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Living (with) Ice
Geo-sociality in the High Arctic

ABSTRACT The main tenet of this article is to show how the ice, so visually dominant in the High Arctic, is also a prominent life force. The ice is never still and as it moves, melts or freeze, it deeply affects human and animal life in the region; conversely the diverse life-forms affect the icy environment in their own way and tempo. This interplay exposes the geo-social relations at the centre of this article, taking off from the gradual retraction of the ice after the last Ice Age, opening up for human movement and settlement in High Arctic America and eventually in Thule (Avanersuaq), in Northwest Greenland. Today some 750 people live there as hunters in the unsurpassable old hunting style, yet also as modern as anybody when it comes to outlook. Through brief discussions of particular periods, from the "discovery" of the Inughuit in 1819 and until the present, it is shown how deeply their life is implicated in the living ice, for better and for worse. The ice emerges as a refrain that holds the landscape together. The argument is based both in historical research and in regular anthropological fieldwork in the region over ten years 2007–2017.

KEYWORDS Thule, Inughuit, geosociality, ice age, discovery, Cold War, hunting, seasonality, climate change, unsettlement

The High Arctic region is often perceived as a world of stillness, its deep-frozen landscape more or less barring life.[1] Even in the Nordic countries bordering on and incorporating parts of the Arctic, the far North has mostly been seen as an "other" landscape or a particular kind of wilderness, not least due to the forceful presence of the ice. At closer inspection, the ice is not still, nor does it prevent life. It is a constantly moving life force, shaping and reshaping the region—and making or unmaking spaces for other kinds of life in the process. This includes human life, living off the natural species that are found by glaciers, sea ice, icebergs, and inland ice formations. Here we shall approach the mutual influence of ice and life in the Arctic by unpacking shifting geo-social relations, beginning with the first human arrival in the region in the wake of the gradual retreat of the last Ice Age some 12,000 years ago and continuing until this day. Geo-sociality refers to the entanglement of geological and social processes, so conspicuous in the Arctic (Pálsson & Swanson 2016). In the present context, the history of the Arctic world begins with the arrival of humans, setting the scene for geo-social relations.

The ice has largely defined both natural and social histories in the region, not necessarily in step with each other, but always in dialogue; this is what makes me suggest that the ice itself is a life force. In High Arctic latitudes, there is no way to think of social and natural spaces as actually separate, both are formatted by the ice, including the perpetual permafrost in the landscape, responding to each other's changes—if not always synchronized. Depending on where one is in the region, the ice may be a more or less forceful

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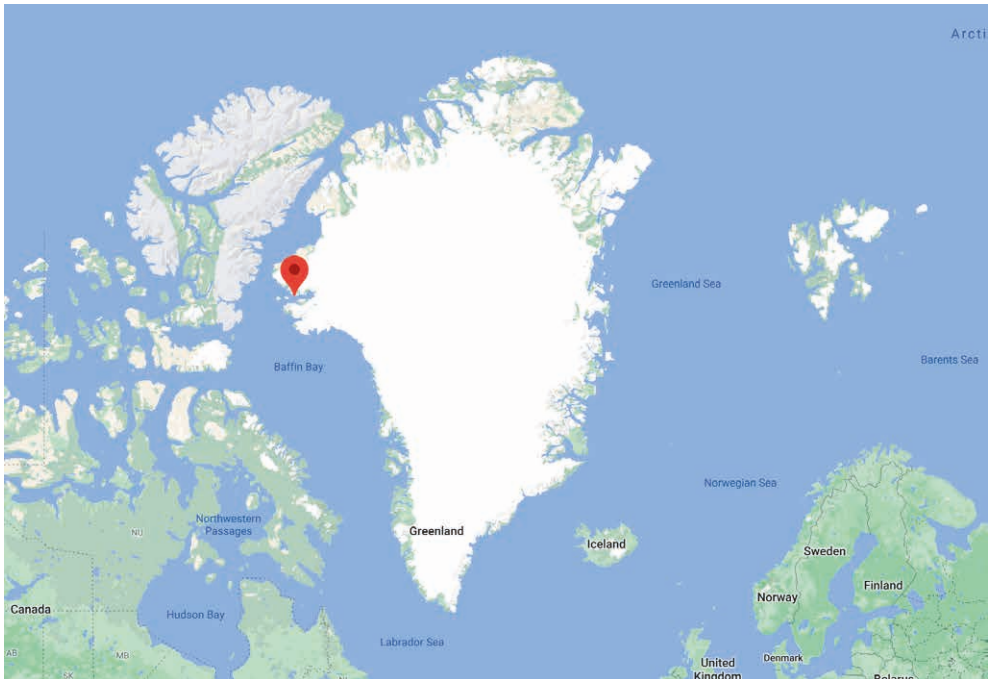
presence in the field of vision, but it is always on the horizon. It impinges upon the imagination, it creates social dramas, and it affords a wildlife on which people subsist, while not leaving much space for vegetation. This is what makes it possible to see the ice as an agent in its own right, and even as an argument in human history (Hastrup 2013). As such it has widely infiltrated representations of the Arctic and become a focal point in a multiplicity of histories and theories about the environment.

