

Whales and Whaling in Greenland : Historical and Contemporary Studies

著者 (英)	Shunwa Honda
journal or publication title	Senri Ethnological Studies
volume	104
page range	113-132
year	2021-03-01
URL	http://doi.org/10.15021/00009658

Whales and Whaling in Greenland: Historical and Contemporary Studies

Shunwa Honda

The Open University, Japan

1. Introduction

In the North American Arctic, an area extending from Alaska to Greenland, sea mammals have been an essential element of Inuit subsistence. It appears that adaptation to maritime resources such as seal and walrus may be traced back almost 5,000 years ago, that is from the beginning of a lifestyle fully adapted to the Arctic. Whale products are known from living (household) waste of Saqqaq sites in Greenland dating to 3800yBP or more (Caulfield 1993: 146; Gronnow 2017; Seersholm et al. 2016). Use of whale products may be indisputably traced back to the original inhabitants who arrived around 4000yBP, and there are data that suggest the possibility of whaling at this early date. Maritime mammals have been not only a source of nutrition and manufacturing material, but from the last half of the 20th century whales have become a symbol of ethnic identity and social cohesion, notably in Greenland.

In this paper, I argue that hunting rituals, particularly ritual associated with whales and whaling recorded in many ethnographies dating from the 18th to early 20th century ethnographies have virtually disappeared from modern Greenland society. Many of the concepts and interpretations concerning the phenomenon derive from collaborative research with Minoru Takahashi (Hokkaido University) (Honda and Takahashi 2020).

In this paper Palaeo-Eskimo¹⁾ refers to the culture and society preceding the arrival to the Thule culture, the genetic and cultural ancestors of the contemporary Inuit, into Greenland at about 1200. The indigenous inhabitants of Greenland are formally referred to as Kalaallit²⁾, but here I use the term Greenland Inuit.

2. A Brief Outline of Whaling in Greenland to the 20th Century

The general consensus among archaeologists is that active whaling, that is the capture of living whales in the ocean, dates back to about 2,000 years ago in the western North American Arctic, and 1,000 years ago in the eastern North American Arctic (i.e., Darwent and Darwent 2005: 381–383; Kalland and Sejersen 2005: 21; Savelle 2005: 55; Savelle and Kishigami 2013: 4).

Evidence from two sites in the Disko Bay area of western Greenland indicates the

possibility of earlier whaling activity in the Arctic. At the Qeqertasussuk and Qajaa sites of the palaeo-Eskimo period in the Disko Bay region of north-western Greenland, results of palaeoenvironmental DNA (PalEnDNA³⁾) analyses of sediments indicate that a substantial amount of whale products deriving from bowhead and other species were introduced into the Qeqertasussuk site dating to 3310–4350yBP (Gronnow 2017: 426), and to the Qajaa site dating to 3550–2150 yBP (Gronnow 2017: 428) of the Saqqaq period. PalEnDNA analysis indicate that bowhead whale (*Balaena mysticetus*) accounted to nearly 50% of mammal DNA found from sediments at the Qeqertasussuk site and 35% at the Qajaa site (Seersholm et al. 2016: 5–6).

It may seem unlikely that Saqqaq hunters with yet underdeveloped technology and low population density should be able to capture leviathan bowhead whales, but early ethnographical accounts indicate the possibility (Figure 1). Relatively docile and unwary bowhead and humpback whales are slow swimmers (Banfield 1974: 279, 283; McCartney 1980: 527), and while drowsing or resting on the surface, a single hunter, or several hunters in qajaqs could quietly approach the beast from the rear and thrust a long-handled spear into the whale just behind the pectoral fin, aiming at the heart (Birket-Smith 1924: 334–339; Caufield 1997a: 85; Helms et al. 1997: 73; Holtved 1962: 130–131; Rink 1974: 122; Seersholm et al. 2016: 7).

To my knowledge, based upon a combination of the results of archaeological, ethnographical and palaeo-environmental research, no researcher has proposed the possibility of whaling during the 5th millennium BP in the eastern Arctic. Ethnographic data shows that a single hunter, or several hunters could approach whales sleeping on the

surface and able to capture whales by thrusting long-handled spear just behind the pectoral fin, aiming at the heart. This data indicates that a sufficiently large population and drag floats are not necessarily essential to active whaling.

I fully realize that the data do not unequivocally demonstrate the practice of whaling during the Saqqaq period (ca 4500–2800yBP). It is possible that the PalEnDNA derives from meat scavenged from beached whales (Kalland and Sejersen 2005: 17), or that PalEnDNA does not show a sufficiently fine scale time span for the data analyzed. It is not certain whether 50% bowhead whale PalEnDNA reflects the whole 650 years of occupation, or is the product of an isolated event.

In spite of these flaws in logic, I feel that the circumstantial evidence, such as the abundance of whale DNA, remains of

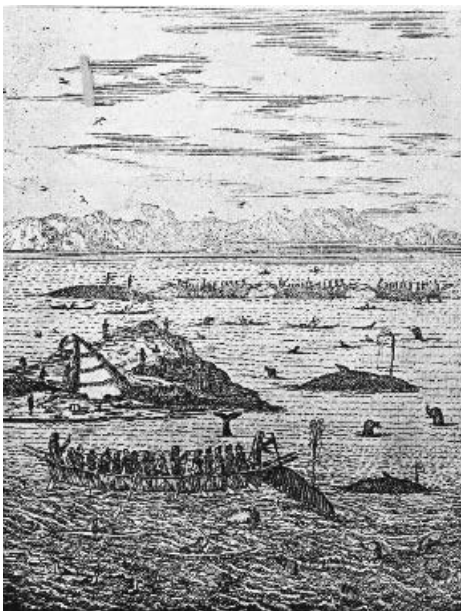


Figure 1 Harpooning of sleeping whale (Birket-Smith 1924: 334)

watercraft and possible harpoon endblades, linked with early ethnographic depictions of how large whales were captured using only equipment similar to that recovered from Qeqertasussuk and Qajaa (Gronnow 2017: 298–403) lends credibility to the postulation that whaling was practiced in Greenland around 4000yBP. The fact that the Saqqaq culture, from the time of its arrival to Greenland, had the technology necessary to exploit large maritime mammals (Bennike and Andreasen 2007: 364; Møberg 1999: 461) indirectly further supports arguments for whaling around 4000yBP.

3. Whaling in Modern Greenland

Here, modern Greenland refers to the period from the beginning of the 20th century to the present. Based upon Caulfield's in-depth research (1997a: 85–102) and some recent corroborative data, I briefly outline whaling for this period.

