

# Sky above, sea below Inuit Wayfinding

By Michael Engelhard

To survive, any organism must explore its environment, and for thousands of years, circumpolar peoples have excelled at both.

During William Edward Parry's 1821-23 push for the Northwest Passage, Lieutenant William H. Hooper queried Toolemak, an Iglulingmiut shaman, about ice conditions along their prospective route. After some chanting, Toolemak called upon his spirit helper or *tuurngaq*, who told the assembled that sea ice would force the explorers' ships to turn around and sail back to Kabloona-noona, "White Man's Land." As predicted, ice jams in Fury and Hecla Strait south of Baffin Island thwarted the expedition, which promptly left Canada's Arctic.

Hooper had followed Toolemak's "conjunctions" with skepticism and only because the geographical knowledge of Inuit shamans reputedly was extensive. The incident, Toolemak's performance notwithstanding, indeed betrays a fine-tuned literacy of place rather than any ability to contact supernatural powers.

"It is known," editorialized the *New York Sun* on January 24, 1897, "that Indian tribes, and the Eskimos also, frequently have the geographic instinct well developed, and their rude sketch maps have sometimes been of considerable assistance to explorers." Paternalistic assessments such as this disguise the fact that Inuit geo-spatial concepts and navigational skills equal those of Australian Aboriginals and of intrepid voyagers in the South Pacific, which have been commended for their accuracy. With Arctic societies in transition, with language loss, handheld GPS, and long-distance travel overland and by sea diminished, this knowledge is quickly fading. Artificial features such as radar towers and radio masts are replacing snowdrifts and stars as beacons for young Inuit hunters. Where formerly a culture incorporated nature's elements in its mental maps, another now designs instruments that with each improvement seek to shake off bonds of nature. There no longer are men of a valley who *are* that valley, men whose soul, like the poet's, "is composed of the external world."

Far from being a mere "instinct," orienting skills and the related canon of environmental knowledge painstakingly had to be learned and then practiced. They were passed on orally from one generation to the next, by listening to and observing expert elders. The role of pupil often fell to explorers, whose travelling savvy and charts could be spotty or nonexistent.





**Ammassalik Island in southeastern Greenland, seen from Kulusuk Island.** Photo by Algalv (talk) - Own work, CC BY-SA 3.0, <https://commons.wikimedia.org/w/index.php?curid=10340002>

Traversing largely featureless pack ice and winter landscapes, often in whiteout conditions, resembles course-setting at sea, and similar information can be used. The Inuit kit of wayfinding aids included landmarks twinned with stories that “explained” such natural features, but also the “reading” of currents and surf sounds on shore, of constellations, migrating birds, whales, and caribous, atmospheric phenomena, and the shape, drift, and consistency of snow “waves” or *sastrugi*. Arctic snowdrifts hold clues about prevailing winds and thereby, cardinal directions. A whaleback-shaped drift is *agviuraq* (usually about 30 feet in length) and one with a sharp downwind side and a less steep upwind side, *aniuvaauraq*. Resembling a map’s contour lines, *qayuqlait* are small ripples. Ice-free stretches of sea also announce themselves indirectly, as “water sky,” darkly reflected off the underbelly of clouds. In “looming,” objects below the horizon — boats, ice-shelves, islands — float high above their real position, mirages of bent light resulting from temperature inversions. Prevailing warm southeasterly winds blowing across a lake melt ice along its northwestern banks, and the white-lidded eye on still days becomes a compass.

The expanding twilight of spring, conversely, makes stars indistinct. And even in winter, Polaris shines at too high a position to serve as a true marker of North — the Greek root for the region’s name *artikos*, after all, refers to lands that spread below the Great Bear.

Even temporarily lost voyagers had, and have, a shot at returning home by tuning into a setting’s flow, by being attentive, by assessing intricacies of a landscape or seascape and not journeying against its grain.