This chapter draws strength from anthropological fieldwork in High Arctic Greenland over the past ten years (2007–2017), in a region that is known by the name of Avanersuaq ['the Big North'] within Greenland, while mostly known by outsiders as the Thule Region. The latter name is owed to Knud Rasmussen, a renowned Danish polar explorer, who adopted it from classical Greek notions of *Ultima Thule* emerging out of the mists on the North Atlantic, and widely recycled also in medieval Europe (Hastrup 2007). Thus Thule was temporarily located in Iceland once this island was discovered in the ninth century, yet it found its lasting place only in early twentieth century through the name of the trade station set up by Rasmussen and others in Northwest Greenland in 1910. Naming carries its own geo-social history, often precipitated by scholarship and exploration, and always referring to both concrete and imaginative horizons (Hastrup 2015).

Today, some 750 people have their home in the Thule Region, most calling themselves *Inughuit*, a distinct group of Inuit, but still known also as the *Thule people*. The district is vast and extremely isolated when seen from the south, which is virtually everywhere else seen from Thule. It is the northernmost (natural) habitation on the globe, and it was no coincidence that Robert Peary selected this place as the last and most important stepping stone towards the North Pole, which he "conquered" only because the hunters agreed to help him navigate the ice (Peary 1910). In Thule, living *with* the ice is no metaphor, but reflects a direct and very conspicuous relationship between the shifting materialities of the ice and the itinerant social life. The horizon changes by the year, it now seems, the traditional seasons for hunting and moving about being out of tune with the actual weather conditions, and leaving the animal resources increasingly confused, as the hunters see it. To deal with the tangled relations between ice and life, the notion of geo-sociality offers an analytical perspective that is applicable on multiple scales from the intimate to the planetary, fitting life in the Arctic so well.

Beginnings. The Ice Age

The story of Arctic geo-sociality begins at the end of the last Ice Age, some 12,000 years ago, in the general region of what was later to become known as the Bering Strait. At this latitude, the ice had bound up the water between the two continents, enabling people to walk over from Asia and to begin colonizing the Americas by way of Beringia, as the dry pathway was later to be dubbed. With the gradual retraction of the ice covering North America, people eventually also moved eastwards along the coast and further into Greenland, crossing the narrow strait between Northeast Canada (Ellesmere Island) and Northwest Greenland (Thule). The first arrivals in Greenland took place some 4,500 years ago. Later waves of immigration occurred in between periods with no trace of humans in Greenland at all (Gulløv [ed.] 2004). The last migration into Greenland took place *c*. 1250 CE. The immigrants—retrospectively named Inuit and cast as ancestors of modern Inuit populations in the Arctic—gradually (re-)populated all of Greenland. Thus, the geological fact of the Ice Age and its gradual retraction became a vehicle for human movement, and we have our first example of the social implications of the living ice—and of the agentive materiality of the ice itself (Bennett 2010).



Map 1. Thule/Qaanaaq, 77° N. Source: Google Maps.

Before the arrival of the Inuit, Norsemen from Iceland and beyond had settled in the southerly parts of Greenland from the tenth century onwards, and had even sailed further on to America. The mild temperatures and the felicitous winds of the Warm Medieval Period (*c*. 900–1250 CE), as it is known today, made it possible to cross the North Atlantic and settle in newfound lands, including Iceland (Hastrup 1985). The Inuit immigration into Northwest Greenland took place towards the end of this period, allowing a new people with new technologies such as big skinboats (*umiaks*), kayaks, and dog sledges to move rapidly from Alaska along the Arctic coast of the North American continent, and further into Northwest Greenland (Schlederman & McCullough 2003; McGhee 1997). From here they moved south along the western coast of Greenland. The Norsemen and the Inuit eventually met in the area of the present Disko Bay—the *Norðsettr* of the Icelandic sagas recording the meetings with the barbarians—where there were rich hunting grounds due to the highly productive surrounding glaciers (Hastrup 2009*a*). The most precious prey of the Norsemen was the walrus, whose tusks were a major trade item in Europe and beyond.

These lines of communication were broken when the global cooling, resulting in the Little Ice Age (*c*. 1350–1800), set in and complicated the passage in the North Atlantic. This eventually led to the demise of the Norsemen in Greenland, of whom the last was heard in 1405. In Iceland, the consequences were also dire, as the fragile northern agriculture became unfeasible and livestock deteriorated from lack of hay during the long, increasingly cold, wet, and snowy winters (Hastrup 1990). People suffered all the more, as connections with the Nordic countries became ever more tenuous on the now very windy and increasingly icy North Atlantic; the result was a dramatic population decline. In Greenland, the passage between North and South was blocked, leaving the Inuit in Thule to their own devices for some three centuries—out of contact with their relatives in more southerly parts of Greenland, until they were rediscovered and reconnected with

the outer world in the nineteenth century. Only then did the ice loose its absolute grip on the Arctic coast, and explorers from Europe and America gradually emerged from southern mists.

