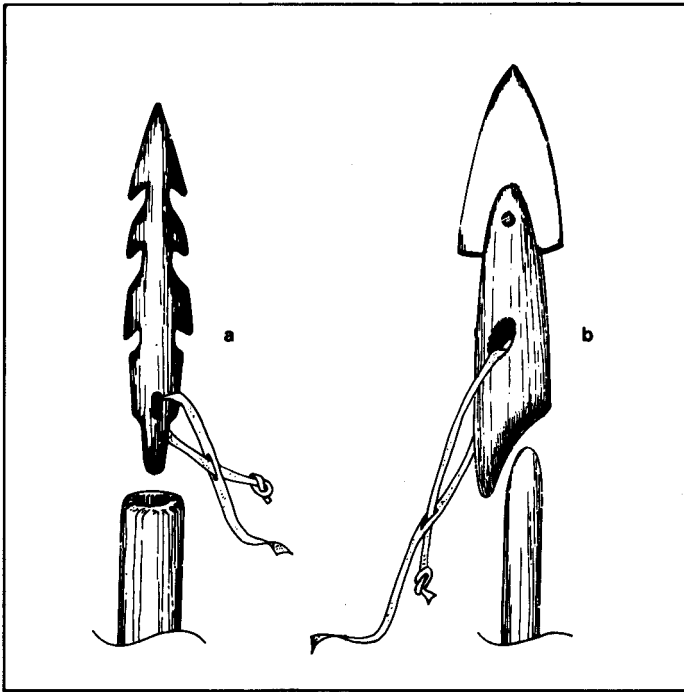


## Arctic Harpoons

While modern technology has replaced many of the traditional tools that enabled Inuit to survive in the Arctic, one of their fundamental hunting weapons, the harpoon, continues in use to the present day. Essentially, the harpoon is a spear designed to secure a detachable point, or head, to an animal; a line attached to the head allows the hunter to retrieve the quarry once it has been struck. Harpoons have a wide distribution throughout the world, but it is among the Inuit that the most complex pre-industrial forms were developed. The primary use of the Inuit harpoon was for hunting sea mammals, both at breathing holes in the sea ice and in open water, although in some arctic areas the harpoon was used for fish as well.



Harpoon head types: a) non-toggling head; b) toggle head.

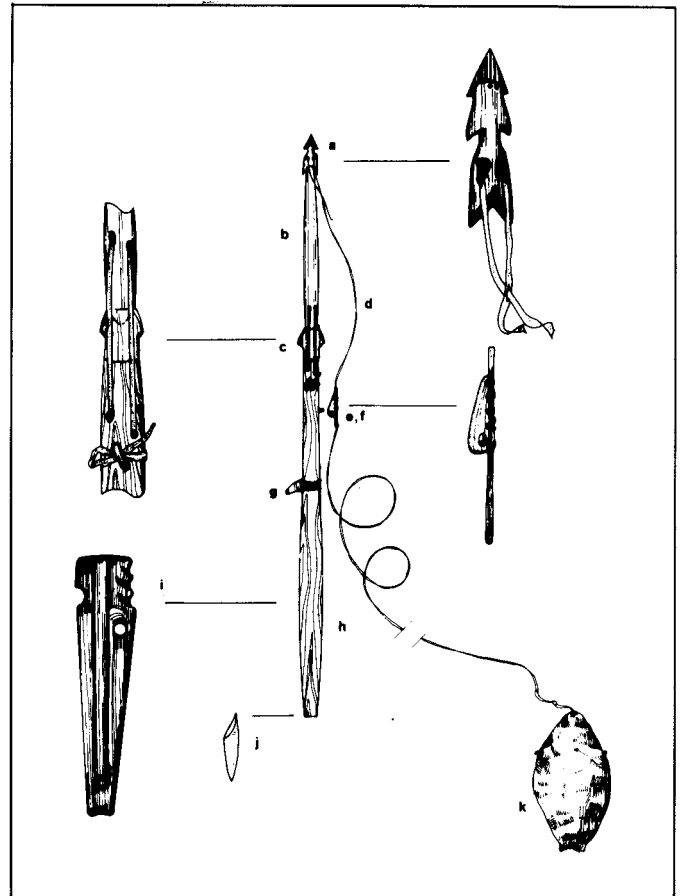
Traditional Inuit harpoons exhibited a wide range of form. To the basic elements of the harpoon, namely the shaft, head and line, were added other devices, and each component could have been refined in a number of ways to make the harpoon suitable for hunting under specific conditions.