Ethnographers of the past who worked with veteran Inuit travellers falsely claimed that, although they had never seen a map, they could read one, recognizing *nuna*, “the land,” in its graphic abstraction. Many Inuit, in fact, easily switched to a bird’s eye perspective like a shaman transformed into a raven. Ephemeral maps traced into snow,

“Caribou” (Tukturjuit, the Big Dipper) and “Two in Front” (Sivullik, “the first ones,” Boötes—a little orphan boy chased by an angry grandfather). Arcturus is the Old Man. Inuit constellations illustrated by Johan Meuris. (Free Art License 1.3) [http://johanmeuris.eu/portfolio\\_page/stellarium-constellation-art/](http://johanmeuris.eu/portfolio_page/stellarium-constellation-art/)



ice, and the air were a tradition. In 1825, upon Captain F. W. Beechey’s request, some Inupiat of Alaska’s Kotzebue Sound built a relief map of Cape Krusenstern’s littoral using sand, sticks, and pebbles. Place names portrayed landforms envisioned from above. When prompted, informants would sketch the terrain with great detail and topographic context. Contrary to the explorers, for the “Human Beings” no wilderness, no *terra incognita* existed. “Here be dragons” became “here be delicious walrus,” and a few maps based on their knowledge were thus annotated. To the indigenous tenants, unpeopled lands were inconceivable: routes everywhere scored the space they inhabited, proof of deep occupancy and use.

Rasmussen elicited many graphic representations of their environs on his dogsled trip through the Northwest Passage during the 5th Thule Expedition of 1921-24. Judging from these, the Arctic, larder for people and refuge of spirits, had been fully internalized.

The distortions also are telling. Some Inuit depicted familiar settings, *their* bays, lakes, lagoons, and islets in a sophisticated scrimshaw of travel and toil. Lesser known coasts and plains on the periphery appeared vague, diminished in detail and size compared to their home ground. Women intimately knew areas near the camps, orbits for snaring hares, picking berries, digging up roots. Men focused on distant trading locations, on passes, portages, furbearers’ itineraries, and the grooves caribou herds gouged in the soil. Exaggeration in scale also signified vital shelter or good hunting sites.

Carved from driftwood, Inuit maps of a Greenlandic archipelago could be fingered under a parka or in a *qajaq*’s hatch, upside-down, in a blizzard or in polar darkness. If washed overboard, they would float. Plotting a navigable fringe, the map’s knobs and notches — the coves, fjords, and capes of that sea-riven shore — ascend one side of the artifact and descend the other, as if North did not matter. A man named Kuniit whittled these memory-sticks before his small, mobile band encountered the first



Ilulissat or Jakobshavn, in Disko Bay, West Greenland.  
Photo by Kristine Riskær - Ilulissat 3 2008 149, CC BY 2.0,  
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One of three driftwood maps from Ammassalik, with corresponding islands on the Greenlandic coast. Carved map photo courtesy of Greenland National Museum and Archives / Illustration courtesy Mark Garrison, *Hakai Magazine*

*Sastrugi* near Tromsø, in Arctic Norway. Photo by Bo Eide @ Flickr.

Europeans in the 1880s. In their simplicity, the sculpted burls condense ingenuity. Touching the dear objects like worry stones or rosary beads must have been reassuring to any storm-tossed soul. Staking out new frontiers, replica etchings of the Ammassalik Island maps will soon be encapsulated and launched on the Moon Ark as cargo with other tokens of human creativity.

In some Inuit communities, orienteering know-how outlasted the arrival of skidoos and TVs. A researcher from Ontario's Carleton University recalls a modern hunter who retrieved seven fox traps his uncle had set across 20 square kilometres of seemingly flat, monotonous tundra. The traps lay buried deep under snow and had been laid 25 years earlier. The hunter collected them all in roughly two hours.

Psychologists now categorize sensitivity to the natural world as a type of intelligence that augments musical, spatial, emotional, logical, linguistic, and other forms. Linguists in turn say that about one third of the world's languages describe the space occupied by one's body not in terms of right and left but with cardinal directions. Speakers of such languages are said to be more skilled at keeping track of where they are, even in unfamiliar places. For nomadic cultures, travelling light is a virtue; tools are best carried inside one's head and improvised when the need arises, from local materials.

Too often, explorers and missionaries judged harshly the "stone age" technology of people, who never invented gunpowder or the wheel. One wonders, if leaders before Rasmussen and Stefansson had heeded the wisdom required to endure in these barrenlands, how many of Franklin's sailors might have returned. [ASB](#)

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