This was also the time when European scientists began understanding the Ice Age through empirical studies of the glaciers in the Alps and in Greenland, now suggested to be leftovers from then. In 1837, the Swiss scientist Louis Agassiz proposed a glacial theory, suggesting that the entire northern hemisphere had once been covered in ice, of which the Alpine glaciers were remnants. The glacial theory was not easily accepted, as it conflicted with the diluvial theory, explaining the conspicuous presence of huge boulders from elsewhere by a major flooding episode, possibly the Biblical flood in the Mosaic tradition (Rudwick 1969). Clearly, the travelling boulders were of a size that precluded human interference, and as they could be traced back to faraway sources in Scandinavia and elsewhere, a grand theory was needed. The diluvial theory made some sense, and the more so as it became gradually detached from the Biblical tradition, and was supported by prominent naturalists like Charles Lyell (Hansen 1970). This reminds us how recent the understanding of the powerful presence of the ice in the northern hemisphere is.

The glacial theory was to gain further momentum from studies of fossils and their living exemplars carried out by Swedish expeditions to Svalbard; the first was undertaken in 1861 under the leadership of Otto Torell, often seen as the father of Swedish glaciology (Liljequist 1993). Through such work, the Ice Age was identified retrospectively, if reluctantly, from empirical observations of the ice and of ancient fossils of particular species that were still living in the Arctic. This happened in the nineteenth century, at the pinnacle of polar exploration. The ice was recognized as a repository of climate histories in the depth of time. Fossils and other traces in the landscape from earlier ages emerged as strong mementos about the agency of the ice in the making of the entire history of the North (Sörlin 2002: 91–93).

In Greenland the first scientific investigation of the icecap was made by Hinrich Rink in the mid-nineteenth century. Rink was both an administrator of Danish interests in the region, and a scholar who contributed to new knowledge about the language and worldview of the Greenlanders and about the nature of the vast island. In both his work as a governor of South Greenland and as a scientific observer he enlisted Greenlanders as experts, citing them for their knowledge. This enabled him to publish a new understanding of both the icecap and the floating icebergs, concluding that glaciers were outlets from the icecap, under ever more pressure from each year's snow (Rink [1877] 1974: 39–55). He also identified the sub-glacial watercourses running under the ice, and he

> [...] was informed by the natives that this had always been a well-known fact to them. They say that the more abundant the supply of water, and the more violent its motion is in the streams of fresh water which take the form of wells in the front part of the glacier abutting on the sea, the more effective will the glacier be in producing icebergs. (Rink [1877] 1974: 361)

Planetary science and local observations supported each other. This is one reason for pausing at Rink's work; another is his bearing witness to the profound knowledge of nature's stories, as entertained by local hunters who knew the ice-fiords to be productive also as hunting grounds.

Above, Knud Rasmussen was mentioned as the founder of the Thule trade station in 1910. He was also the leader of many Thule expeditions, so named because they were all partly financed by the surplus of the trade station (mainly gained on fox-skin), contribut-

ing vastly to new knowledge of both natural and human conditions in the region. Rasmussen embodied the growing interest in the nature of the Arctic and of its inhabitants (Hastrup 2010*a*). The second Thule Expedition, 1916–1918, being a broad cartographic and naturalist expedition along the northernmost coast of Greenland, took place when the Ice Age had become an established truth. The geologist Lauge Koch was a member of this expedition and he made important geo-morphological observations, which he passed on to Rasmussen who was thrilled to learn about the traces from a past time, when there had been no ice in region. Even today, the inhabitants of Thule sometimes find fossils from before the Ice Age, collecting them and exhibiting them on their windowsills. Koch, who knew about the geological periods, made the following note on the Ice Age, still present in the far North:

> As will be known, almost all of North and Central Europe was covered by one continuous mass of ice, which arched up as a shield from Scandinavia and across the neighbouring countries. A similar case obtained for Canada and the northern parts of the United States. In Greenland, the ice has remained, one is still in the middle of the ice age, and to travel from South to North Greenland is to experience the return of the Ice Age. (Koch 1919: 565)

Koch then guides the reader up north and discusses the various landscapes in terms of their relative position in the history of an emerging ice age. Chapter by chapter we take new steps back in climate history, first experiencing the onset of the Ice Age, then the still firmer grip of the ice, until we reach it in fully blown form—in Thule of course, where the ice covers almost everything. In this way, ancient climate history was depicted in space.

Openings. The Thule People

The people actually living in the depth of the Ice Age in Thule became known to the outer world rather late, as we learned above, and they remained on the edge of vision until far more recently. The first to report on their existence was Captain John Ross, who had been sent out by the British admiralty to find the Northwest Passage in 1818. Having traversed the now less ice-packed Melville Bay, he met a small group of unknown people. Captain Ross, a Scotsman, was quite taken by these fur-clad savages, whom he affectionately referred to as Arctic Highlanders, an interesting analogy between the foreign and the familiar. He wrote:

> The origin of the Arctic Highlanders, or inhabitants of Prince Regent's Bay, is a question as yet involved in peculiar obscurity. They exist in a corner of the world by far the most secluded which has yet been discovered, and have no knowledge of anything but what originates, or is found, in their own country; nor have they any tradition [of] how they came to this spot, or from whence they came; having, until the moment of our arrival, believed themselves to be the only inhabitants of the universe, and that all the rest was a mass of ice. (Ross 1819: 123–124)

While the existence of people in the far North may have been rumoured in legend further south, there was certainly a sense of discovery here. The discovery goes both ways, and while Ross made it back south to report what he found, the Arctic Highlanders began assembling at Cape York, the southernmost promontory in the region, each summer, hoping for more ships and more foreign goods for barter. For them, too, a new world had

opened up. During the Little Ice Age, they had been cut off from their more southerly relatives in Greenland and effectively forgotten them, but they were now reminded of the world beyond the packed ice—a world that apparently could supply them with new materials making their lives easier.

