned from the past—the history of both the Eskimo aborigine and the Yankee whaler.

Whaling regulations must contain more positive and factual propositions. Supporting laws should pertain to the taking and butchering of whales and to the disposal of whale products. A "High Contracting Government" could (1) assist in developing methods for more efficient killing of the whales, and (2) provide an outlet for selling the blubber, meat and by-products.

With a better method of taking whales—possibly returning to the old, tried-and-true, harpoon-float-lance method or devising a new explosive, chemical, and/or electrical weapon with a bag limit per village per season, whales could be taken in the Arctic without handicapping the Eskimo way of life and without hurting the whale stocks. By removing the regulation of "not selling whale products to a contracting party," the contracting government or some assigned institution could aid at least in processing the blubber into whale oil and other valuable products to finance the taking of whales in the future, promoting research on whales, or performing some community Eskimo project such as education, conservation, or welfare assistance.

Summary and Conclusions

The almost worldwide aboriginal method of taking great whales with harpoon, line, buoy, and lance was used by the Eskimos in the western Arctic. This simple but effective technique supplied sufficient bowhead whales in season to sustain a whaling culture in the coastal villages for more than 1,000 years. At the beginning of the Yankee commercial whaling in the Arctic in the mid-1800's, the Eskimo technique was altered by the addition of explosive whale bombs for quickly and safely disposing of the harpooned, exhausted whale.

By the beginning of the 20th century, when the whale stock had been depleted and the Yankee whalers had left the Arctic, the technique had degenerated until the bomb had become the most important, if not the only weapon used. The old Eskimo technique had been forgotten and the new Yankee technique had been corrupted. By omitting sails on umiaks and sometimes the harpoons with line and buoy, and by shunning the lance, the whale chase often consisted of a series of bombings from start to finish. This technique results in more whales wounded and relatively fewer carcasses recovered. Some "stinkers" die under the ice and are chiseled out days later; only small portions of these whales are usable. When fresh whales are butchered today, it is not uncommon for some of the blubber to be discarded. The blubber, which comprises a large percentage of the whole, was originally considered the whale's most valuable part. Such waste is in part attributable to certain laws which inhibit the marketing and commercial use of this valuable product.

The opportunity is ripe to relearn the old Eskimo hunting skills and to reteach the Yankee technique of killing whales from open boats. The opportunity is ripe to encourage conservation by killing what is actually needed, retrieving what is killed, and preserving the bowhead stock for future generations. This might become the code of the People of the Whale.

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