Review

FOX GEARHEARD S and 7 others eds (2013) *The meaning of ice: people and sea ice in three Arctic communities.* IPI Press, Hanover, NH. 412pp. ISBN-10: 0-982170-39-4, ISBN-13: 978-0-982-17039-7, clothbound, US\$50

One of the great achievements of the International Polar Year (IPY) 2007–08 was to bring attention to the 'human dimension' of the polar regions, and to better connect natural with social and human sciences. Sea ice is arguably the most defining element of the polar environment, and has shaped the lives and culture of the Inuit peoples for generations.

One of the most prominent IPY projects in this regard was the *Siku-Inuit–Hila* (Sea ice, people and weather) project, addressing traditional knowledge and sea-ice use in Alaska, Canada and Greenland. *The meaning of ice* is the second book compiled by this project, after *Siku: knowing our ice* (Krupnik and others, 2010). The two books are highly complementary and together provide a comprehensive overview of the deep connectedness of the Inuit to sea ice and their specialized traditional knowledge. While *Knowing our ice* focused on scientific descriptions and exploitation of this traditional knowledge of sea ice, *The meaning of ice* celebrates the role of sea ice in the experience and well-being of the people of the Arctic.

The meaning of ice is not about physical characteristics or dynamic processes of sea ice; it is about how the sea ice is known and connected to ideas of home, to physical, spiritual and emotional nourishment, from harvesting, sharing and eating traditional food to the gift of freedom, to travel and to the practical and life-saving genius that goes into the tools and clothing used every day on the ice. Through these things the book aims to communicate what sea ice means to those whose lives are intimately connected to its annual and seasonal cycles every day of the year.

The book is centered on the five themes of home, food, freedom (travel), tools and clothing, and the language of sea ice. It is compiled from short stories or statements from over 40 Inuit, Iñupiat and Inughuit residents of three different Arctic communities in Kangiqtugaapik (Clyde River, Baffin Island, Nunavut), Barrow (Alaska) and Qaanaaq (Greenland). Each story addresses these themes from the specific local perspectives in each of these communities and from the personal perspectives of each author. While these have many aspects in common, there are interesting differences depending on the nature of the ice and local geography, the ice's seasonality and the region's dominant wildlife.

The book begins with a description of each community from the perspectives of visitors from the other communities. Supported by the *Siku-Inuit-Hila* project, representatives of each community could visit the other two, resulting in revealing (often funny) stories of the similarities and differences between communities. For example, while the bowhead hunt is unique to Barrow, Qaanaaq is known for its almost exclusive use of dog sleds for hunting and travel. Other interesting stories in this chapter are of impressions from airports and travel via the south, on the way to visit those other Arctic communities. It is only 800 km between Kangiqtugaapik and Qaanaaq, and historically Inuit occasionally traveled between these communities by dog sled. However, due to economic pressures and lack of significant passenger interest there are no commercial flights, and today

travelers have to go through Baltimore or even Copenhagen to make the trip. It emerges that the big cities are as foreign and strange to the Inuit as the sea ice may seem to many Southerners.

Chapter 2 discusses sea ice as home. Sea ice is critical as home as much for the people as it is for the animals from which they live. Both are inherently linked with each other and with the ice. One author explains, 'There are breathing holes in the sea ice for seals. Open and un-open breathing holes for sea mammals. Bears also roam on it. When the sea ice thickens, then we are able to set seal nets. Snow comes, then it is good for building igloos. Spring arrives, and seals are denning in sea ice. Late spring comes and seal pups are born on it. This is why the sea ice is home ...' (Laimikie Palluq from Kangiqtugaapik). The chapter describes situations of daily life and hunt on the sea ice, including using the ice as a soccer field. For some, the ice also provides warmth and comfort by supporting abundant seals whose blubber is used for oil lamps.

Chapter 3 demonstrates how the ice facilitates travel to hunting and fishing grounds: 'The importance of sea ice has always been in our lives. Especially in areas of fjords where land travel is difficult, sea ice gives us more freedom for travel. There is freedom the ice brings. Sea ice is the freedom-bringer ...' (Joelie Sanguya from Kangiqtugaapik). Although, in winter, snow on land similarly facilitates travel to hunt caribou or musk oxen, the seasonal growth of sea ice hugely expands the available travelable surface area. Travel over sea ice is more efficient and safer than travel over water, and as such the arrival of a stable ice sheet is longed for by the Inuit.

The most vital tools and clothing required to exist on the sea ice, and the wisdom inherent in their use are presented in chapter 4. 'Our tools and clothing not only reflect a strong connection to life and work with sea ice, but also beautiful artistry and practical engineering' (Toku Oshima from Qaanaaq). Indeed, the chapter demonstrates that clothing not only keeps a person warm, but also serves other purposes, for example to trap air and keep a person afloat who has fallen into the water. Hunters often wear white overcoats to be less visible when approaching their prey. The chapter also lists various tools that reflect the different requirements for hunting different game, whales or seals.

The final chapter presents 'The language of sea ice', the various forms of sea ice and specific terms to describe them. Again, these are often linked to the specific importance certain ice properties have for the occurrence of, for example, seal breathing holes, or travel. There is some focus on specific shore ice features that form throughout the winter under the continuous force of the tides. These are not only obstacles to travel between land and sea, but also characteristic landmarks for orientation. Similarly, the language becomes richer during the melting season, when the ice evolves and disintegrates rapidly, and when safe travel becomes more demanding.

Throughout, the book is full of recent and historic photographs, family photographs, original artwork, children's artwork, hand-drawn illustrations, innovative graphics, maps, and even food recipes. Combined with the texts describing the perception of the situations exhibited, this is the real strength of the book. It gives deep insight into the recent and past life on the ice. Artwork and texts are

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witness to today's rapidly changing life in these communities and will be an invaluable source and archive for all those who do not have the opportunity to visit today, and for future generations. Having visited Barrow and Qaanaaq myself, and just preparing for a trip to some communities on Baffin Island, I feel that the specific atmosphere in these communities and the characters of their inhabitants are well communicated in the texts and artwork, and that I can almost hear them speaking, smell the hunt, or hear the snowmobiles traveling on the ice.

Initially I had planned to read and review this book on a trip to Scott Base, Antarctica, thinking to bring a little human dimension to this desolate continent. However, when I received the book I realized that it weighs about 5 lb (2.25 kg) and is more than a foot (0.3 m) high and wide! Its format is therefore more appropriate for a coffee table then for an airplane seat. But with its artwork and structure it is absolutely presentable as a living-room exhibit for occasional browsing and cross-reading, and will immediately attract the curiosity of any visitor.

The book also touches upon the profound changes going on today in the communities, some of them again closely tied to the ice. Thinner ice, earlier melt and break-up, and later formation bring substantial change to the lives of northern residents, and thus connect them to the global system. While the meaning of ice will not change as long as it exists and returns every winter, its shortening presence will impact on the physical and spiritual service it performs for its residents, as expressed in the opening citation of the book: 'I refer to the sea ice as a beautiful garden. Much of our life depends on what our garden provides. I grew up hunting the marine mammals and this time of year [December] I especially enjoyed hunting for seals by setting up nets under the ice. I used to go out with my dog team early in the morning and whatever I caught fed my family and the dogs ...' (Wesley Aiken from Barrow).

REFERENCE

Krupnik I, Aporta C, Gearheard S, Laidler GJ and Holm LK eds. (2010) SIKU: knowing our ice. Documenting Inuit sea-ice knowledge and use. Springer, Dordrecht

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