Part of the price paid for this was a temporary decline in their numbers. Ross only met a small group and very briefly, but Elisha K. Kane, who visited the region 1853–1855, made a census of the population, suggesting that there were about 140 people at the time. He observed that people were suffering from famine and saw themselves as doomed. Still, their sense of community was remarkable, as was their keeping track of each other. Kane writes:

> The narrow belt subjected to their nomadic range cannot be less than six hundred miles long; and throughout this extent of country every man knows every man. There is not a marriage or a birth or a death that is not talked over and mentally registered by all. I have a census, exactly confirmed by three separate informants, which enables me to count by name about one hundred and forty souls, scattered along from Kosoak, the Great River at the base of a glacier near Cape Melville, to the wind-loved hut of Anoatok. (Kane 1856, 2: 211)

Within this region, when the sea ice makes travel possible, people move about and exchange news and sympathies and "diffuse through the darkness a knowledge of the resources and condition of all," as Kane adds. Their limited numbers and collective vulnerability made people alert to one another, and to the conditions for hunting across the region. A few years later when Isaac I. Hayes, who had been part of the Kane expedition, made it back to the region, the population had further decreased: Hayes suggested that it was now close to just under 100 people (Hayes 1866: 386). While numbers are always slightly uncertain, Hayes's estimate is a hint about the price paid by the Arctic Highlanders. While eagerly awaiting the arrival of foreigners and goods at Cape York, they became exposed to epidemics that would take a considerable toll in a non-resistant population (Hastrup 2019).

All the way through the "first encounters" with the Thule people that have been documented from 1818 onwards, we hear echoes of ancient images of an ice-clad and inhospitable land and of its strange inhabitants. They live more northerly than anybody else, where it is hardly possible to live at all. The Norwegian Eivind Astrup, who was a prominent member of Robert Peary's first two expeditions in the Thule region in the 1890s, sums it up neatly:

> Our small merry brethren in the Arctic regions represent an extremity of the human race; an insignificant section of it, who take up the battle of existence in regions which to our eyes offer poor prospects for life's sustenance, and where icy death would seem to reign supreme. (Astrup 1898: 48 [Norwegian edition: Astrup 1895: 34])

Wildness, merriness, lawlessness, and freedom—all merge into a sustained image of the unlikely life with the ice, beyond the horizon of civilization.

When Knud Rasmussen first made it to this region with the Danish Literary Expedition (1902–1904) to collect the stories and legends of the Thule people, they were no longer truly unknown, and Peary's regular presence in the period 1881–1909 had lifted their numbers to around 250 and improved their viability by his paying for their services with rifles and other kinds of goods and new materials (Peary 1898, 1: 511–514). Yet the people were still perceived as belonging to the margins of the human world, judging even

from Rasmussen's otherwise so sympathetic account of his first encounter with them, into which ancient imageries of the barbarians weave themselves:

> Never in my life have I felt myself to be in such wild, unaccustomed surroundings, never so far, so very far from home, as when I stood in the midst of the tribe of noisy Polar Eskimos on the beach of Agpat [...]
>
> [...] like a mountain slide, the whole swarm rushed down to the shore, where we had pulled up—a few old grey-haired men and stiff-jointed old crones, young men and women, children who could barely toddle, all dressed alike in fox and bear-skin furs, which create such an extraordinarily barbaric first impression. Some came with long knives in their hands, with bloodstained arms and upturned sleeves, having been in the midst of flaying operations when we arrived, and all this produced a very savage effect; at the moment it was difficult to believe that these "savages," "the neighbours of the North Pole," as Astrup called them, were ever likely to become one's good, warm friends. (Rasmussen 1908: 9–10 [Danish edition: Rasmussen 1905: 7–8])

They did become friends, however, and Rasmussen's book provides an extensive record of their life-ways and narratives. In his diary from the expedition, he speculates about how to present them to his future readers, and not least how to find a title for his book that might convey how "the Polar Eskimos are a free people, living in an indisputably free country, *outside of any law.*" We note in passing that Rasmussen's name for the new people he met in the north was Polar Eskimo; this was to be used in anthropology until the late 1970s, when they themselves took to the name of Inughuit.

As for exploration more generally, the Arctic always posed a particular challenge, if we are to believe the Norwegian explorer, Fridtjof Nansen, whose comprehensive history of polar exploration captures the Scandinavian perception. Nansen asserts:

> But from first to last the history of polar exploration is a single mighty manifestation of the power of the unknown over the mind of man, perhaps greater and more evident than in any other phase of human life. Nowhere else have we won our way more slowly, nowhere else has every new step cost so much trouble, so many privations and sufferings, and certainly nowhere have the resulting discoveries promised fewer material advantages—and nevertheless, new forces have always been found to carry the attack further, to stretch once more the limits of the world. (Nansen 1911*a*, 1: 4 [Norwegian edition: Nansen 1911*b*: 3])

The perceived resistance to penetration of the frozen North accounts for much of heroics so closely associated with Arctic exploration and for some of the passions that drove men to either their success or their demise. An even stronger affirmation of this is found in Antarctic exploration, where no natives were found, at least not of the human kind, and where the magnitude and *unliveability* of the ice suggests that we, the humans, are still "inhabitants and creations of an extended, continuing ice age" (Griffiths 2007: 92).