Harpoon heads generally belonged to one of two major groups. One kind had a projecting tang at its base, which was inserted into a socket piece on the end of the shaft. Barbs projecting from the body of this type of head ensured that it stayed imbedded in the flesh of the animal once it was harpooned. The other variety had a socket at the base of the head to receive the tip of a foreshaft. After being thrust into an animal, one or more spurs at the base of the head dug into its flesh; tension on the harpoon line, which passed through a hole above the socket, then caused the head to rotate 90°, preventing it from slipping out. This variety, called the toggle harpoon head, was the more common form in Inuit cultures. Some toggle harpoon heads also had barbs, perhaps

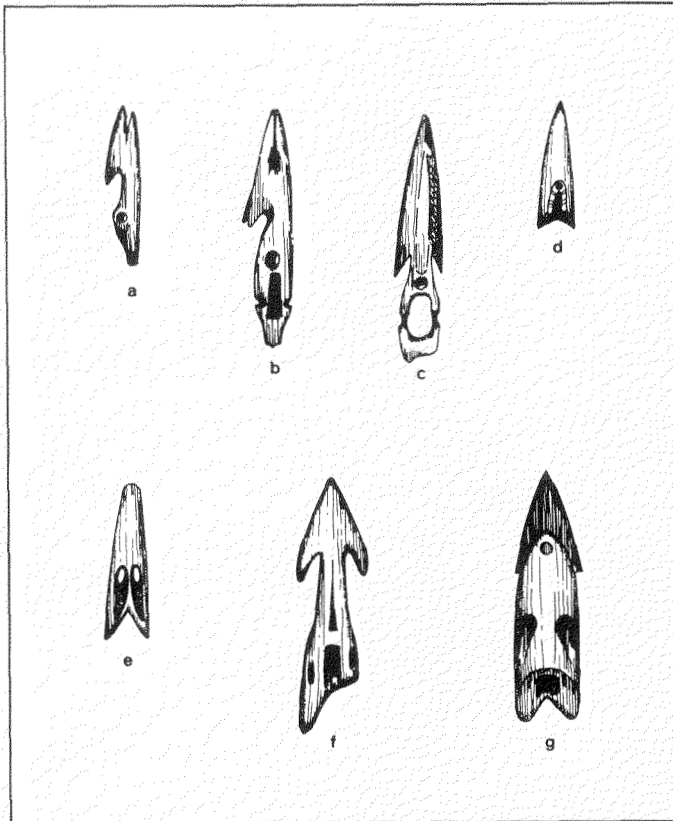
as added insurance that the head would not pull out if it had not penetrated deeply enough for the spurs at the base to dig in. Harpoon heads of either kind were self-pointed or might have been tipped with separate bone, stone or metal blades.

The thick hide of the bearded seal was favoured by many groups for making harpoon lines. The tangs of non-toggling heads were held in the harpoon socket by friction. Toggle harpoon heads, on the other hand, were held in place at the end of the foreshaft by tension on the harpoon line, which was stretched back to the shaft and secured by an eyelet that slipped over a peg set into the shaft. Hunters using the harpoon at breathing holes normally held onto the end of the line, whereas when hunting from boats a float was usually attached to the line to tire the animal out. Floats for harpoons ranged in size from small ones made out of bladders to large floats made from the entire skin of a seal.