Three epics may be noted for whaling in modern Greenland, namely 1) whaling by the Royal Greenland Trading Company (in Danish, Den Kongelige Grønlandske Handel, KGH) from 1934 to 1958, 2) the introduction of harpoon cannons mounted on fishing vessels beginning in 1948, and 3) commencement of collective hunting from the 1970's (Caulfield 1997a: 82–85; Government of Greenland 2012: 27). Whale species include belugas, minke whales, narwhals, porpoises. In some areas, bowhead whales, humpback whales and fins whales are hunted (Caulfield 1997a: 77; Government of Greenland 2012).

Prior the whaling activities of KGH, local whaling using traditional equipment and methods from small boats (umiaq, qajaq) continued until the 1910's (Birket-Smith 1924; Rasmussen 1930). In the early 20th century, catches declined severely and sealing went into a slump, resulting food shortage in Western Greenland. In response to the crisis, KGH purchased the catcher boat *Sonja*, manned by a Danish crew, to provide whale meat and other products to the local communities. Following a disruption during WWII, *Sonja* resumed operation in 1946, but due to poor catches and increasing operating costs, in 1958 the KGH ceased all whaling operations.

Greenland Inuit (Kalaallit) had become dissatisfied with Danish control of whaling, and in 1948 a local fisherman mounted a cold harpoon cannon onto a medium sized fishing vessel to commence whaling on a private level. Presently of the approximately 60 vessels (2018) equipped with harpoon cannons, about 40 are certified to hunt minke whales, fin whales, humpback whales and bowhead whales (Government of Greenland 2012: 33). In order to be legally authorised to hunt large whales, the captain must hold an occupational hunter's license (Honda 2019: 116–117) and trained gunners must be on board to fire the cannon and cannons must be formally certified every two years. 1991 legislation mandated that installation of penthrite grenade (exploding) cannon was a prerequisite condition for certification (Caulfield 1997a: 95; Government of Greenland 2012: 57–58).

Vessel size is specified according to the species of whale to be hunted. Approved vessels are not full-time whalers, but operate seasonally and opportunistically. In most cases, fishing is the main source of income, whaling often making only a small

contribution (Caulfield 1993: 153).

Collective hunting that began in Greenland in the 1970's incurred cooperative movement of a minimum of 5 or more skiffs, each boarded by 2 or more hunters armed with large calibre—30 calibre or more, 7.62mm or 9mm—rifles. The practice of driving whales into shallow bays or inlets was outlawed in 1995 and presently in fiords or in open sea boats encircle whales, shooting them with rifles. Detailed discussion of collective hunting may be found in Caulfield (1997a: 91–93) and Dahl (2000: 66–109).

Following the enactment of the Greenland Home Rule Government Act in 1979, small whales (belugas, narwhals) came under the jurisdiction of the Home Rule government (Naalakkersuisut). Small whale hunting areas and quotas are divided among the several administrative districts and quotas for West Greenland (Table 1) and East Greenland (Table 2) are determined by North Atlantic Marine Mammals Commission (NAMMCO).

Table 1 Small whale (narwhal) quotas for West Greenland

Catch district	2013	2014	2015	2016
Qaanaaq	85*	85*	85*	98
Savissivik	18	18	18	70+20
Upernavik	63	63	63	
Uummannaq	85(+5)**	85	85	134
Qeqertarsuaq	20(+5)	20	20	85
Ilulisat	2(+5)**	2	2	
Qasigianniguit	4(+5)**	4	4	
Aasiaat	21(+5)**	21	21	
Kangaatsiaq	6(+5)**	6	6	
Sisimiut	2(+2)**	2	2	6
Maniitsoq	2(+1)**	2	2	
Nuuk	2(+1)**	2	2	2
Paamiut				
Narsaq				
Qaqortoq				
Nanortalik				
Total	310(+42)*	310	310	424

* Quota adjusted by transfer of unused quota from other areas

** Carry over from previous year's unused quota

(Source: Honda and Takahashi 2020)

Table 2 Small whale (narwhal) quotas: East Greenland

Catch district	2013	2014	2015	2016
Ittoqqortoormiit	70(+18)*	70	70	66(50+16)*
Tasiilaq	18(19)*	18	18(+10)*	16
Total	88(+37)*	88	98	82(66+16)*

* Catches transferred from other area

(Source: Honda and Takahashi 2020)

Large whale hunting areas are halved between West Greenland and East Greenland in accordance with the policy agreement concerning Aboriginal Subsistence Whaling with the IWC (International Whaling Commission). Minke, fin, bowhead and humpback whale quotas as of 2010 are shown in Table 3.

Table 3 Large whale quotas (adopted in 2007, revised in 2010)

Country Catch area Ethnic group	Whale species	Quota per year
Denmark Greenland Kalaallit	Fin back	19
	Minke (West Greenland)	164
	Minke (Atlantic coast)	12
	Bowhead	10
	Humpback	10

(Source: Honda and Takahashi 2020)

Two points are important in understanding whaling in contemporary Greenland. The first is that in addition to compliance with IWC and NAMMCO international agreements, as well as consideration to the results of whale abundance surveys, traditional knowledge of occupational hunters is to be consulted in policy decisions. The second point is that in deliberations between hunters and the Government concerning co-management of both small and large whales must include knowledgeable hunters. For example, when determining catch quotas or distribution and pricing of whale products, the National Association of Fishers and Hunters (Kalaallit Nunaani Aalisartut Piniartullu Kattuffiat: KNAPK) and local hunters' association (KNAPP) must be consulted and their views be reflected in the process of determining policy.

See Honda (2019: 111–116) for a review of distribution of whale meat and *mattak*. Whaling has been an integral part of Greenlandic history for several thousands of years, possibly as many as 4,000 years. “Greenlanders consider whaling and Greenland inseparable. With other forms of hunting and fishing, it plays a vital role in Greenlandic life, contributing to food security, health and community identity in an environmentally responsible manner” (IWC 2018: 3).

In view of the fact that whaling and Greenland are “inseparable”, I set out to ascertain what of the rituals and taboos recorded in early ethnographies have been transmitted to contemporary society.

