

PEASANT FISHERMAN WHALING IN THE NORTHEAST ATLANTIC AREA CA 900-1900 AD

Ole Lindquist, PhD



Háskólinn á Akureyri - University of Akureyri
Rit 5 - Publication 5

PEASANT FISHERMAN WHALING IN THE NORTHEAST ATLANTIC AREA, CA 900-1900 AD

Ole Lindquist, PhD

Honorary Research Fellow
St. John's House Centre for Advanced Historical Studies
University of St Andrews
Scotland

Háskólinn á Akureyri
1997

Copyright © 1997 by Ole Lindquist.
All rights reserved.

Lindquist, Ole.
Peasant fisherman whaling in the Northeast Atlantic area, ca 900-1900 AD.
Háskólinn á Akureyri - University of Akureyri. Rit 5 - Publication 5.
Akureyri 1997.

1. Inshore legal régimes - Northwestern Europe - History. 2. Coastal whaling - Northeast Atlantic - History. 3. Whale appraisement - West Nordic countries - History. 4. Whale trapping - West Nordic countries - History. 5. Whale spearing - West Nordic countries - History. 6. Hand harpoon whaling - Northeast Atlantic - History. 7. Danish government whaling initiatives - Iceland - 1750-1830.

ISBN 9979-834-10-2.

Umbrot: Sverrir Sveinsson.
Prentumsjón: PMS.
Bókband: Bókavirkið

Formáli

Fyrir þjóð sem byggir lífsafkomu sína einkum á sjávarfangi er afar mikilvægt að stundaðar séu rannsóknir á sjósókn og sjávarnytjum. Þetta er ekki einasta nauðsynlegt nútímafólki, sem á bágt með að hemja stórtæk veiðitæki sín og veiðigetu, hitt er ekki síður mikilvægt að þekkja hvernig forverar okkar nýttu auðlindir sjávarins sér og sínum til viðurværis. Hvort tveggja er að slíkar rannsóknir bæta stöðugt í sjóð, sem ávaxtar þekkingu á aðferðum og tækni, og hitt að menningin verður auðugri að vitneskju um þróun sína.

Það er Háskólanum á Akureyri mikið fagnaðarefni að dr. Ole Lindquist skuli kjósa að birta meginniðurstöður doktorsritgerðar sinnar um hvalveiðar norrænna útvegsbænda á vegum skólans. Ég er sannfærður um að ritið mun efla alla sem málið varðar til átaka í þá átt að treysta þekkingu og skilning á hafinu umhverfis landið, lífríki þess og þeirri menningu sem sjávarnytjum tengist.

Akureyri, í maí 1997
Bragi Guðmundsson, lektor.

Preface

Research on fishing and uses of the catch is important for a nation that lives off the sea. This is not only necessary for people living now who have to limit the capacity of their large vessels but also to know how our ancestors used the resources of the sea to survive. This research both adds to a store of knowledge of methods and technique and the culture also becomes richer through knowledge of its own development.

It is an honour for the University of Akureyri that Dr Ole Lindquist chooses to publish under its auspices the main results of his doctoral thesis about whaling of northern peasant fishermen. I am convinced that this book will encourage all concerned to develop and deepen their knowledge and understanding of the sea around this country, its life and the culture connected to its use.

Akureyri, May 1997
Bragi Guðmundsson, Lecturer.

To Sidney Holt, for much inspiration,
encouragement and support.

Errata: In the *Contents* on page 5, beginning with Chapter 4, page numbers should read one number higher, *ie*, page 19 should be 20, *etc.*

Contents[1]

Preface 3
Contents 5
1 Introduction: North European whaling history 7
2 Northeast Atlantic maritime adaptation; cetaceans in the Northeast Atlantic Ocean 8
3 Norse littoral and inshore legal régimes; pertinences 11
4 Whale appraisements 19
5 'Njörðr's gift'; God's send; 'fish driver' 22
6 Norse mediaeval to early modern peasant fisherman whaling 27
6.1 Whale drives and trapping 27
6.2 Whaling with piercing weapons 36
6.2.1 Definitions 36
6.2.2 Hand harpoon whaling 37
6.2.3 Spear whaling 39
6.2.4 Gaffing 45
7 Norse hand harpoon tow whaling (as from 1610) 45
8 Summary 51
Figures: 1 Approximate extent of various Norse law provinces in the Middle Ages and the theoretical route of a blue whale recovered in Greenland, 1385 AD, with an identified Icelandic shot 12
2a-c Inshore and littoral legal régimes in Iceland (2a); in Norway (2b); in Orkney and Shetland (2c) 13
3a-b Sketches of the mediaeval to modern landward and seaward property régimes, in Iceland (3a) and Norway (3b) 14
4 Hypothetical primordial Norse landward and seaward property régime 14
5 Whale appraisement scales 20
6 *Hvalvágr* type place names in Norway 33
7 *Hvalvík* type place names in Norway 34
8 Whaling-spear head, as used by Matthías Ásgeirsson *á Bauluhúsum,* Arnarfjörður, Northwest Iceland, until the mid 1890s 41
9 Conjectural routes of whales, in Iceland, from place of spearing to place of recovery, 1657-1725 42
Acknowledgements 56
Abbreviations 57
Selected bibliography: Unpublished sources. Printed sources 59

1 This treatise reflects research embodied in the author's doctoral dissertation (cf Lindquist 1994 ms) which in a few repects has been brought up to date. References will only be to the relevant chapters and appendices (A.#) of the thesis, except for certain important items and such that go beyond the dissertation.

1 Introduction: North European whaling history[1]

Archaeologists have studied the taking and utilisation of marine mammals by coastal inhabitants in northern and western Europe in prehistoric times; historians have studied the Old commercial whaling trade (17th-19th centuries) and the Modern whaling industry (since ca 1870) in detail, and some conspicuous cases of Norse (*ie*, West Nordic/Northeast Atlantic) peasant fisherman whaling in the 18th-20th century have been studied and presented ethnographically. However, studies of Norse whaling and whale utilisation in the Middle Ages and early modern times are comparatively few and neither systematic nor comprehensive, or as U. Schnall (1992) puts it: 'There exists no detailed comprehensive presentation of Scandinavian mediaeval whaling and whale utilisation.'[2] Indeed, the available historical and ethnographical studies are usually brief, focus on individual Nordic countries within their modern borders, apply vague and technically imprecise definitions, and often rely on retrogressive inference and inference from similar studies. The various whaling activities and cases have also been treated in isolation because a theoretical framework for Norse whaling has been lacking. All this entails the risk of circular reasoning and invalid conclusions. The ethnocentric approach may also result in fundamental issues not receiving their due share of attention. In my opinion, many studies of Norse whaling history are flawed for exactly these reasons.

Norse mediaeval and early modern takes of cetaceans have traditionally been associated with (a) the gathering (salvage) of whale carcasses and naturally live-stranded animals; (b) the chasing ashore of smaller cetaceans in all Norse countries but particularly the driving and beaching of longfinned pilot whales in the Faeroe Islands; (c) the driving and seining of orcas and dolphins at a few localities in western Norway; (d) the voe (*kvalvåg*) whal-

1 Cf Lindquist 1994 ms: ch 2 (pp 5-26).
2 Cf Schnall 1992: 221; see also 1993: 11.

ing in Sotra island, Hordaland, West Norway, including the shooting of the minke whales there with 'poisoned' crossbow arrows; and (e) the catching of large whales by hand harpooning in tow whaling.

The last aspect (e) has been central in the picture of Norse Viking, mediaeval and early modern whaling. Since first advanced by G.A. Guldberg (1884; 1889) and especially by F. Nansen (1911a-b), it has been the accepted view in the international scientific community that at least from Viking times the Norse caught large whales using harpoon tow whaling, even in the open sea, and that this tradition faded away in Norway in the late Middle Ages while it continued sporadically in Iceland into the 18th century.