Within the image of a pristine and primitive life in the High Arctic, however, there was room for rather modern considerations of the far North as an economic asset. After his own first expeditions, Knud Rasmussen urged the Danish government to take action in a region that was increasingly contested between Danes, Norwegians and Americans. The Danish government hesitated, and Rasmussen took it upon himself to establish the Thule trade station in the North Star Bay, renowned for its fine harbour. He organized a private society, called the *Thule Committee*, and found financial support from well-to-do Danes that could supplement a personal loan of a considerable amount. This enabled him, in August 1910, to inaugurate the Thule Station, having a threefold aim: It would open northern Greenland for Danish colonization, it would support scientific expeditions do-

ing research on Eskimo culture within and outside of Greenland, and it would give the Polar Eskimos access to foreign goods and, conversely, serve to export local goods, mainly fur (Sand 1935: 385). The trade station became a major economic success, financing the better part of Rasmussen's seven Thule expeditions, as well as a local health clinic, a new church, a vicarage and so forth.

Invasions. Unmaking Thule

With the trade station, *Thule* had finally found its lasting place on the world map. Mapping is in itself a narrative gesture, by means of which horizons are frozen. Knud Rasmussen chose the name with explicit reference to the ancient Greek term for the farthest North, in Latin *Ultima Thule*, on the absolute outskirts of Earth. The place and its name had disappeared again in the northern mists, from where it would re-emerge later, enticing explorers to new adventures as described by Fridtjof Nansen in impressive detail (Nansen 1911*a*; Nansen 1911*b*). The name continued to carry the symbolic load of a place on the absolute margin of the human horizon, a strange "elsewhere" basically up for grabs—irrespective of the almost invisible community. This not only happened in the Arctic, of course, but our focus here is on the repercussions for the inhabitants of Thule, who were so few and seemed so insignificant in the extensive, ice-covered landscape.

A major onslaught came during the Cold War with the establishment of an American airbase in the middle of the Thule region in the early 1950s, neighbouring the trade station on the headland that was also the central village of the entire district, possibly with some 80 inhabitants on average. The Americans not only appropriated a vital and absolutely central part of the Inughuit's landscape but also stole the name *Thule* for the Airbase. The Airbase was designed both to defend "the free world" against (possible) Russian missiles and to cater for scientific experiments, geophysical and meteorological. The native settlement was destroyed and people forcefully relocated in 1953, along with the trade station (Brøsted & Fægteborg 1987). At the time there were roughly 300 native inhabitants in the district, living and hunting along the entire rugged coast of the district, spanning about a thousand kilometres (Gilberg 1976). Closing off some of their hunting grounds and forcing them to abandon the central part of the district was a major infringement upon their lives. Their fewness and their mobility apparently made the Americans consider the land a void, theirs for the taking. This was a result also of the absence of the Danish state. Thule remained outside of general Danish legislation until 1962, and left to its own law, the *Thule Law*, originally established in 1929 (Thule Law 1929).

The biggest American experiment was with the icecap, of whose depth and plasticity next to nothing was known. Despite the lack of knowledge, the construction of an under-ice city began, that would strengthen the bulwark against Soviet interests in the region. It was argued that the observed retreat of glaciers and the "polar warming" that had been predicted by scientists in the 1930s were a threat to US national security interests (Martin-Nielsen 2013: 52). It was therefore adamant to build up a solid, long-range defence line to protect the Free World, and to build a secret base as a bulwark against enemy onslaught. *Camp Century* was the result.

Camp Century was dug into the icecap, some hundred kilometres from the Thule Airbase on the plain, and was a fantasy-engineering project, widely seen as proof of the American power at conquering the arctic environment. It was to be powered by a nuclear reactor, and designed to withstand nuclear war (Petersen 2008; Nielsen *et al*. 2014). Con-

struction began in 1959; tunnels were made, and the under-ice village—complete with living quarters, infirmary, church, library etc.—was praised as a major feat of American technology. The reactor came last, in 1960; it was deactivated already in 1963 and removed the following year.

The problem was that the engineers did not yet know that the apparent stability of the Icecap masked a constant movement caused by gravity from its centre towards the rims, where it eventually breaks off as icebergs. The movement of the ice is common knowledge today, but then it was not—even though it had actually been suggested by Rink in the nineteenth century, as we saw above. What happened at Camp Century was that tunnels and trenches would gradually deform and bulge, and ceilings would give in.

> Thus in the summer of 1962 the ceiling of the reactor room had drooped so low that it had to be lifted five feet to avoid fatal contact with the reactor. Subsequently Camp Century was reduced to a summer camp in 1964, when the reactor was removed, and abandoned altogether in 1966. (Petersen 2008: 79)

The stories multiply from there and remind us how deeply the heated geopolitical situation during the Cold War impinged on the global mind, barely noticing what went on in the High Arctic.