4. The Decline of Hunting Ritual in Modern Greenlandic Society

When traveling in Greenland, one's attention is attracted to the arches formed of baleen whale jaw bones found in many towns (Photo 1) and the many stone monuments carved with scenes of whaling. On the bluff overlooking the Old Colonial Harbor in Nuuk stands a more than 3 meters high concrete *objet* patterned on whale jawbones (Photo 2). The bowhead whale, the central theme of Qeqertarsuaq (Qeqertasussuk) Municipality ceremonial shield (Caulfield 1997b: 251), is also one of many examples that demonstrate



Photo 1 Whale jawbone arch in Kitsissuarsuit (Photo by Shunwa Honda, 2016)



Photo2 Whale jawbone shape object in Nuuk (Photo by Shunwa Honda, 2016)

how closely whales are woven into the fabric of Greenland history and identity. This fact is noted by many researchers of Greenland history and society. For example,

- Whaling fosters a strong sense of community identity (Caulfield 1993: 153).
- Increasingly, whaling also contributes to a sense of Greenlandic national identity (Caulfield 1997a: 110; 1997b: 251).
- Whales had great spiritual significance for Greenlandic hunters (Caulfield 1997a: 82).
- Greenlandic food (i.e., mattak) as an ethnic symbol has taken on new dimensions (Kleivan 1996).
- Consumption of whales is a way to underpin and thus strengthen one's own identity. Mattak is probably one of the most popular and sought-after food items. Serving mattak and other foods stemming from Greenlandic resources is understood as hospitality par excellence, as it links hosts and guests to a common cultural frame of reference (Sejersen 1998).
- (I)t is the common understanding that in order to have a Greenlandic identity the person must eat dried meat, dried fish, raw mattak, etc. Often, they are served at festive occasions, giving them cultural and social significance and making them a symbol of a Greenlandic celebration (Petersen 1985: 299).
- (T)his distribution of meat, blubber and mattak (whale skin) was particularly important, as it provided a sense of security and social solidarity (Marquardt and Caulfield 1996: 108).

On the numerous occasions I have been invited to kaffemik⁴), along with Danish dishes and many sweets, a large piece of mattak was customarily on the table (Photo 3). The many examples of symbolism centred around whales prompted me to investigate



Photo 3 Mattak served on birthday celebration (Photo by Shunwa Honda, 2015)

what rituals and ritual activity related to whaling noted in early ethnographies are carried over into contemporary Greenlandic society. I quote a few examples from early ethnographies:

- When they go whale catching, they put on their best gear or apparel, as if they were going to a wedding feast, fancying, that if they did not come cleanly and neatly dressed, the whale, who cannot bear slovenly and dirty habits, would shun them and fly from them (Egede 1973[1818]: 102).
- Drawing his knife, he cut two small strips of skin from the top of the narwhal's head, and very carefully removed one of its eyes. These strips and the eye he then carried to the top of a small snow-covered hummock of ice two hundred yards distant. In the hummock he cut a hole, in which he carefully laid the eye and the two strips of skin, and painstakingly covered them. He then walked around the hummock three times, clapping his hand and chanting. This done he returned to the narwhal, removed the remaining eye and ate it. after which he and all of the Eskimos cut and ate small strips of the skin.each year when the first narwhal was killed, in order that future success in the hunt be assured, it was necessary for the man that harpooned the narwhal to make an offer of the eye and strips of skin to the spirit to kill many more (recorded at Etah) (Whitney 1910: 362–363).
- (In the Sukkertoppen District) when the men are out hunting white whale, and the women hear the report of shots from the direction where the men are, they run down to the shore and begin to bail water with their hands, as if they were going to empty the sea. This is done in order to prevent the white whale from sinking The men rub their rifle balls with a piece of pumice stone, before they go hunting the (white whale). This reason is the same (Birket-Smith 1924: 335).
- (In West Greenland) the skeleton of a fox, with its snout pointing forward, or the skull of a fox were put in to the stern of the boat, and a grouse's claw or an eagle's beak was affixed to the harpoon shaft (Birket-Smith 1924: 337; Soby 1969/70: 49).
- During whaling in West Greenland, the women who remained at home were required to stay indoors, with all lamps extinguished (Soby 1969/70: 53).

With these examples in mind, I set out to find and record instances of contemporary ritualism relating to whaling and consumption of whale products, but to my surprise and disappointment, I was unable to find a single example of ritual for whaling, and virtually no examples of ritual practiced in other hunting activities. The answer to my request for information concerning whaling ritual was always the same from whomever I interviewed; “No ritual is practiced” (Honda 2019: 117–119).

During my efforts to gather information concerning ritual in whaling, I learned that two distinguished elder hunters, both with whaling experience, are living on the small island of Kitsissuarsuit in Disko Bay, a famous traditional whaling site as well as a Dutch whaling station in the early 19th century. Both hunters (aged respectively 81 and 72 in 2015) kindly allowed me two hours each for interviews.

The interviews were conducted mainly in Danish with some Kalaallisut (Greenlandic) and translated into Japanese by my fellow researcher Minori Takahashi. My first question was about contemporary ritual practices concerning whaling. Both gentlemen clearly stated that no such practices exist. Next, I inquired into past memories of ritualism. To my surprise, here also I was told that neither gentleman knew of any rituals. Fearing that there might be a translation problem, I quoted some examples from the ethnographic material noted above. I also talked of my experiences at Kugaaruk (Nunavut Territory, Canada), making sketches of the dismemberment of seals on the ice and describing the ritual of communal eating of liver and blubber. Both gentlemen expressed slight surprise at these examples, and again said that they did not know of such practices, either today or in memory. This suggests that when both were in their youth, more than half a century ago, ritual practices were no longer a part of everyday life, nor a part of adult dialogue.

In contrast to other Inuit societies, such the Inupiat of north-western Alaska (i.e., Ikuta 2011; Sakakibara 2011), there has been an abrupt decline or disappearance of ritual in Greenlandic hunting activities. Why then did ritual whaling practices fall into desuetude?

5. Circumstances behind the Decline of Ritual in Contemporary Greenland

I suggest four possible scenarios that may have influenced the demise of whaling ritual in Greenland and discuss the viability of each. The four scenarios are;

- (1) Ritual knowledge was forgotten when European commercial whaling during the 17th to 20th centuries decimated the whale population around Greenland and Inuit whaling went into decline.
- (2) Colonial domination and the influence of Christianity impeded the transmission of traditional ritual knowledge.
- (3) Greenland Inuit have adopted a largely utilitarian approach to nature.
- (4) Modernization policy in the second half of the 20th century hindered the transmission of tradition.