Based on a regional, truly West Nordic/Northeast Atlantic, approach this treatise sketches recently discovered aspects of Norse peasant fisherman whaling into early modern times, together with some related views about cetaceans and the order in, and ecology of, the sea.

2 Northeast Atlantic maritime adaptation; cetaceans in the Northeast Atlantic Ocean[1]

Into recent times the coastal inhabitants in northwestern Europe have subsisted on an economy which draws on both the terrestrial and maritime ecosystems. The combination of economic activities[2] has varied considerably between the regions, resulting in various ways of life or cultural adaptations: so-called 'maritime adaptations'. Until the late Middle Ages these combined economies were subsistence economies and in most cases they remained semi-commercial to the late 19th century. The Norse coastal inhabitants that participated in them we shall call peasant fishermen. Strictly speaking, the Coast Samis of Finnmark were hunter-fishermen-pastoralists but they will here nevertheless be subsumed within the peasant fisherman concept.

Coastal resources are both non-biological and biological, the latter being plants, crustaceans, fish, pinnipeds, cetaceans and birds. In earlier times

1 Cf Lindquist 1994 ms: ch 3 (pp 27-33).

2 *Ie*, mainly gathering, hunting, fishing and, since Neolithic times (after ca 4000 BC), animal husbandry, agriculture and occasionally also tree felling.

forests also in many (southern) places extended to the seaboard. These resources variously belong to the upper shore, the foreshore (inter-tidal zone), the littoral zone (to a depth of 5-10 m), inshore waters and the open sea. Most coastal resources originate locally or regionally but the larger cetaceans are highly migratory species.

In post-glacial times, 8 species of baleen whales (mysticetes),[1] 18 species of toothed whales (odontocetes),[2] 6 seal species and the walrus are known to have existed in the Northeast Atlantic Ocean and adjacent seas. The cetaceans range in maximum body length from ca 1.5 to ca 26 m and are regionally or highly migratory species which move seasonally between feeding and breeding grounds, often over vast distances between tropical/subtropical and temperate/subpolar waters. Some species are entirely plankton feeders, others live on a mixed diet of plankton and shoal fish, and yet others feed mainly on squid, supplemented with seals and porpoises. Some cetaceans are pelagic and rarely come inshore while alive but many come inshore for feeding, mating and rearing their calves. The main bonding is between cow and calf but each species displays a particular social behaviour. Many of them form schools (or pods) varying in size from 5-10 to 1000-2000 animals. Cetaceans communicate, *inter alia,* by sound and orientate, among other things, by echolocation and the Earth's magnetic field.

Particularly in modern times the population (stock) size of many cetacean species has been reduced dramatically and their distribution affected accordingly: Most conspicuous is the over-exploitation of the right whales[3]

---

1 *Ie,* the black right whale or Biscayan right whale (*Balaena glacialis*); bowhead whale or Greenland right whale (*Balaena mysticetus*); minke whale (*Balaenoptera acutorostrata*); sei whale (*Balaenoptera borealis*); blue whale (*Balaenoptera musculus*); fin whale (*Balaenoptera physalus*); humpback whale (*Megaptera novaeangliae*); and the now extinct Atlantic gray whale (*Eschrichtius robustus*).

2 *Ie,* the white whale or beluga (*Delphinapterus leucas*); common dolphin (*Delphinus delphis*); longfinned pilot whale (*Globicephala melaena*); Risso's dolphin or grampus (*Grampus griseus*); northern bottlenose whale (*Hyperoodon ampullatus*); pygmy sperm whale (*Kogia breviceps*); whitesided dolphin (*Lagenorhynchus acutus*); whitebeaked dolphin (*Lagenorhynchus albirostris*); Sowerby's (beaked) whale (*Mesoplodon bidens*); True's beaked whale (*Mesoplodon mirus*); narwhal (*Monodon monoceros*); orca or killer whale (*Orcinus orca*); harbour porpoise or common porpoise (*Phocoena phocoena*); sperm whale (*Physeter macrocephalus*); false killer whale (*Pseudorca crassidens*); striped dolphin (*Stenella coeruleoalba*); bottlenose dolphin (*Tursiops truncatus*); and Cuvier's beaked whale (*Ziphius cavirostris*).

3 *Ie,* black right and bowhead whales.

by the Basque and Old whaling trades and the rorquals[1] by the Modern whaling industry. In contrast we learn from authoritative Norwegian and Icelandic sources between 1600 and 1900 that many large cetaceans occurred regularly in most Icelandic fiords and widely in West, Mid and North Norwegian archipelagos and fiords, and that big concentrations were found in various inshore waters. A historical perspective of a thousand years or more, as in this case, requires awareness of the likely pristine state of the cetacean populations. Scholars should also accommodate natural and man-caused dynamic factors in their interpretations, although such factors are often difficult to quantify.

The *taking* of cetaceans is either *gathering,* including salvage, of dead and live animals (onshore; intertidal; inshore; offshore); *catching* without active pursuit (intertidal; estuarian; inshore); or *hunting*[2] (intertidal; estuarian; inshore; offshore). The natural circumstances, the species, and the sex and age of the individual animal are decisive factors determining the gear, organisation and strategy (*ie,* method) necessary for the taking. Moreover, the geographical and proprietorial circumstances have legal implications as to the ownership of the whale.

Only a part of the cetacean species in the Northeast Atlantic Ocean has played an economic and cultural role *vis-à-vis* the peasant fishermen there, notably the black right, bowhead, blue, fin, minke, humpback, gray, long-finned pilot and northern bottlenose whales, together with the orca, various dolphin species and the harbour porpoise. These cetaceans have different habitats, including seasonal migrations, so they are not found evenly in the vast Norse area.

For the peasant fishermen the taking of cetaceans was part of an economic strategy for obtaining blubber, meat, entrails, sinews, bones, baleen and teeth. A few species also offer oil and wax directly and in the sperm whale one may find the exotic substance ambergris. From prehistoric times

1 *Ie,* blue, fin, sei, minke and humpback whales.

2 As technical terms *catching* signifies the seizure of a living animal while *hunting* implies the active pursuit of a prey with the aim of capturing it.

coastal inhabitants have used these products for their own sustenance, partly for exchange, and in modern times increasingly for commerce. Into the 19th century, Norse peasant fishermen made thorough use of all these products in their subsistence and semi-commercial economy. Blubber was rendered into oil for illumination, waterproofing and lubrication; meat and blubber were used for food, sinews as thread; bones of larger cetaceans for implements and as building material; baleen for lashing, suspension and containers; and crushed bones for animal feed; etc.

We shall now consider the legal and economic circumstances in which the taking of cetaceans was embedded before we turn our attention to the taking itself.

3 Norse littoral and inshore legal régimes; pertinences[1]

All Norse littoral and inshore legal régimes were (and basically still are) allodial (cf figure 1) in which the rights of coastal estates extended into the sea and encompassed, in different ways, the resources in the littoral and the inshore waters, notably seaweed, driftwood, fish, pinnipeds and cetaceans.