Nowadays the inhabitants voice a fear that there is still nuclear waste lying around in the ruined Camp Century corridors that may soon break off from within a glacier nearing the sea. A new social crisis lingers in the living ice. Adding to this, the place has become a hotspot for scientists wanting to understand current climate change. For the people living there, the current changes in weather and wind, and most poignantly in the ice, greatly affect the horizon of certainty within which they can act. The future has become increasingly indeterminate because the space for action has shrunk, at least temporarily, with the dwindling of the ice. This is geo-sociality with a vengeance. Meanwhile we should take note of the fact that neither science nor people ever speak in one voice; there is no unified science as opposed to a unified native point of view—even if it appeared so during the Cold War and was widely entertained, also in anthropology. As

Fig. 1. Film-makers seeking to freeze the past. Photo: Kirsten Hastrup.

has recently been shown for Cold War glaciology in Sweden, always a hotspot for studies of the ice, advances in the field were shaped in a battle between divergent agendas and direct contradictions in depicting the causes of climate change (Sörlin 2009).

In Qaanaaq, the town established in 1953 as the main relocation site under the name of *New Thule*, science is again a powerful presence; geophysicists, biologists, technicians, glaciologists, and some anthropologists, seem to tread on each other's toes, at least during the spring and summer season, when the light allows one to work all day and night, and when the cold is bearable. More often than not, the scientists work with local hunters whose skills at sledging and navigating are necessary to move around on the sea ice or across ancient sledge routes on the glaciers; the hunters are paid according to a fixed tariff, set by their own hunting association. There is mostly good will and collaboration, but also some resentment against science, now crowding their everyday life, along with film crews from all over the globe, explicitly wanting to document "the last Eskimos." People begin to resent being portrayed in the past tense; for the hunting community, their life is both for real and for now. The invasion of curious crowds, however laudable their aims, inadvertently contributes to the sense of fragility in the community. The well-meaning invaders are impatient and rarely have much time to spend, stressing the hunters who cannot "book" a narwhal at a time that suits the filmmaker.

The anthropologist evidently also depends on the hunters to understand what it means to navigate the ice, and to live in this place, but do so by going along with the quotidian—and with enough time to wait for the right moment and an invitation. In that position one cannot but marvel at their skills of navigating the ice, whether solid or cracking, whether by sledge on the sea ice, or by motorboat between ice floes, not to mention their generosity in sharing time and reflections with the patient listener.

In May 2010, when I had joined a party of hunters who were going to the ice edge for camping and walrus hunting, I had a chance to talk at length about the manifest changes in local weather conditions with a seasoned hunter. During our conversation he voiced one of his own theories about the rapid climate change. He suggested rather vociferously that the ice-core drillings carried out by scientists on the icecap were at the base of all the negative changes:

> They [the glaciologists] are destroying the icecap. Clearly, they have now drilled in four different places, and obviously the meltdown starts there. A lot of water comes out from under the ice and makes the rest slide. The Americans started it all by carving out large under-ice roads. They wanted to drill all the way towards South Greenland. They were mad.

He had a point about water running under the ice and speeding up the glacier movement, and while hardly an outcome of the ice-core drillings, it still testifies to the ongoing assembling of knowledge and space—as defined by the ice. His outburst combined very different registers of ice-knowledge, with each their temporal and spatial ramifications. It affirmed a highly emotional topography, marked by geopolitics—a specific variant of geo-sociality—and deeply affected the attentive fieldworker (Hastrup 2010*b*).

Melting. The Ice as Infrastructure

Today, global warming is accelerating exponentially in the Arctic. In a community that has lived *with* the ice since prehistoric times, the current changes are unsettling in a profound sense; as the sea ice dwindles and the glaciers retreat, the ramifications of the

entire social life change conspicuously. The ancient communication with the glaciers, also reported from other Arctic regions, begins to dry out (Cruikshank 2005).

The Inughuit, or the Thule people, have lived and hunted all along the rugged coastline from Inglefield Land to Cape Melville, spanning some 1,000 kilometres, since their arrival around 1250 CE. The more or less temporary settlements have been connected by the sea ice, forming a kind of highway between them for some nine months of the year, when the dog-sledges could go anywhere for hunting and visiting. As the all-important infrastructure, the sea ice also allowed hunters to go to ice edge by the North Water in spring, where they could hunt the big marine mammals that were all-important for their survival. The North Water is a High Arctic polynya, or an oasis that is open all year round even in winter; its extent varies, being rather limited in the deep of winter, and dissolving into the surrounding sea during the summer months (Hastrup *et al*. 2018). It was first discovered by Europeans in 1616 when William Baffin made it across the Melville Bay and found an open sea further north, but seeing no people there. It was forgotten again, and rediscovered by Ross in 1818, when the pack ice on the Melville Bay began to recede at the end of the Little Ice Age. Whatever the season, the North Water—with its specific composition of hydrological, biological, and oceanographic features—is what makes both animal and human life at these latitudes possible all year round, and what originally attracted the incoming Inuit from America in the Middle Ages. The present inhabitants of the Thule region still hunt from the ice-edge, but as the ice now retracts earlier, and becomes thinner or too slushy for sledging, the sea ice is increasingly unnegotiable during most of the traditional season of ice edge hunting; consequently, the hunt has dramatically diminished over the past ten or more years (Krupnik *et al*. 2010). This greatly affects life in the region, and we can see how the geological development begins to undermine social relations, so far partly sustained through the sharing of meat. This is geo-sociality close to home, so to speak; with less meat to share among relatives and dogs, social cohesion is threatened and economic differences between households increase.