The first scenario, that is that overfishing by European commercial whalers during the 17th–20th centuries decimated the whale population around Greenland, and as a result, whaling by the Greenland Inuit declined and ritual knowledge was not transmitted

to later generations. It is a fact that the whale population did decline, but Inuit whaling was not entirely discontinued (Birket-Smith 1924: 335–339; Caulfield 1993: 146; Gullov 2010; Kleivan 1984: 606), so this hypothesis does not satisfactorily explain why ritual knowledge was not transmitted. Furthermore, in my research no contemporary ritual was confirmed concerning seals, caribou etc., in spite of the fact that there was no decline in the population of these species. Data from my research at Kugaaruk, Nunavut Territory, further negates the hypothesis. Although summer sea ice conditions during the Little Ice Age obstructed the migration of large whales into the vicinity of Kugaaruk in the Gulf of Boothia (McGhee 2009: 87–88), ritual associated with hunting, albeit not exactly the same as in ‘traditional’ practice, is being transmitted to the present (Stewart 1992: 78; 1996).

The second scenario surmises that the decline of ritual and other traditional activities was the outcome of the colonial regime of Denmark and Inuit conversion to Christianity. Stated otherwise, the Inuit voluntarily abandoned ritual, the earmark of barbarianism and paganism, in the face of intolerant colonial policy and coercive evangelical missionary activity. On one hand, it is true that the Christian mission combatted the practice of polygamy, blood vengeance and magical practices, but on the other hand, avoided antagonism among shamans. The fact that shamans were among the first converts to Christianity substantiates this observation (Petersen 1984: 634). Let me remark that I neither condone nor defend colonialism, however benevolent, but in contrast to the oppressive dominion of indigenous peoples by England in North America. It is generally agreed that Denmark’s colonial policy was to govern without overly interfering in the daily life of the Inuit (Nuttall 2005: 793; Rasmussen 2000: 117). Education from the 18th century was conducted primarily in Greenlandic (Kalaallisut) (Orvik 1976: 68; Rink 1974: 214–217) and the *Atuagagdliutit* newspaper published in Greenlandic and Danish (Jeremiassen 2002: 98) since 1861, contributed to the preservation of language and tradition (Denmark Ministry of Foreign Affairs 2010).

Colonial rule in Greenland until the mid-20th century basically fostered self-support in traditionally occupied small communities. Colonial rule, although benign in nature, of course brought about many changes, but much of the traditional cultural fabric remained intact (Beukel 2010: 13; Gad 1984: 561; Fleischer 2003: 40–41; Thomsen 1996: 266–267), a point disputed by Graugaard (2009), but generally accepted in the literature (Kleivan 1984b: 700; Loukacheva 2007: 11, 22). Paternalistic isolation (Loukacheva 2007: 21–22; Sorensen 2007: 55) also contributed to the maintenance of traditional society.

This stands in clear contrast to the policy of Canada and the United States where many traditional activities were suppressed or outlawed, such as the prohibition by the Canadian government of the potlatch ceremony in First Nations society of the Northwest Coast or decades of forced enrolment of young children into residential schools far from home communities where native languages were forbidden, (Bunn-Marcuse 2018; Hirshberg 2008; Loukacheva 2007: 11; McGregor 2015: 32–33; Legacy of Hope Foundation 2003). As a result of harsh colonial policy, cultural counter-movements such as the Ghost Dance movement and the Peyote cult (Stewart 2012: 375–376) arose in reaction to the suppression of traditional religion and customs.

Here, I must note a proviso to the above overly simplified portraiture of an idyllic colonial situation in Greenland. Though not coerced (Caulfield 1997a: 36; Kleivan 1984b: 701), many Inuit, under the threat of termination of infrastructure support, were obliged to leave small settlements and remove to population centres. More shocking was the social experiment organised by the State of Denmark and undertaken by the Save the Children Denmark and the Danish Red Cross. In 1951, 22 children were removed to Denmark to be re-educated as “little Danes” (Høeg 2019), but the children never made it back to their families in Greenland and many died prematurely.

Notwithstanding this proviso, harsh colonial rule and merciless Christianity influence does not be cited as a factor in the decline of hunting ritual.

The third scenario attributes the decline and demise of ritual to the Greenland Inuit utilitarian attitude toward nature. To wit, “Greenlanders today have adopted a largely utilitarian approach to nature, and perform fewer and less elaborate rituals that do the Inuit in Canada and Alaska” (Kalland and Sejersen 2005: 267). The logic behind utilitarianism is that ritual was no longer the key to successful capture and use of game, therefore ritual was voluntarily eschewed as being of no utility. I argue that the utilitarian approach to nature was influenced by Denmark’s relatively benign colonial regime and non-coercive modernisation policies discussed below.

The fourth scenario argues that powerful modernization policies pursued by the Danish government in the 1950’s (G-50) (Poppel 2005a) and the 1960’s (G-60) (Poppel 2005b) were decisive factors behind the decline of hunting ritual. After the Second World War anti-colonialism haunted the former colonial Empires as a nightmare, and the Danish government, based on facts like poor living standards, illness, access to basic schooling, etc. developed a plan for a big take off, that of Greenland moving from being non-developed to become a modern society within 10–15 years (Degeorges 2013). Modernisation policy, focused upon industrialization and agriculture, with a particular emphasis on establishing a commercial fishing industry, had a profound effect on Inuit culture and society (Petersen 1984). Here I conjecture that this policy stimulated a shift from subsistence whaling to cash-income fishing. I have yet to find statistical verification to support this conjecture, but it is a fact that there was a transition to fishing during G-50 and G-60 (Kleivan 1984: 701; Poppel 2005a, 2005b). Modernisation policy also determined a new political atmosphere constituting a decisive break with the policies of cultural preservation of the colonial period (Rud 2017: 123). Simultaneously, when implementing post-WWII modernization policies, Denmark took pains to avoid a paternalistic attitude (Degeorges 2013: 7).

This scenario intimates that plans for commercial fishing brought about a decline in whaling, which in turn interrupted the transmission of whaling knowledge and ritual practices. It is a fact that many hunters and fishers, in response to this policy and the new socio-political atmosphere, took up commercial fishing. Although the number of hunters involved in whaling declined, whaling did not cease, but continued albeit on a smaller scale.

Interview results of the two hunters of Kitsissuarsuit show that modernization was not a decisive factor in the decline of whaling ritual. Both born around 1940, grew up to

be hunters 60 or 70 years ago, and undoubtedly had many opportunities to hear hunting stories and reminiscences of elder hunters during their youth. Therefore, their knowledge of hunting and ritual traditions personally extended to the mid-20th century, and vicariously through legends to a century or more ago. If this is a viable assumption, memories of ritual had become extinct long before modernization policies were implemented. Therefore, modernization policy probably was not a factor in the decline of ritual knowledge.