A comparative analysis of the Anglo-Saxon/English, Orcadian-Shetlandic, Norwegian and Icelandic littoral and inshore legal régimes yields, in my opinion, the following results:

Firstly, the Icelandic régime (cf figures 2a and 3a) preserves most features of a (theoretical) primordial Norse régime (cf figure 4) in which the terrestrial zones of property rights, *ie*, 'infield' and 'outfield', centering on the allodial farm, extended into the littoral and the inshore waters as 'net

1 Cf Hødnebø 1981; Holmbäck 1981; Lindquist 1994 ms: ch 4 (pp 34-101); A.16.15 (pp 736-738).

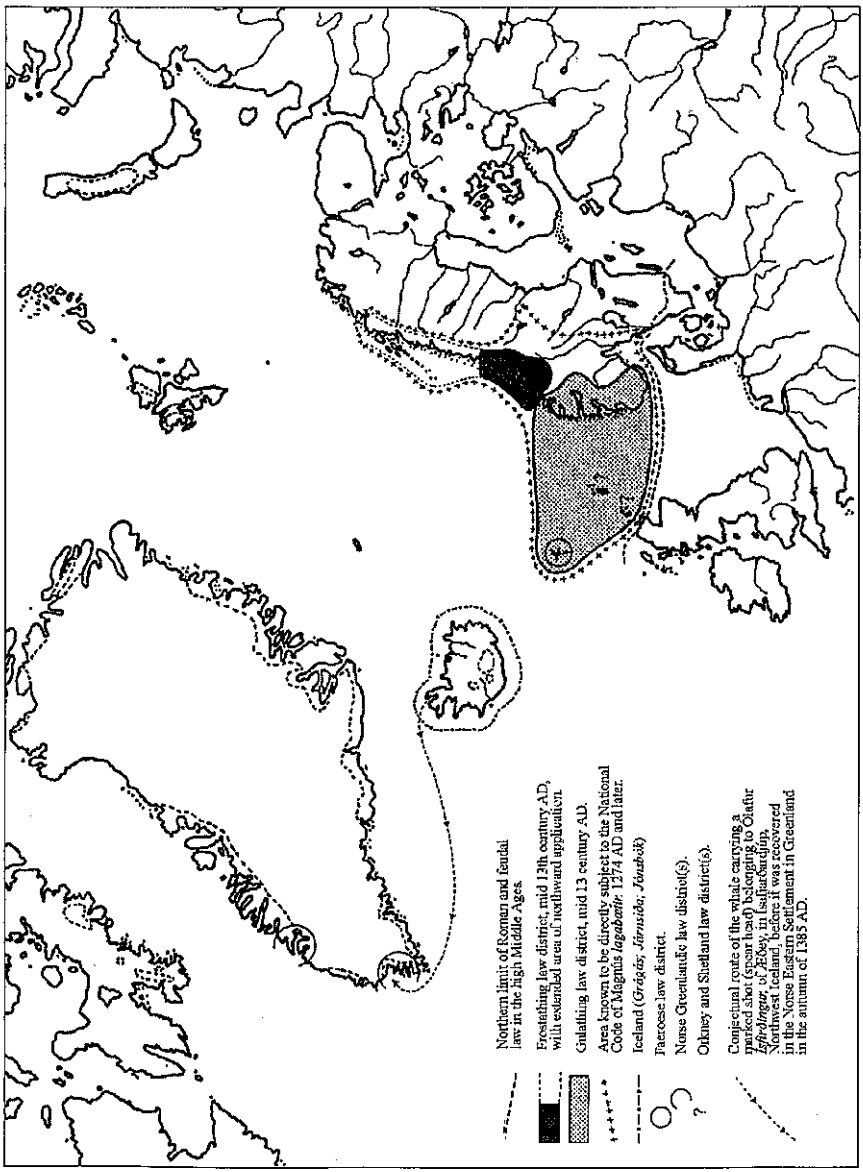


Figure 1. Approximate extent of various Norse law provinces in the Middle Ages and the theoretical route of a blue whale recovered in Greenland, 1385 AD, with an indentified Icelandic shot.

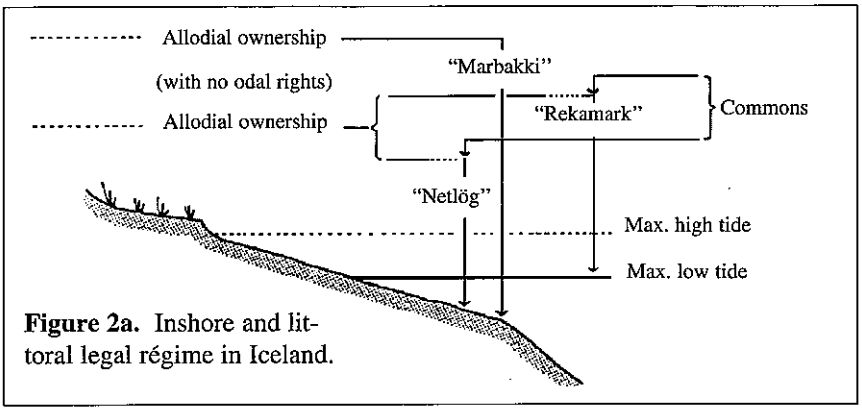


Figure 2a. Inshore and littoral legal régime in Iceland.

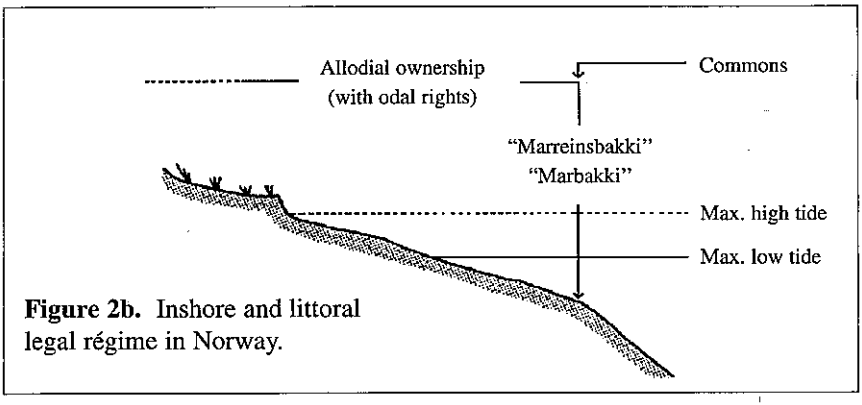


Figure 2b. Inshore and littoral legal régime in Norway.