There are many kinds of accelerating change in the region; the examples show how social practices and community life are deeply affected by global processes on a macro-geological scale, as captured in the notion of global climate change and in the widely distributed knowledge of the meltdown of the ice in both polar regions. People in Thule are increasingly *dis*-orientated as they try to stick it out in the region, where they have so far lived with the ice. They are perfectly aware of what is going on, sharing and seeking knowledge also on the Internet—accessible for the past ten years. Yet, the question of orientation is not a simple matter of making choices about remaining within or moving away from the region, it is a constant and pressing need to collectively assess the opportunities of the present, and to reason consistently about them on the basis of all available knowledge—because it is now that the future is shaped. The intensifying elusiveness of the place hits the Inughuit hard. Yet life goes on and the hunt still offers up moments of wonder and excitement that fuels the topographic emotions. While people are prepared to seek out new opportunities, they prefer to stay in the familiar landscape, which has been their home for eight hundred years—mostly on their own terms and certainly left to their own ingenuity. Their history shows an impressive viability, with hope and flexibility being strong elements of this (Hastrup 2017).

What is extremely important in a threatened field like the one I have come to know in the High Arctic, where both the landscape and the hunt are increasingly undermined by new climates and interests, is to listen for the stories untold—but certainly lived. The present reaches backward and forward in time, incorporating both past occurrences and

Fig. 2. Packing the sledge for travel. Photo: Kirsten Hastrup.

future imaginaries. A recent experience demonstrated how the doom so often attributed to life in the High Arctic does not detract from moments of success and of deep satisfaction with being a hunter, which in turn lends power to the belief in a local future.

One spring a few years ago, I was back in Thule in time for the spring hunt from the ice edge, which in many ways is an adventure, if also a serious one. A hunter who had taken me out on his dog-sledge before agreed to do so once again. With experience, and through the hunter's quiet instructions over the years, I had become less of a liability, because I had gradually acquired at least some of the muscular consciousness needed to read and anticipate the landscape and the movements of the sledge across the far from smooth ice (Hastrup 2018). Out we went, the hunter, his 16-year-old son and myself on the heavily packed sledge. On our way, sometimes a seal basking on the sea ice by its breathing hole was spotted at some distance, and the sunshine made it quite pleasant to simply sit on the sledge and wait while the hunter silently approached the seal, crawling on the ice against the wind, partially covered by the sliding shoot sail. No impatience on my part. After having been cut up, and the sea having been thanked for its gift by receiving a piece of the liver dropped into the breathing hole, the meat was stacked under the reindeer skin upon which we sat.

We then pressed on to the ice edge, where there was already a campsite, with people waiting for the narwhals that came and went along the ridge of the open water. The whales do not give themselves up easily. There is a rule in the region that one must harpoon the whale before shooting it, so that it is already fastened before it is shot; this is to avoid wasting whales. The hunters must also take them from kayaks, not motorboats, whose noise will scare the pack away, and prohibit a fair distribution between families with different access to powerful engines. In short, it is all very traditional and sustainable—biologically and ethically.

After arriving at the camp we began waiting for narwhals along with the small group

Fig. 3. Cutting up bearded seal under the midnight sun. Photo: Kirsten Hastrup.

of hunters already there, some six or seven of them. During the day a number of packs came into the open water between the ice and the neighbouring island and the hunters duly descended into their kayaks, but in vain. Most of them decided to move further out to enhance the opportunities in more open waters, but we remained. The men were alert, and suddenly the 16-year-old came running past the camp along the ice edge, silently, rapidly and in pursuit of a whale trying to get out of the impasse. I could only look as he sped along, jumping over a couple of ice floes, and finally managing to set the harpoon deep into the whale, and holding on to the line, until his father caught up with him and was able to actually shoot it, and to help fasten it properly. A floater (made of sealskin) was blown up and fastened to the animal, which was then steered back to the camp where all hunters soon congregated, having heard the shot, to help drag it ashore. For this they received part of the *mattak*, the skin and blubber that is a major delicacy and a rich repository of vitamins. The ice-edge had made the catch possible.

This was the young man's first narwhal, and the congratulations, handshakes, and high-fives that he received, as did his father, were unending. The delight in his success spread, and it was to continue. Once the whale was cut up, and the meat and *mattak* silently distributed according to unspoken rules, we returned towards Qaanaaq, sitting on top of the spoils. Although it was around 4.30 in the morning before we arrived, people came down to the beach to congratulate the young man on his first narwhal. The rumour had already spread by the satellite phone in the camp (this is now part of the necessary gear, given the uncertain ice conditions and new disaster patterns—and recent satellite coverage, of course). I was so cold at the time that I could not possibly untie my *kamiks* (sealskin boots), and for the first time ever I experienced the tradition of young women

helping travellers with their boots that I knew from the literature. I had thought it was a matter of masculine dominance, because it had always been related by (male) explorers, but I realized how necessary it could be if people had been travelling, and immobile for too long. Relieved of one more preconception, I could go home on frozen feet in my ordinary leather boots.