Then, why has ritual tradition, noted in early ethnographies, become indiscernible in contemporary Greenland society? I propose a paradoxical explanation. To wit, relatively benevolent colonial policy of Denmark constituted an atmosphere where there was little fear that traditional culture would be denied or despoiled, so there was little incentive to take protective action or to stress ethnic uniqueness. As I have argued above, such an atmosphere was enhanced by the colonial policy from the early 18th century to the 1950's that fostered self-support in traditionally occupied small communities, and in the education system. Because there was relatively little intervention in daily life, there was little pressure to cling to indigenous traditions. This contrasts to the oppressive colonial policy of England and the continuation of that policy by Canada and the United States, where suppression of ritual and forced enrolment in faraway residential schools (McGregor 2015: 32–33; Graham et al. 1996: 271–324) in Alaska and Canada created an atmosphere where indigenous peoples, in fear of dispossession of traditional culture and customs, persisted in adhering to and codifying tradition and rituals.

Another possible contributing factor to the demise of ritual is the inconspicuous social role of elders in contemporary Greenland. Here, more than an age bracket, elders (*isumataq*) are persons respected for their abundant experience who are receptacles and transmitters of traditional knowledge and custom. They are situational, not institutionalized leaders. Rasmussen aptly states that “*Isumataq* ... in Greenlandic means one who thinks for others (Rasmussen 1930: 66). In Nunavut today, as an institutionalized entity, elders publicly and privately are the bastion of tradition maintenance and integrated into the socio-political system through the IQ policy. However, I do not see a similar situation in Greenland, a point reiterated by Jes Lynning Harfeld (Aalborg University, Denmark: personal communication 2018/11/30). Elderly persons are respected, and are requested to contribute to preserve Inuit culture by working with local schools and youth groups (Laugrand 2005: 552). However, elder's activity and organization are not as institutionalized as in Canada and Alaska. For example, in Canada, the Avataq Cultural Institute organized the ‘Inuit Elders Conference’ in 1981, to be held annually (biennially since 1988), a precedent followed by the Inuit Cultural Institute in Kangiqliniq (Repulse Bay). In Nunavut, elders share their knowledge to preserve the Inuit perspective to adapt to modern conditions (<https://www.gov.nu.ca/sites/default/files/files/Inuit%20Qaujimajatuqangit%20ENG.pdf>) within the Inuit Qaujimajatuqangit Division of the Department of Culture, Language, Elders and Youth, Government of Nunavut. There is no such institutionalised role for elders in Greenland.

This psychology is epitomized in the social and political use of Inuit Qaujimajatuqangit⁵(IQ) in Nunavut. IQ is not just a compilation of TEK, but is also a

code of ethics and principles, as well as behavior based on time-honoured Inuit values and practices to be implemented throughout government and public agencies (cf., <https://www.gov.nu.ca/culture-and-heritage/programs-services/inuit-qaujimajatuqangit-katimajit>). IQ in Nunavut serves not only as vehicle to transmit knowledge, it is also a code of ethics and principles serving as an exemplar of individual behavior. Elders articulate how and why IQ is suited to (Nunavut) Inuit society. (<https://www.gov.nu.ca/sites/default/files/files/Inuit%20Qaujimajatuqangit%20ENG.pdf>).

IQ is also the foundation of political and social relations with other indigenous peoples and the federal government (Government of Nunavut 2013). IQ is statement of (Nunavut) Inuit identity by which uniqueness is emphasized both to other indigenous groups and Canadian majority society. The compulsion to emphasize uniqueness that may be inferred from the table contrasting the geopolitical situations of Nunavut and Greenland (Table 4). Contiguity to the majority society and the former harsh colonial regime, competition with other indigenous groups, all of which do not apply to Greenland, have sparked the necessity to proclaim and emphasize particularity (Hayashi 2014; Honda 2016, 2018). A search of internet for reference to IQ yielded no specific reference to IQ in Greenland, with only passing reference to IQ in Nunavut (site: naalakkersuisut.gl/).

Table 4 Comparison of geopolitical situations of Greenland and Nunavut

	Greenland	Nunavut
Colonial regime (historical)	Benevolent, paternalistic	Harsh, arbitrary
Geographical relation to ruling state	Geographically separate: less intervention.	Contiguous: constant necessity for negotiation.
Political status	Strong ethnic self-government with theoretical possibility of independence.	Territorial status, little possibility of increased autonomy.
Relations with other Indigenes	Greenland Inuit sole Indigenous group.	Contiguous borders with numerous other Indigenes: necessity for negotiation.
Importance of IQ (TEK)	Scant importance to modern sheep farming and commercial fishing.	Essential to ethnic identity and cohesion, and a lever in other political negotiations.
Economic development potential	Large reserves of minerals and petroleum, commercial fishing.	Few mineral reserves, no known petroleum reserves.

I infer that the factors behind the decline of *isumataq* in Greenland parallel those behind the demise of ritual. In a word, the relatively benign colonial and post-colonial regime in Greenland is a determinant factor in the decline of the socio-political role of the *isumataq*.

6. Concluding Summary

I have presented the argument that there has been a conspicuous decline, almost to obscurity, of ritual associated with whaling and other hunting activities in Greenland. This decline cannot be attributed to one single factor, but is the outcome of several

interacting factors. First, I refuted the arguments that influence of European commercial whaling during the 17th to 20th centuries, harsh colonial domination and the impact of Christianity were factors. As a counter-argument, I contend that the relatively benign colonial policy from the early 18th century to the 1950's paralleled by an avoidance of coercion and paternalism during the implementation of the modernization policies in the 1950's and 1960's mitigated against an atmosphere of antagonism and retreat into traditionalism by the Greenland Inuit. Such temperate ruling posture engendered an atmosphere where there is little compulsion or imperative to protect and emphasize traditional practices and customs. I further conjecture that interaction of these factors have been influential in the decline of the *isumataq* in modern Greenland.

As a result of the interaction of several factors, the tendency to a utilitarian approach to nature as indicated by Kalland and Sejersen made ritual in whaling less a cultural imperative without lessening the importance of whales and whaling to Greenland Inuit identity.