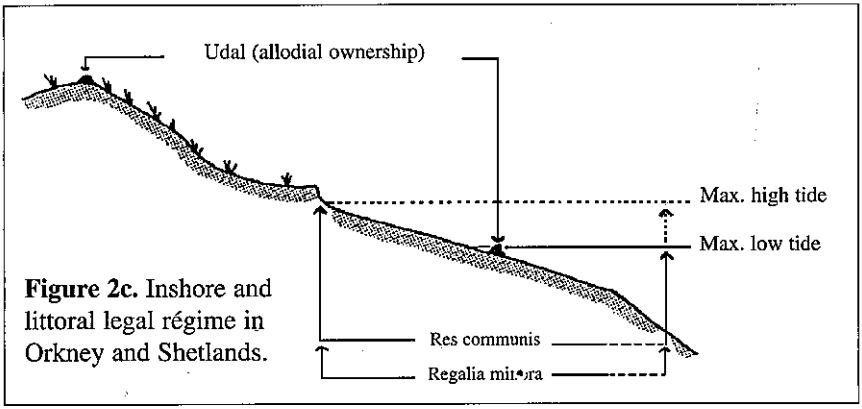
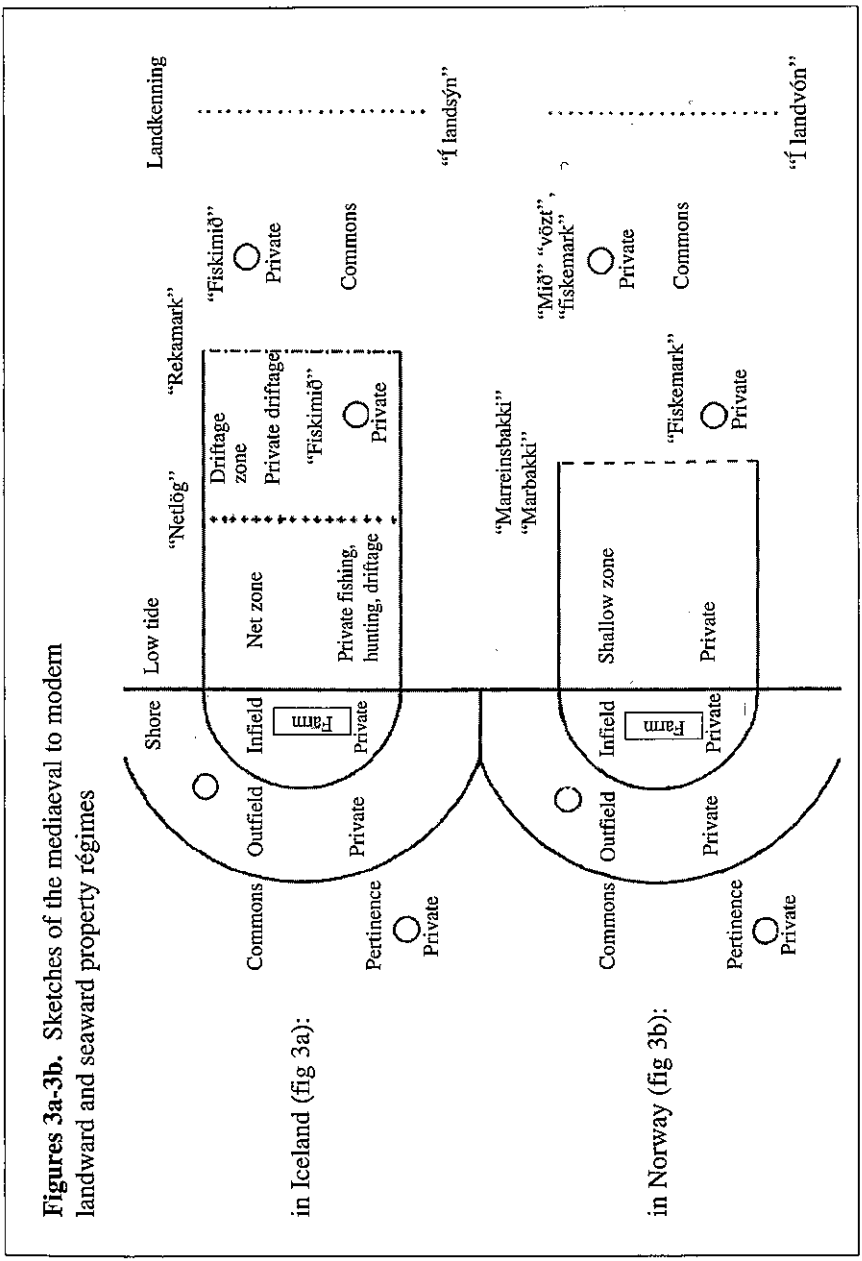


Figure 2c. Inshore and littoral legal régime in Orkney and Shetlands.



Figures 3a-3b. Sketches of the mediaeval to modern landward and seaward property régimes

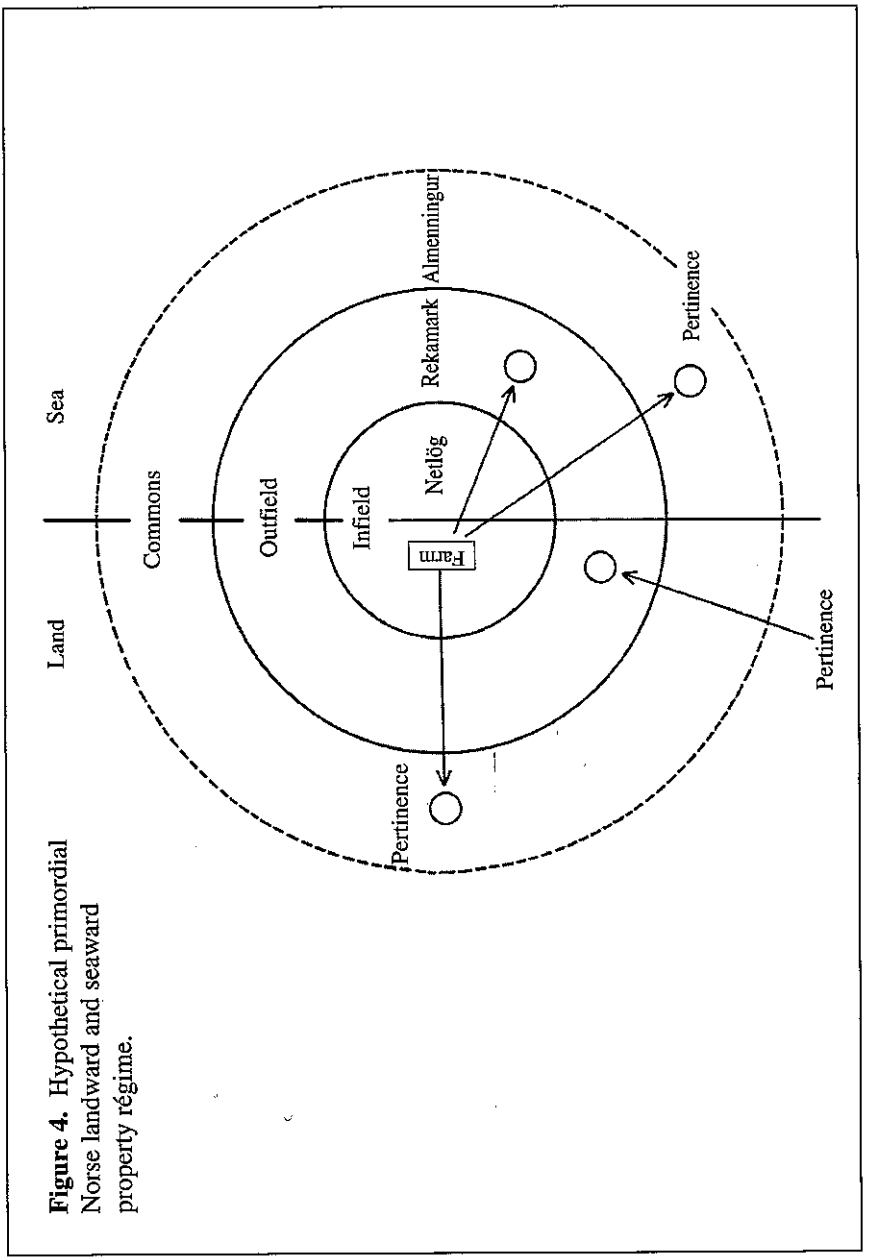


Figure 4. Hypothetical primordial Norse landward and seaward property régime.

zone' (*netlög*)[1] and 'driftage zone' (*rekamark*),[2] respectively, outside which were the commons.[3,4,5]

---

1 The shore estate had almost exclusive hunting and fishing rights within the *netlög* ('net limit'), defined as the point by ebb where a seal net 20 meshes deep stands on the bottom with floats at the surface, *ie*, by a depth of 6.9-7.5 m, whether at skerries or the mainland. (Cf Finsen 3, 1974: 654; GG 1b: 125, 133; 2: 514f, 533; 3: 384f, 406f; JB vii 61; Vídalín 1854: 22f).

2 Towards the open waters and (opposite) neighbours the *rekamark* ('driftage limit'; also called *fiskmark, fiskhelgi*) applied. It was located at the point where a split and spread-out cod, 'one ell between the wings' (belly walls), displayed from a boat in the direction of the land, could be seen from the lowest ebb on shore, within which limit the shore estate generally held all rights to driftage, notably of wood and whales (cf GG 1b: 125; GG 2, 528; GG 3: 402, and JB vii 65). In practice, the driftage limit will have been between 300 and 600 m off shore (cf Lindquist 1994 ms: 93).

3 Cf GG 2: 513, 515; JB vii 67. JB (vii 68) contains a passage about the shore proprietor having rights to seals, porpoises and 'fish other than whales' above the *marbakki*. This appears to be a 'Norwegian' provision which has gone unnoticed in the Icelandic practice.