Foreshafts for toggle harpoon heads were "fixed" or "loose." Fixed foreshafts were fastened securely to the shaft. Harpoons with fixed foreshafts have traditionally been associated with hunting at breathing holes, where the harpoon was thrust with considerable force and then pulled back, releasing the



Components of the harpoon: a) head; b) loose foreshaft; c) socket piece; d) line; e, f) tension eyelet and peg; g) finger rest; h) shaft; i) throwing board; j) ice pick; k) float.



Prehistoric harpoon heads from arctic Canada: a,b) Independence I; c) Pre-Dorset; d) early Dorset; e) later Dorset; f,g) Thule (redrawn from various sources).

head. Loose foreshafts were designed to move laterally once an animal had been struck, shortening the distance between the head and the tension eyelet and thereby allowing the head to detach. There were various ways that this could be achieved, but most commonly the loose foreshaft had a rounded butt that fit into a shallow socket at the end of the shaft. A thong passing through one or more holes near the base of the foreshaft fastened it either to the socket piece or to the shaft in such a manner that the foreshaft could pivot. Although there were no firm rules in this regard, loose foreshaft harpoons were often used in open water hunting. In these situations the harpoon was usually thrown at a swimming sea mammal, and the movement of the foreshaft ensured that the head would separate.

The harpoon shaft was made of wood, if available, as it would then float. In areas where wood could not be obtained, the shafts were fashioned from narwhal tusk or from several pieces of bone or antler spliced together. The size and weight of the shaft depended upon the manner in which it was used. Harpoons used for hunting at breathing holes were generally short and light, whereas longer and heavier shafts were used for walrus and whales. Ice-hunting harpoons usually had an antler or ivory pick or chisel lashed to the butt end to enlarge the breathing holes so that seals could be pulled

through, although some throwing harpoons had ice chisels as well. Either kind may have had a finger rest attached to the shaft to provide extra leverage. In some areas, harpoons used for open water hunting were cast using throwing boards, which could propel them faster than throwing by hand alone.

Archaeological evidence shows that harpoon technology has been known in the Arctic for thousands of years. There has been considerable change in harpoon apparatus over time as they were refined to make them more efficient or altered to make them better suited for certain purposes. Purely stylistic changes appear to have occurred as well. These changes are particularly evident in harpoon heads, where the presence and position of barbs and blades, the position of the line hole, the nature of the socket and provision for securing it to a foreshaft, the shape and location of spurs, and a variety of other attributes often reveal the age and cultural affiliation of a particular specimen.

It is not always evident, however, what kinds of hunting strategies were used in prehistoric times. The Independence I (400 - 3700 B.P. [Before Present]) and Pre-Dorset (3700 - 2800 B.P.) peoples in the Canadian Arctic probably used harpoons with fixed foreshafts. In the Dorset period (2800 - 1000 B.P.) foreshafts appear to have been attached to the shaft in such a way that they moved backwards on the shaft on impact, loosening the harpoon head. The Thule culture (1000 B.P. - historic period) added the loose foreshaft to the repertoire. This may indicate that the earliest inhabitants of the area hunted only at breathing holes and that open water hunting was a later innovation, or it may simply reflect a development from an all-purpose form to specialized harpoons for particular hunting conditions.

Further changes in harpoon technology have occurred in the historic period. Those used today usually have fixed foreshafts, and the same basic type is now used for hunting at breathing holes and to retrieve sea mammals in open water after they have been shot using rifles. Modern harpoons typically have iron or steel rods as foreshafts and heads fashioned from brass, steel or aluminum. Hockey sticks are sometimes recycled as shafts for light harpoons, and two-by-fours are often cut down for heavier weapons. This adaptation of traditional technology to a changed environment is typical of Inuit culture and helps to explain how that culture has been able to survive into the modern period.

#### OTHER READINGS

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