Notes

- 1) The bearers of the Thule culture that spread over the North American Arctic about 1,000 years ago are the direct genetic and cultural ancestors of contemporary Inuit, whereas pre-Thule Arctic populations were genetically and culturally distinct (i.e., Gilbert et al. 2008; Raghavan et al. 2014). This population is often referred to in the literature as Palaeo-Eskimo. Friesen (2015), following the initiative of the Inuit Circumpolar Council 2010 (<http://www.inuitcircumpolar.com/-the-use-of-the-term-inuit.html>) (accessed June 15, 2020), proposes that Paleo-Inuit is a better term when referring to pre-Thule cultural traditions. Although this proposal is a constructive solution to circumvent the contentious term 'Eskimo', because the pre-Thule population is not directly ancestral to the Inuit, I use the term Paleo-Eskimo (Hodgetts and Wells 2016).
- 2) Kalaallit is the formal designation of Greenland Inuit, but historically referred primarily to the Inuit of south Greenland (Gad 1984: 563; Gullov 1997: 408–409; Kleivan 1984a: 254; Kleivan 1984: 620; Honda 2018: 185). Here, unless stated otherwise, 'Inuit' refers to the Inuit of Greenland.
- 3) Palaeoenvironmental DNA (PalEnDNA) is defined as ancient DNA (aDNA) originating from disseminated genetic material within palaeoenvironmental samples (Rawlence et al. 2014: 610). Environmental DNA (eDNA) is defined as genetic material obtained directly from environmental samples (soil, sediment, water, etc.) without any obvious signs of biological source material (Thomsen and Willerslev 2015: 4). The PalEnDNA analysis method makes it possible in many cases to detect individual species and the percentage of each species introduced into the site sediments.
- 4) Kaffemik is a family celebration held on special occasions such as birthdays, weddings, anniversaries, etc., where all visitors are welcome to eat cake and traditional Greenlandic dishes.
- 5) Inuit Qaujimagatuqangit (IQ), "that which the Inuit have known to be true", is Inuit

epistemology or Indigenous knowledge and is a unified system of beliefs and knowledge characteristic of the Inuit culture. <https://www.censa-nccah.ca/docs/health/FS-InuitQaujimaatuqangitWellnessNunavut-Tagalik-EN.pdf> (accessed June 15, 2020)

References

- Banfield, A. W. F.
1974 *The Mammals of Canada*. Toronto: University of Toronto Press.
- Bennike, O. and C. Andreasen
2007 Radiocarbon Dating of Walrus (*Odobenus rosmarus*) Remains from Greenland. *Polar Record* 43(4): 361–365.
- Beukel, E.
2010 Greenland and Denmark before 1945. In E. Beukel et al. (eds.) *Phasing Out the Colonial Status of Greenland, 1945–54: A Historical Study*, pp. 13–32. Copenhagen: Museum Tusulanum Press.
- Birket-Smith, K.
1924 *Ethnography of the Egedesminde District: With Aspects of the General Culture of West Greenland* (Meddelelser om Gronland 66). Copenhagen: C. A. Reitzels Forlag.
- Bunn-Marcuse, K.
2018 Textualizing Intangible Cultural Heritage: Querying the Methods of Art History. *Panorama: Journal of the Association of Historians of American Art* 4(2): 1–5.
- Caulfield, R.
1993 Aboriginal Subsistence Whaling in Greenland: The Case of Qeqertarsuaq Municipality in West Greenland. *Arctic* 46(2): 144–155.
1997a *Greenlanders, Whales, and Whaling: Sustainability and Self-determination in the Arctic*. Hanover, NH: University Press of New England.
1997b Greenland Inuit Whaling in Qeqertarsuaq Kommune. In M. Stevenson, A. Madsen, and E. Maloney (eds.) *The Anthropology of Community-Based Whaling in Greenland: A Collection of Papers Submitted to the International Whaling Commission*, pp. 241–260. Edmonton: Canadian Circumpolar Institute.
- Dahl, J.
2000 *Saqqaq: An Inuit Hunting Community in the Modern World*. Toronto: University of Toronto Press.
- Darwent, J. and C. Darwent
2005 Occupational History of the Old Whaling Site at Cape Krusenstern, Alaska, *Alaska Journal of Anthropology* 3(2): 135–154.
- Degeorges, D.
2013 *Denmark, Greenland and the Arctic: Challenges and Opportunities of Becoming the Meeting Place of Global Powers*. Copenhagen: Royal Danish Defence College.
- Denmark Ministry of Foreign Affairs
2010 Factsheet Denmark-Greenland. *Ministry of Foreign Affairs of Denmark*. <http://www.netpublikationer.dk/um/10180/index.htm> (accessed September 10, 2019)

- Egede, H.
1973[1818] *A Description of Greenland*. New York: Kraus Reprint Co.
- Fleischer, J.
2003 *A Short History of Greenland*. Oslo: Aschehoug.
- Friesen, M.
2015 On the Naming of Arctic Archaeological Traditions: The Case for Paleo-Inuit. *Arctic* 68(3): iii–iv.
- Gad, F.
1984 History of Colonial Greenland. In D. Damas (ed.) *Handbook of North American Indians: Arctic*, vol.5, pp. 556–576. Washington DC: Smithsonian Institution.
- Giddings, L.
1961 Cultural Continuities of Eskimos. *American Antiquity* 27(2): 155–173.
- Gilbert, M. T. et al.
2008 Paleo-Eskimo mtDNA Genome Reveals Matrilineal Discontinuity in Greenland. *Science* 320(5884): 1787–1789.
- Government of Greenland
2012 White Paper on Management and Utilization of Large Whales in Greenland, IWC/64/ASW/X, Ministry of Fisheries, Hunting & Agriculture, <https://naalakkersuisut.gl/~media/Nanoq/Files/Publications/Fangst%20og%20fiskeri/ENG/Udgivelser/FJAFinalCaptia%20Whitepaperwhaling2012eng%20DOK9064901806.pdf> (accessed May 24, 2020)
- Government of Nunavut
2013 *Incorporating Inuit Societal Values*. Iqaluit: Government of Nunavut.
- Graham, K. et al.
1996 *Soliloquy and Dialogue: Overview of Major Trends in Public Policy Relating to Aboriginal Peoples*, vol. 1. Ottawa: Minister of Public Works and Government Services Canada
- Graugaard, N.
2009 *National Identity in Greenland in the Age of Self-Government*. Working Paper CSGP 09/5, Peterborough, Trent University.
- Gronnow, B.
2017 *The Frozen Saqqaq Sites of Disko Bay, West Greenland, Qeqertasussuk and Qajaa (2400–900 BC): Studies of Saqqaq Material Culture in an Eastern Arctic Perspective* (Monographs on Greenland, volume 356/Man & Society, volume 45). Copenhagen: Museum Tusulanum Press.
- Gullov, H.
1997 *From Middle Ages to Colonial Times: Archaeological and Ethnohistorical Studies of the Thule Culture in South West Greenland 1300–1800 AD* (Meddelelser om Gronland, Man & Society 23) Copenhagen: Commission for Scientific Research in Greenland.
2010 Commercial Hunting Activities in the Greenland Sea: The Impact of the European Blubber Industry on East Greenland Inuit Societies. *Danish Journal of Geography* 110(2): 357–371.