4 Recent archaeological research in Denmark (cf Andersen 1995: 62; Pedersen 1995: 85) gives reason to expand this hypothesis as follows: (1) that in late Mesolithic (ca 5,000-4,000 BC) to Neolithic times in Denmark and wider in southern Scandinavia coastal settlements were located in proximity of good fishing sites; (2) that fish and whale traps (so-called garths) constituted the predominant means of inshore catching; (3) that fish and whale garths from the beginning were entities of exclusive rights for the settlements which had erected them, a principle which accompanied this traditional gear to modern times (cf chapter 6.1, below); (4) that Mesolithic settlements had otherwise preferential rights to use the surrounding sea and land; (5) that in Neolithic times (after ca 4,000 BC) the continued great economic importance of fishing in waters directly off the settlement (farmstead) resulted in these waters becoming part of the farm on a par with the infield; and (6) that from this situation the postulated primordial Norse landward and seaward property régime developed.

5 *Egils saga Skalla-Grímssonar*, written in the first quarter of the 13th century AD, and *Grettis saga Ásmundarsonar*, written a century later, contain passages which seem to shed light on how the primordial Norse littoral and inshore legal régime gradually became established in Iceland. In *Egils saga* (ch 29) it is said about Iceland during the Settlement Period (ca 870-930 AD) that 'whales came then also in great numbers and everybody was allowed to shoot as he pleased' (cf Nordal/ÍF 2, 1979: 75). About 930 AD, the Althing was established as the general assembly in Iceland and a modified version of the West-Norwegian Gulathing Law, the so-called Úlfljót's Law, was adopted as the basic law of the commonwealth. (Cf Benediktsson 1968/ÍF 1: 6f, 313). For some centuries to come the law continued to be memorised and recited at the law things. *Grettis saga* (ch 9) mentions that certain early settlers had not divided comings/driftage (*reki*) among themselves 'because they were then so plentiful that everybody took what they wanted'. However, after about three generations this resulted in a fight over a whale. The case was referred to the Althing and the saga states that Þorkell Þorsteinsson *máni*, lawman 970-984 AD, then decreed an equal division of the particular rights involved and that 'hereafter it is law that everyone owns the comings/driftage off his land' (cf Jónsson/ÍF 7, 1964: 23, 31f). This has been taken to mean that 'the legislation about comings/driftage was made by the Althing' in the latter half

Secondly, the mediaeval Norwegian régime, as stated in the legal codes of the 12th-13th century AD (cf figures 2b and 3b), was a modification of this primordial system that limited the rights of the shore estate to a 'shallow zone' ('above the *marbakki*')[1] and established a partial royal prerogative in cetaceans even on allodial ground.

Thirdly, the Orcadian (-Shetlandic) so-called Udal ebb limit[2] (cf figure 2c) was not Norse but rather indigenous/Anglo Saxon/English in origin and it possibly influenced the establishment in Norway of the *marbakki* limit. This constitutes a reversal of the hitherto accepted paradigm of legal historians.

Fourthly, the Icelandic (and by extension the primordial Norse) régime, with its wide 'driftage zone', *inter alia*, reflected the circumstance that the method used in hunting large cetaceans was spearing (rather than harpooning) which depended on recovering the drifting and stranded carcasses (cf chapter 6.2.3, below).

of the 10th century AD, as later found in GG 1b: 123 (cf Jónsson 1964: 32). However, the continuity from the primordial Norse littoral and inshore legal régime to the comprehensive early mediaeval Icelandic régime implies that early Icelandic lawmen did not establish new principles in this respect; rather they seem to have reiterated early Norse common law as being applicable in Iceland and, by the same token, presumably urged neighbouring coastal estate owners to formally delineate their mutual boundaries, pertinences and easements (cf below) in order to avoid conflicts in the meanwhile fully claimed country.

1 Cf GTL 95; MLL vii 65; NLB vi 62; NL 5-12-17. Beyond the point where the subtidal slope (*marbakki*) begins is the 'deep' (*djúp*) which is common (cf MLL vii 64 and 65) (cf Lindquist 1994 ms: A.16.15 [pp 736-738]). The conclusion that the *djúp* is a legal category and that the shore estate extends to the sailing depth seems supported by details found in ch 10 of *Magnúss saga berfœtts*. There it is told that according to an agreement (in 1098 AD) with the king of Scots, Magnus Barefoot should have all islands off western Scotland between which and the mainland he could 'travel' (*fara*) 'with the rudder set'. The symbolic role of the 'set rudder' is even more obvious when Magnus is said to have claimed Kentyre by sitting in the stern holding the tiller of the set rudder while his ship was being pulled over land! (Cf Aðalbjarnarson/ÍF 28: 224).

2 Shore estates in Orkney and Shetland were in 1480 said to extend "[...] fra the heast stane of the hill to the lawast in the ebb" (cf Johnston and Johnston 1907-1913: 52f [dipl 32]) and, similarly, in Orkney, in 1509, "fre the said [...] stane to the lawest of the se and sand" (cf Clouston 1914: 81f). To the present day the Udal maxim regarding ownership in the foreshore has remained '... to the lowest (stone) in the ebb'. In the 18th and 19th centuries its application to cetaceans was challenged and in 1890 finally overruled in Scottish courts by feudal-Roman legal principles. Thereafter the foreshore in the Northern Isles could be used freely by anyone for, *eg*, driving pilot whales ashore without having to render an often considerable share of the catch to the shore estate.

Within these structures and boundaries pre-19th century legal and economic relations often involved that two or more parties each held specific rights in the ground, *ie*, the land ownership was separated from possession and subjected to certain rights or benefits in favour of others (so-called servitudes). It is useful to distinguish between pertinences as involving material benefits (such as pasture, forest, fishing, etc) and easements which enabled or facilitated people's enjoyment of their private property or the commons (*eg*, passageway, boat landing). Pertinences and easements mingled estates, private, communal[1] and common property and rights. Especially where terrestrial commons continued to exist, the delineation of private, including communal, property *vis-à-vis* the commons was in practice gradual and often uncertain because of separate titles to pertinences and easements, and (uncertain) prescription thereto.

From Norway and Shetland the legal formulas offer the following spectrum of pertinences, *viz*: houses and tofts; forests; fishery; fowling; fishing stations; seal colonies (sealing grounds) – located within the farm garth and outside it; between the mountain (fell) summits and the foreshore; near or far away; on sea or land; to the boundaries of other people. The range of pertinences can be seen from the enumeration, in 1748, regarding 191 benefices in Iceland, each usually having more than one pertinence: pasture (in 76 instances), foreshore (*ie*, including whales; 76), 'forest' (*ie*, scrub; 61), sea fishery (59), hay making (24), egg collection (21), sealing (19), salmon fishery (9), fowls (5) and trout fishery (5).

Sealing grounds (*selver*) could be private property. The taking of a seal in another man's sealing ground therefore drew the trespass fine (*landnám*), so did entering it without due permission between 3 June and 3 December.[2] Private traps could be erected and kept in the commons and remained private property for ten years (*spjótgarðr*; 'spear garth') and twenty years (*dýr(a)garðr*; 'animal garth') after they had last been used.[3] 'Whales' (in practice implying all cetaceans) and 'whale comings' (*hvalreki*) were among

1 *Ie*, undivided private property of particular proprietors.
2 Cf ÆB 146; FTL xiv 11; GTL 91; MLL vii 65; NLB vi 62; NL 5-12-14,15.
3 Cf FLT xiv 9; see also MLL vii 63.

the most important coastal pertinences (*hlunnendi*)[1] and often subject to servitude (*ítök*, I).