When later in the morning I told my hosts about the feat, they were delighted on my behalf and repeated again and again that this was a unique experience, and one that they had never had despite a lifetime in the region. I was heartily congratulated on having experienced a "first catch." The delight at the young man's success spread quickly, and it seemed that the entire village talked about it, and about the fact that I had also been there. I was stopped in mid-track over the next few days and congratulated again. Needless to say, I was happy myself, first for having witnessed the successful hunt, and next for experiencing the wider ramifications of pride and pleasure that would unite the inhabitants in a festive atmosphere of celebrating not only the young man but the entire community of hunters for some days. The fact that it was a young man for a moment stalled the sense of their "dying out"—related to the fact that very few youngsters want to become hunters and choose to leave for "the south"—which is everywhere else in Greenland or even in Denmark.

While this is a singular experience, it does speak to the larger issue of the untold stories. The dominant narrative about the High Arctic now is one of catastrophe and cultural loss, owing to a mixture of colonial, climatic, and political threats. This is far too simplistic. After all, people are still there, and they do not live by cultural charters or preconceived roadmaps. The only constant when living with the ice is the immanent challenges that have alerted people to catch the moment, any moment of promise, whether in the shape of ships from the south laden with rifles or of narwhals moving into the fiord and meeting the hunter who is ready and waiting.

So far, the ice has provided an infrastructure for travelling and hunting wherever possible within the region, and while it dwindles—rapidly—people look out for new opportunities, where their ancient skill at seizing any moment will allow them to remain a little longer.

Refrain. Ice and Time

Through this article runs a claim that places and people emerge in dialogue with each other. Implicitly, it has also been argued that there is effectively no distance between the global and the local, the two being deeply implicated in each other, as are past and present. The scales are nested within each other, and they are not necessarily bigger and smaller, but different, also with respect to temporality. *Global* climate change summarizes what *locally* are new experiences of weather and wind. Scholars need to keep both perspectives in mind when dealing with the current challenges to the Arctic as a geographic region and as a lived landscape.

As an anthropologist I do not see myself as an emissary of the Thule people who have taught me about their life and their worries. While coming back again and again over ten years, I cannot but bow to their deep understanding of the environment that they have negotiated and made their home for centuries against all odds. Yet, my role is to *analyse* local actualities and practical experience in relation to larger patterns of climate change across the globe. This implies that I see my friends in the field as agents in their own right, not as specimens—let alone as a cultural entity to be defined by out-

siders. They have to make their own future, together and individually—through their social practices.

To end this story, I shall invoke a notion of *refrain*, as something that marks a terrain through particular motifs and landscapes (Deleuze & Guattari 2004: 356). A refrain in this sense could consist of sounds, which is how birds define their territory, and how church bells have marked European townships. The refrain affords the terrain with a sense of coherence and consistency. One seasonal refrain in Thule re-emerges every year with migrating birds, not least the little auks, coming back each summer to nest and to breed on particular slopes in the region. Their swirling sounds remind people of new promises. Some 30 million pairs of little auks breed in the Thule region every year (Mosbech *et al*. 2018). Yet, in the High Arctic, the dominant refrain rests with the ice—above, below, beyond and within the lived terrain. The sounds of freezing and melting, of glacier streams running, of glaciers calving, of sea ice cracking, of icebergs turning over, of the annual arrival of the narwhals through the pack ice, and of polar bears roaming near the villages when the ice is broken and setting the dogs howling, all of this contributes to the refrain of the ice, by which people know their place. The current changes of weather and climate, and the increasingly dissonant refrain they entail, unsettle the ground upon which the community is built, also quite literally by undermining the rock-solid ground upon which the houses are built on stilts anchored in the ice below. With the weakening permafrost, houses are tilting.

The ice, with all its movements and sounds, has held the landscape together or, indeed, split it up. It has provided the leitmotif of life in the far north, and of the history of exploration as well as of scholarship. It has offered a peculiar combination of extension and intension, offering a vastness of vision, extreme weathers, sonorous sounds of ice, and a particular luminosity, but also offering confined spaces, muted emotions, unheard human voices, barking dogs, and bursts of laughter amidst total silence. The refrain assembles the multiple histories of weather and climate, people and places in the Arctic.

What threatens the High Arctic community at the centre of my analysis is not the dwindling ice as such, but the loss of flexibility. There is (so far) nothing much other than hunting they can live on, while waiting for (possibly) even more massive changes. Yet social resilience depends on flexibility; the main challenge for the Inughuit (and for other people in the Arctic and beyond) is the lack of freedom to experiment and to take risks (Hastrup 2009*b*). Due to the rapidity of the changes, there is not much room for experimentation. Given that the "times of ice" and the "times of life" are totally intertwined, if never synchronic, the ice remains a powerful agent in their history all the while it melts.

NOTES

[1] This article is a revised and translated version of the chapter "Livet med isen. Geosocialitet i Högarktis," in Gustafsson Reinius (ed.) (2020), pp. 84–111.

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