- Hayashi, N. (林直孝)
 2014 The Construction of Indigeneity: A Case Study of Sheep Farming in Southern Greenland. *Japanese Journal of Cultural Anthropology* 79 (2): 143–163. (「羊をめぐる展望—グリーンランドの先住民性の構築」『文化人類学』79(2): 143–163。)
- Helms, P., O. Hertz, and F. O. Kapel
 1997 The Greenland Aboriginal Hunt. In M. Stevenson, A. Madsen, and E. Maloney (eds.) *The Anthropology of Community-Based Whaling in Greenland: A Collection of Papers Submitted to the International Whaling Commission*, pp. 57–92. Edmonton: Canadian Circumpolar Institute.
- Hirshberg, D.
 2008 “It Was Bad or It Was Good”: Alaska Natives in Past Boarding Schools. *Journal of American Indian Education*. 47(3): 5–30.
- Hodgetts, L. and P. Wells
 2016 Priscilla Renouf Remembered: An Introduction to the Special Issue with a Note on Renaming the Palaeoeskimo Tradition. *Arctic* 69(Supplement 1): i–vi.
- Hoeg, K.
 2019 *Forced Assimilation of Indigenous Children: The Case of the Danish-Greenlandic Experiment*. Malmö : Malmö Universitet.
- Holtved, E. (ed.)
 1962 *Otto Fabricius' Ethnographical Works* (Meddelelser om Gronland 140(2)), Copenhagen: C. A. Reitzels Forlag.
- Honda, S. (本多俊和 スチュアート, H. Stewart, H.)
 2016 Persistence of Traditional Subsistence Ideology in Nunavut Inuit Society: A Comparison of Modern Economic Activities Between Nunavut and Greenland, In D. W. Edgington et al. (eds.), *Japan and Canada in Comparative Perspective Economics and Politics; Regions, Places and People*, pp. 169–182, Japan Studies Association of Canada.
 2018 Climate Change and Local Knowledge in Eastern Arctic Inuit Society: Perceptions, Responses and Utilisation. In K. Omura et al. (eds.) *The World Multiple: The Quotidian Politics of Knowing and Generating Entangled Worlds*, pp. 83–102. London: Routledge.
 2019 Whales in Greenlandic Society: Capture and Utilization. In N. Kishigami (ed.) *Whaling Cultures in the World: Current Status, History and Locality* (Senri Ethnological Reports 149), pp. 105–125. Osaka: National Museum of Ethnology. (「グリーンランド社会の中のクジラ—捕る、分ける、食べる、そして活用する」岸上伸啓編『世界の捕鯨文化—現状、歴史、地域性』(国立民族学博物館調査報告149) pp. 105–125, 大阪: 国立民族学博物館。)
- Honda, S. and M. Takahashi (本多俊和・高橋美野梨)
 2020 Ritual in Whaling of Contemporary Greenland. In N. Kishigami (ed.) *Between Whaling and Anti-Whaling: World Whaling and Its Political/Ethnical Problems*, pp. 101–121. Tokyo: Rinsen Shoten. (「現代グリーンランドにおける捕鯨と儀礼」岸上伸啓編『捕鯨と反捕鯨のあいだに—世界の現場と政治・倫理的問題』pp. 101–121, 東京: 臨川書店。)
- Ikuta, H.
 2011 Embodied Knowledge, Relations with the Environment, and Political Negotiation: St.

Lawrence Island Yupik and Iñupiaq Dance in Alaska. *Arctic Anthropology* 48(1): 54–65.

IWC (International Whaling Commission)

2018 Management and Utilisation of Large Whales in Greenland (Summary), IWC/67/ASW/05: 1–18, <https://iwc.int/greenland> (accessed November 15, 2020)

Jeremiassen, E.

2002 A Greenlandic Inuk Librarian's Point of View on the Future of Inuit Libraries, Language and Literature. In K. Caning and V. Jakobsen (eds.) *Poles Apart—Poles On-line: Proceedings of the 19th Polar Libraries Colloquy*, pp. 97–99. Copenhagen: Danish Polar Center.

Kalland, A. and F. Sejersen

2005 *Marine Mammals and Northern Cultures*. Edmonton: Canadian Circumpolar Institute Press.

Kleivan, H.

1984a Greenland Eskimo: Introduction. In D. Damas (ed.) *Handbook of North American Indians: Arctic*, vol. 5, pp. 522–527. Washington DC: Smithsonian Institution.

1984b Contemporary Greenlanders. In D. Damas (ed.) *Handbook of North American Indians: Arctic*, vol. 5, pp. 700–717. Washington DC: Smithsonian Institution.

Kleivan, I.

1984 West Greenland before 1950. In D. Damas (ed.) *Handbook of North American Indians: Arctic*, vol. 5, pp. 595–621. Washington DC: Smithsonian Institution.

1996 An Ethnic Perspective on Greenlandic Food. In B. Jacobsen et al. (eds.) *Culture and Social Research in Greenland 95/96: Essays in Honour of Robert Petersen*, pp. 146–157. Nuuk: Ilisimatusarfik/Atuakkiorfik.

Laugrand, F.

2005 Elders. In M. Nuttall (ed.) *Encyclopaedia of the Arctic*, vol. 2. pp. 551–552. London: Routledge.

Legacy of Hope Foundation

2003 Where are the Children? Healing the Legacy of the Residential Schools. <http://legacyofhope.ca/project/where-are-the-children/> (accessed May 24, 2020)

Loukacheva, N.

2007 *The Arctic Promise: Legal and Political Autonomy of Greenland and Nunavut*. Toronto: University of Toronto Press.

Marquardt, O. and R. Caulfield

1996 Development of West Greenlandic Markets for Country Foods Since the 18th Century. *Arctic* 49(2): 107–119.

McCartney, A.

1980 The Nature of the Thule Eskimo Whale Use. *Arctic* 33(3): 517–541.

McGhee, R.