In old and modern Icelandic separate titles to pertinences (and easements) are called *ítök* (pl; *ítak*, sg) and in (older) Danish *servitus*, *servitut(ter)*, *rettighed(er)*. The laws of the Icelandic commonwealth called *Grágás* (GG) provide for the buying and 'selling [...] *ítök* in other people's land'.[2] A foreshore subject to such servitude pertinences was called *ítaksfjara* (*-fjörur*, pl) and *servitut-forstrand* (*-forstrande*, pl, D). An estate without such servitudes was said to be *ítakalauss* (ON). To mention but one example: In 1367, Staður church in Steingrímsfjörður, Strandasýsla, Iceland, owned the glebe 'with all pertinences', similarly another farm 'with all pertinences, grass, egg collecting (and) sealing ground [*selver*], whale comings [*hvalreka*] and wood comings [*viðreka*] and *ágóði*', and at a third one, *inter alia*, 'the full half of whale comings and wood comings, *ágóði*, sealing ground [*selver*]'.[3]

In the Icelandic whale division, blubber, *rengi*,[4] tail and tongue were weighed (called *vogarhval(u)r*; 'weighed whale'); all other valuables (*fé-mæti*) that could not be, or were not, weighed (*eg*, bones, baleen, intestines, sinews and oil from the head of the sperm whale) were *ágóði* (*ágóðahlutr*; 'benefits'). In Iceland it was since commonwealth times a legal requirement to divide as much as possible by weighing on scales. Scales were presumably also erected for that purpose in other Norse countries. Otherwise people used, *eg*, baskets and kipes in the division and counted what could be divided that way (baleen, teeth and bones).

1 The basic term for pertinence is *hlunnendi* (pl, ON; *hlunnindi* ON, I; *lunnindi(r)*, F; *lunnende*, NN) which in later Danish and Norwegian is called *herlighed(er)*.

2 Cf GG 1b: 77f; see also GG 1b: 221; 2: 415.

3 Cf Anon 1896: 230 [dipl 182].

4 *Ie*, the semi-fatty tissue from the ventral grooves of rorquals.

4 Whale appraisements[1]

Scholars have hitherto dismissed the measures of cetaceans, stated in 'ells', in mediaeval to late 18th century Norse sources as being often 'exaggerated' and generally unreliable.[2] A systematic examination of these data and details from the history of the Faeroese pilot whale appraisement show that these 'ell' measures in many cases do not denote overall body length measured by the (old) Norse standard ell of ca 47.4-49 cm (which without problems can be approximated to 50 cm) but rather appraisement sums applying a unit called **hvalsalin* ('whale ell'; *alin* for short). Presumably the scale used (cf figure 5, scale a) involved that each (old Norse) ell in the length of the whale's trunk, measured between the eye and the genital slit (being about half of the overall length in potential species like the rorquals and the longfinned pilot whale), equated 5 **hvalsálnir* in appraisement. As such appraisement sums, the stated size figures appear to be very reliable for all species, from the harbour porpoise to the blue whale. This way of appraising cetaceans seems to go back at least to the early Middle Ages.

It looks like the Faeroese sometime during the Middle Ages renamed the **hvalsalin* (whale) *skinn* to conform with their denominations of value (or currency) and land. This may be explained by the fact that the division of whales usually followed proportionally to the size of the infields of the (shore) estates.

About 1800, the Faeroese presumably applied the old Norse appraisement scale in a slightly modified form (cf figure 5, scale b) the character of which we shall return to later. In 1832, the enactment of the first Pilot Whaling Statute (*Grinderegulativ*) was accompanied by the adoption of a

1 Cf Lindquist 1994 ms: ch 7 (pp 229-296).

2 For example, in *Konungsskuggsjá (Speculum Regale; Royal Mirror)*, written in the period 1240-1263 AD in Norway, we find the following size figures for the various marine beings: *hnýðingr* (longfinned pilot whale): 10-20 *álnir* ('ells'); *hnísa* (harbour porpoise): ≤ 5 *álnir; leiftr:* ≤ 7 *álnir; vögnhvalr* (orca): ≤ 12 *álnir; andhvalr* (northern bottlenose whale): ≤ 25 *álnir; svínhvalr* (northern bottlenose whale): ≤ 25 *álnir; fiskreki:* ≤ 30 *álnir; hafurkitti* (black right whale): ≤ 30 *álnir; hrosshvalr:* ≤ 30-40 *álnir; rauðkembingr:* ≤ 30-40 *álnir; náhvalr* (narwhal): ≤ 20 *álnir,* tusk 7 *álnir; skeljungr* (humpback whale): ≤ 70-80 *álnir; norðhvalr* (bowhead whale): ≤ 80-90 *álnir; reyðr* (blue whale): ≤ 130 *álnir; norðselr:* ≤ 4 *álnir; náselr:* ≤ 4 *álnir; erknselr:* ≤ 5-6 *álnir; flettuselr:* ≤ 5-6 *álnir; granselr* (bearded seal): ≤ 6-7 *álnir; opnuselr:* ≤ 4 *álnir; skemmingr* (ringed seal): ≤ 2 *álnir; rostungr* (walrus): ≤ 14-15 *álnir.* (Cf Holm-Olsen 1983: 15-17, 28f, 148f).

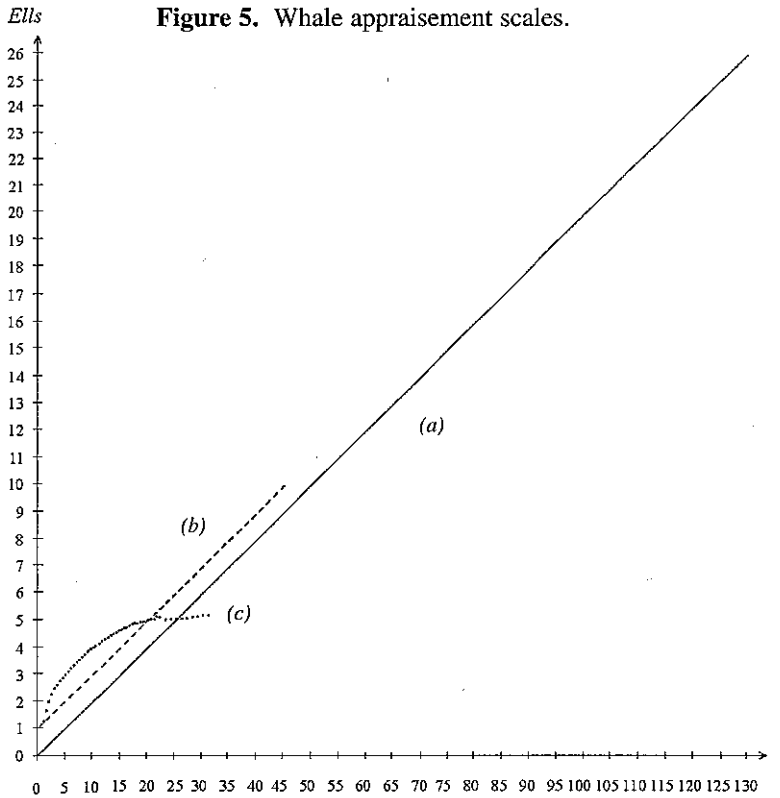


Figure 5. Whale appraisement scales.

(a) Reconstructed old Norse appraisement scale.

(b) Old Faeroese (old Norwegian) scale, prior to 1807/1832.
(Cf Bjørk 3, 1963: 239).

(c) Average calibration af 3 historical and 37 currently used Faeroses assessment rods, since 1832.
(Cf Bloch and Zachariasen 1989. Appendix 1. Converted to ells of 62.8 cm).

calibrated measure in the form of the so-called appraisement rod. It involved a volumetric adjustment of the *skinn* making each unit approximately equal in quantity regardless of the size (length) of the (pilot and bottlenose) whales to which it was usually applied (cf figure 5, scale c).