2009 The Population Size and Temporal Duration of the Thule Culture in Arctic Canada. In B. Gronnow (ed.) *On the Track of the Thule Culture from Bering Strait to East Greenland: Proceedings of the SILA Conference “The Thule Culture—New Perspectives in Inuit Prehistory”*, Copenhagen, Oct. 26th–28th, 2006. Paper in Honour of Hans

- Christian Gullov*, pp. 75–89. Copenhagen: National Museum of Denmark.
- McGregor, H.
 2015 Listening for More (Hi)Stories from the Arctic's Dispersed and Diverse Educational Past. *Historical Studies in Education* 27(1): 19–39.
- Møbjerg, T.
 1999 New Adaptive Strategies in the Saqqaq Culture of Greenland, c. 1600–1400 BC. *World Archaeology* 30(3): 452–465.
- Nuttall, M.
 2005 Greenland Inuit. In M. Nuttall (ed.) *Encyclopaedia of the Arctic*, vol.2, pp. 790–795. London: Routledge.
- Orvik, N.
 1976 Northern Development: Modernization with Equality in Greenland. *Arctic* 29(2): 67–75.
- Petersen, R.
 1984 East Greenland before 1950. In D. Damas (ed.) *Handbook of North American Indians: Arctic*, vol.5, pp. 622–639. Washington DC: Smithsonian Institution.
 1985 The Use of Certain Symbols in Connection with Greenlandic Identity. In J. Brøsted et al. (eds.) *Native Power*; pp. 294–300. Bergen: Universitetsforlaget.
- Poppel, B.
 2005a G-50. In M. Nuttall (ed.) *Encyclopaedia of the Arctic*, vol.2, pp. 697–698, London: Routledge.
 2005b G-60. In M. Nuttall (ed.) *Encyclopaedia of the Arctic*, vol.2, pp. 698–700, London: Routledge.
- Pringle, H.
 2008 Signs of the First Whale Hunters. *Science* 320 (5873): 175.
- Raghavan, M. et al.
 2014 The Genetic Prehistory of the New World Arctic. *Science* 345 (6200): 9.
- Rasmussen, K.
 1930 *Intellectual Culture of the Caribou Eskimos: Iglulik and Caribou Eskimo Texts* (Report of the Fifth Thule Expedition 1921–24, vol.7 (2–3)). Copenhagen: Gyldendalske Boghandel Nordisk Forlag.
- Rasmussen, R.
 2000 The Sheep-Farming Kujataamiut of South Greenland. In M. Freeman (ed.) *Endangered Peoples of the Arctic: Struggles to Survive and Thrive*, pp. 113–130. Connecticut: Greenwood Press.
- Rawlence, N. et al.
 2014 Using Palaeoenvironmental DNA to Reconstruct Past Environments: Progress and Prospects. *Journal of Quaternary Science* 29(7): 610–626.
- Rink, H.
 1974[1877] *Danish Greenland: Its People and Products*. Montreal: McGill-Queen's University Press.
- Rud, S.
 2017 Toward a Postcolonial Greenland: Culture, Identity, and Colonial Legacy. In P. Soren

- (ed.) *Colonialism in Greenland: Tradition, Governance and Legacy*, pp. 119–144. London: Palgrave Macmillan.
- Sakakibara, C.
2011 Climate Change and Cultural Survival in the Arctic: People of the Whales and Muktuk Politics. *Weather, Climate and Society* 3(2): 76–89.
- Savelle, J.
2005 The Development of Indigenous Whaling: Prehistoric and Historic Contexts. In N. Kishigami and J. Savelle (eds.) *Indigenous Use and Management of Marine Resources* (Senri Ethnological Series 67), pp. 53–58. Osaka: National Museum of Ethnology.
- Savelle, J. and N. Kishigami
2013 Anthropological Research on Whaling: Prehistoric, Historic and Current Contexts. In N. Kishigami and J. Savelle (eds.) *Anthropological Studies of Whaling* (Senri Ethnological Studies 84), pp. 1–48. Osaka: National Museum of Ethnology.
- Savelle, J. and A. McCartney
2003 Prehistoric Bowhead Whaling in the Bering Strait and Chukchi Sea Regions of Alaska: A Zooarchaeological Assessment. In A. McCartney (ed.) *Indigenous Ways to the Present: Native Whaling in the Western Arctic*, pp. 167–184. Edmonton: Canadian Circumpolar Institute.
- Seersholm, F. et al.
2016 DNA Evidence of Bowhead Whale Exploitation by Greenlandic Paleo-Inuit 4,000 Years Ago. *Nature Communications*. doi: 10.1038/ncomms13389: 1–9A
- Sejersen, F.
1998 Strategies for Sustainability and Management of People: An Analysis of Hunting and Environmental Perceptions in Greenland with a Special Focus on Sisimiut, Ph.D. Thesis, University of Copenhagen.
- Soby, R.
1969/70 The Eskimo Animal Cult. *Folk* 11–12: 43–78.
- Sorensen, A. K
2007 *Denmark-Greenland in the Twentieth Century*, vol. 341. Copenhagen: Museum Tusulanum Press.
- Stewart, H. (スチュアート, H.)
1992 Sedentarism and Subsistence Activities: Continuity and Change of Traditional Netsilik Inuit Subsistence and Foodways. *The 6th International Abashiri Symposium: Sedentary and / or Migratory Life in the North*, pp. 75–85. Abashiri: Association for Northern Cultural Promotion. (「定住と生業—ネツリック・イヌイットの伝統的生業活動と食生活にみる継承と変化」『第6回北方民族文化シンポジウム報告—定住と生業』 pp. 75–85, 網走: 北方文化振興協会。)
1996 The Significance of Subsistence Activities in Contemporary Hunting-Gathering Societies. In H. Stewart (ed.) *Contemporary Hunters and Gatherers: Change and Reproduction in Subsistence Culture*, pp. 125–154. Tokyo: Gensou-sha. (「現在の採集狩猟民にとっての生業活動の意義」H. スチュアート編『採集狩猟民の現在—生業文化の変容と再生』 pp. 125–154, 東京: 言叢社。)
2012 Indigenous Peoples of North America. In T. Yamaori (ed.) *Dictionary of Religions*,

pp. 368–377. Tokyo: Asakura Publishing Co. (『北アメリカ先住民』『宗教の事典』山折哲雄監修, pp. 368–377, 東京: 朝倉書店。)

Thomsen, H.

- 1996 Between Traditionalism and Modernity. In B. Jacobsen (ed.) *Culture and Social Research in Greenland 95/96: Essays in Honour of Robert Petersen*, pp. 265–278. Nuuk: Ilisimatusarfik/Atuakkiorfik.

Thomsen, P. and E. Willerslev

- 2015 Environmental DNA—An Emerging Tool in Conservation for Monitoring Past and Present Biodiversity. *Biological Conservation* 183: 4–18.

Whitney, H.

- 1910 *Hunting with the Eskimos: The Unique Record of a Sportsman's Year among the Northernmost Tribe—The Big Game Hunting, the Native Life, and the Battle for Existence through the Long Arctic Night*. London: T. Fisher Unwin.