It is generally considered that the Faeroese value (currency), land and whale appraisement unit *gyllin* (= 4 x 5 *skinn* = 20 *skinn*) originates in a late mediaeval introduction into the Faeroe Islands of the Continental 'gulden' unit of value. However, an analysis of known currency parities and ratios shows, in my opinion, that the unit as such already existed in West Norway, Shetland and the Faeroe Islands in the 11th century AD, then worth 1/2 mark burnt silver.[1] On this basis it is hypothesised (a) that the *gyllin* represents an old Norse denomination called **gildingr*; (b) that the unit became a denomination of land measurement; and (c) that it also represents an old Norse legal entity called **gildingshvalr*/**gildingsfiskr*[2] (**gildingr* for short), being the biggest whale (*ie*, 1/2 mark burnt silver worth) that a free person of subodal rank could rightly appropriate under Norwegian odal right, which was statutory in the Faeroe Islands as part of the Gulathing law district.[3] In fact, the details of this last aspect conform to the old Faeroese whale appraisement scale (b) in figure 5.

Until the late 18th century the Icelanders referred to the size of cetaceans according to the old Norse appraisement scale.[4] However, from late commonwealth times they were under the legal obligation to appraise whales in the legal tender of 'ell wadmal' (*alin vaðmáls*).[5] This appraisement clearly reflected the whale's overall volume and quality (which the 'whale ell' sums did not) and permitted an easy proportional division, especially when the value mattered more than the products as such. It is therefore submitted that the wadmal appraisal is secondary and followed upon the introduction, in 1096 or 1097 AD, of the tithe in Iceland.

1 *Ie*, 107.16 g pure silver.
2 A similar word exists in modern Faeroese.
3 Cf figure 1.
4 Cf Lindquist 1994 ms: 267, 866-868.
5 Cf GG 2: 522; GG 3: 394; JB vii 64.

5 'Njörðr's gift' and God's send;[1] 'fish driver'[2]

Into the high Middle Ages the Norse accumulated a comprehensive body of true knowledge about most Northeast Atlantic cetacean species while other traditions formed about real and imagined whales and other marine beings. Both these aspects tell us about the ideas people had concerning the order in, and ecology of, the sea. In the mid 13th century AD much of this was codified in some sections of the Norwegian work *Konungsskuggsjá* (*Speculum Regale, Royal Mirror*) which remained authoritative on the subject well into modern times.

It is likely that Norse peasant fishermen, perhaps from the Roman Iron Age (ca 1-400 AD) onwards, considered cetaceans to be in the domain of the god Njörðr.[3] Until 1887, the peasants in Skogsvåg, Sotra island, West Norway, raised the tails of minke whales in a small sanctuary on a hill above the whaling voe (*kvalvåg*) where they caught them. This tradition presumably stemmed from sacrifices for 'Njörðr's gift' (**gjöf Njarðar*).[4] It also suggests that a unified notion of godsent marine produce, namely cetaceans, ('other') fishes, whale carcases and ('other') wreck, had formed within Norse polytheism in late prehistoric times and that **gjöf Njarðar* smoothly translated into the corresponding Christian *guðs gjöf* ('God's gift')[5] in its mediaeval providential form. Presumably 'Njörðr's gift' was perceived in a more concrete way than was later 'God's gift' because the (universal, monotheistic)

1 Cf Lindquist 1994 ms: chs 5-6 (pp 102-228); ch 8 (pp 297-308).

2 Cf Lindquist 1994 ms: ch 6.2.K13 (pp 188-199).

3 According to *Gylfagynning* (ch 23) of the *Prose Edda* by Snorri Sturluson, 'he [Njörðr] controls the motion of the wind and stills sea and fire; he shall be invoked for seafaring and catching ["ahann skal heita til sæfara ok til veiþa"]. He is so wealthy and prosperous that he can give them [*ie*, those who invoke him] abundance of land and movables; [- - -] but Njörðr wants to be near the sea [...] in Nóatún.' (Cf Jónsson 1931: 30). Furthermore Njörðr was invoked 'for [prosperous] year and peace' ("til árs ok friðar"; cf *Hákonar saga góða*, ch 14; see Aðalbjarnarson 1979/ÍF 26: 168).

4 Cf the Icelandic proverbial expression "Gáll (galli) er á gjöf Njarðar" ('There is a defect in Njörður's gift') which is known from the second half of the 17th century. Its origin is uncertain but H. Halldórsson (1980: 57) thinks it could be ancient, possibly deriving from a lost myth.

5 In English usually termed *God's send, godsend.*

God of the Christian faith appears to be a more abstract notion than Njörðr would have been in Norse polytheism. The increased abstraction in the course of transition to the mediaeval 'God's gift' may have been accompanied by a kind of 'secularisation' of, *inter alia*, whaling which later unfolded in the Protestant capitalistic utilitarianism (in the Weberian sense).

The 'fish driver' (*fiskreki*) notion and, as a variant hereof, the 'herring driver' (*síldreki*) notion can be followed from the 11th-13th centuries AD but, keeping in mind **gjöf Njarðar*, we may assume that it is at least of late prehistoric origin.

The 'fish driver' issue is very complex and it is crucial to differentiate between the 'fish driver' notion as such; *fiskreki*, *síldreki* (etc) as permitted proper, so-called noa, names, at the generic and species levels; and *fiskreki*, *síldreki* (etc) as general designations, partly as 'circumstantial names' (applicable to various species). The sources mostly imply the fin and minke whales as driving fish inshore but orcas, dolphins and even the harbour porpoise are also mentioned. Herring, capelin, cod and saithe are the species variously mentioned as being driven.

The earliest, albeit indirect, reference to the 'fish driver' is found in the Older Gulathing Law (GTL 149), from about 1100 AD: It permitted the hunting/catching of whales wherever possible, however, 'If a man shoots at a whale in a fish/plankton shoal [*áta*] and any God's gift, then he is liable to a fine of forty marks', – which was the highest fine possible for felony.

The *Royal Mirror* (1240-1263 AD) tells us:

> 'Then a further kind of whale is called *fiskreki* and it offers men nearly the most use, for it drives both herring and all other kinds of fishes towards the land from the ocean outside, but it has nevertheless a rather strange nature because it may need men and ships and drives to them herring and all kinds of fishes just as if it was appointed or sent for this purpose by God and that this was its office by duty as long as the fishermen pursue their catching in a quiet manner. But if they quarrel and fight so that blood is spilt then it is as if this whale knows it and moves then between the land and the fishes and chases them all away from them and out into the sea, just as it had driven them towards them. But this whale is no more than 30

> ells in size and is well edible for men if it was allowed to hunt it, but men are not permitted to catch it or harm seriously, since it is usually of great use to men.'[1]

Magnús *lagabœtir's* National Code (MLL vii 64), from 1274 AD, states that

> 'A man may hunt whales [*hual*] wherever he can except *silldreki* [variants: *hval; fiskreka*] at the herring fishery. And if a man shoots a *silldreki* at the herring fishery or other such God's gift, he is liable for 8 *ertogar* and 13 marks of silver to the king.'[2]

In my opinion the *Royal Mirror* reflects an ancient popular tradition which afforded general inviolability to the 'fish driver'. On the other hand, GTL only prohibited the shooting of whales in fish/plankton shoals while MLL apparently limited the protection to the situation where fishing proper for shoal fish took place, in addition to reducing the fine for infraction to exactly one third of what GTL stipulated.

As recently as 1767, K. Leem mentioned that in Finnmark the very big *storhval* drove cod and other fish inshore 'according to God's wise economy and fatherly care'. J. Grieg (1889) wrote that in Finnmark the fin whale was called 'capelin whale' (*loddehval*) because of its association with the spawning spring capelin. He did not elaborate on the context but the name could have been seasonal/circumstantial.

After about 1870, the 'fish driver' notion was part of the controversy between the north Norwegian fishermen, the Modern whalers and the authorities that led to the whaling ban in northern Norway in 1905, a controversy which extended to Shetland and Iceland.

From surveying the 'fish driver' tradition I am left with the impression that the coastal population in Norway into very recent times nourished a notion of general inviolability of the 'fish driver' which in scope went well beyond the provisions of MLL, the Norwegian Lawbook of Christian 4 (NLB; 1604) and the Norwegian Law of Christian 5 (NL; 1687).

---

1 Cf Holm-Olsen 1983: 15.

2 Prolongated unchanged by NLB vi 61 (1604) and (with a reduced fine) by NL 5-12-5 (1687).

Mediaeval Icelandic laws contain no provisions about the protection of the 'fish driver'/'herring driver' but its inviolability was respected according to common law for another reason we shall return to below. In 1640-1644, Jón Guðmundsson *lærði* wrote that the old Norwegians and the Faeroes thought that the 'herring driver'/'fish driver' chased herring and all other kinds of fish to the fishermen as long as they made no strife, otherwise it chased the fish away into the ocean again. Details in his description fit the fin whale. Although both *síldreki* and *fiskreki* seem to have been current names in Iceland from the high Middle Ages onwards the 'fish driver' notion was apparently weak there until the late 19th century. The reason could be that the Icelanders earlier only carried out sporadic and limited beach seining for herring. The Norwegians conducted herring fishing in Iceland, 1868-ca 1890, and the Icelanders did so as from 1881. The Norwegians also began Modern whaling in Iceland 1883. This is clearly the background for the enactment of the Icelandic law number 6, from 19 February 1886, which, *inter alia*, protected baleen whales in Icelandic inshore waters from 1 May through October.

According to the Icelandic bishop Oddur Einarsson (1588/89) God placed a unique kind of whale, the *fiskreki*, in the sea to counterbalance the incredible monsters and savage enemies of the seamen. The *fiskreki* defends the fishermen against all assaults by malignant whales[1] which usually fear it and flee. It also gathers great quantities of useful fish from the deep of the sea so people may catch them. It performs this service as if it was decreed by God and in such a wonderful manner that if discord or fighting occurs between the fishermen the *fiskreki* chases the fish away, so they may neither be caught in nets nor by line and hook. As it is considered more useful to man alive than dead, Icelanders abstain from taking it except when it drifts dead ashore.

In other words, in Iceland the *fiskreki* was considered to be the protector of fishermen at sea as well as being the 'fish driver' proper. The 'fish driver' notion had, thus, been combined with that of *góðhveli, ie,* 'good

1 Notably the *hrosshvalur, nauthvalur, rauðkembingur, skeljungur* and *springhvalur.* The whole category is called *illhveli, ie,* 'wicked whale(s)', in Icelandic and *troldhval(er), ie,* 'troll whale(s)', in Dano-Norwegian.

whale(s)'. This cosmological dual role as fish driver and protector of fishermen at sea was possibly also part of the Norwegian tradition although I have not yet noticed it.

According to bishop Gísli Oddsson (1638) the *fiskrekil/síldreki*, here being the fin whale, was 'thought to be the mate of the great *steypireyður*', *ie*, blue whale. Icelandic folklore sustained this notion until the mid 19th century.

It was apparently not before the mid 18th century that scholars began to challenge the 'fish driver' notion and the legal protection of the whales concerned. The earliest criticism I have so far discovered is by E. Jessen who in a work on the Kingdom of Norway, in 1763, dismissed the 'superstition' that whales drive herring inhore.[1] In 1781/82, J.C. Svabo also questioned the inviolability which laws since ancient times offered to the *sildrekji* (*ie*, fin whale) because it allegedly drives the herring inshore. He suspected that the whale pursues the herring, which in turn moves inshore by its own nature in order to spawn. He remarked that herring also occurs in great quantities near shores where this whale was not seen, so people might enjoy the benefit of taking this whale together with at least the same, if not a bigger, herring catch. J. Landt (1800) followed Svabo and doubted that the Faeroese had ever enjoyed the help of the fin whale (*silrekji*). He therefore urged them to become its master and so reap a secure harvest rather than hoping for an uncertain one. H.B. Melchior (1834) mentioned that herring also came to Danish shores without a *sildedriver*. H.E. Høst (1875) remarked that the Faeroese call the fin and minke whales by the generic name of *sildrekji* but doubted that the prohibition by NL 5-12-5 could be applied in the Faeroe Islands (presumably for lack of herring there). Conversely, curate A. Christie (1785/86) of Hordaland, West Norway, observed that 'The big whales which come with the herring could presumably be subject to fishery; but many (people) wish the ban that hinders this lifted first.'[2]

Indications of herring, cod and saithe migrations by birds, cetaceans and stomach contents of preying fishes were in Norway called 'sign' (*syn*,

1 Cf Juel 1889: 170.
2 Cf Christie ca 1840, UBB 221: f34v.

sildesyn). Before technical aids became available the importance to fishermen everywhere of such indications of fish arrivals cannot be overestimated but, in my opinion, the 'fish driver' notion should not be reduced to that aspect. The 'fish driver' notion was embedded in, and formed a vital part of, the ancient Norse and mediaeval cosmic orders and world views.

6 Norse mediaeval to early modern peasant fisherman whaling

6.1 Whale drives and trapping[1]

In catch-technical terms 'induced ebb stranding/trapping', 'driving' and 'trapping proper' may be considered to form one main category of whaling. To various degrees and in various combinations it makes use of natural features like topography (*eg*, sloping beaches, reefs, inlets, lagoons) and (falling) tides; the *manngard*;[2] movable enclosing gear (*eg*, boats, nets, seines, ropes, beams, lattices) and/or permanent constructions (*eg*, anchored lattices, weirs, stockades, dams). It is recorded or can be inferred that such whaling methods have been used at various places in Western Europe, in the Northeast Atlantic area and Norse Greenland. As one would expect, the variety and number of cases are greatest in Norway. Species thus caught were mostly porpoises, dolphins, orcas, pilot and minke whales, but bottlenose, fin, black right, bowhead and Atlantic gray whales were also taken in this way.

Natural (ebb-) trapping/induced ebb-stranding, occasionally in a kind of symbiosis with orcas, is found, *inter alia*:

in Norway, with the Coast Samis of Meskfjord/Varangerfjord where large baleen whales were ebb-trapped behind reefs and attacked by orcas

1 Cf Lindquist 1994 ms: ch 9 (pp 309-377).

2 *Ie*, a barrier or fence formed of people, often more or less unarmed (cf Old English, Old Norse, Icelandic and New Norwegian).

(recorded in the late 17th-early 19th centuries);[1] at the farm Sund, Flakstad municipality, Lofoten, where large rorquals (presumably fin rather than minke whales) were naturally trapped in a narrow inlet (18th century to 1810);[2] in Værøy, Lofoten, where dolphins were enclosed in a shallow bay by falling tide (early 19th century);[3]

in Iceland, in Steingrímsfjörður, Strandasýsla, where large rorquals were ebb-trapped behind reefs and attacked by orcas and chased ashore (late 18th century);[4] furthermore, sporadic takes in lagoons (*eg*, Skógtjörn, Álftanesshreppur, Gullbringusýsla; 1538)[5] and shallow harbours (*eg*, Hafnarfjörður, Gullbringusýsla; 1772).[6]

in Norse Greenland, prior to 1350 AD, in Hvalshylr ('Whale Hollow'), in Berufjörður, somewhere in the commons of the Eastern Settlement, where large whales were ebb-trapped behind a reef.[7]

Drive beaching hunts have been conducted regularly in the Faeroe Islands (recorded since the 16th century; pilot whales, with some orcas and dolphins);[8] also in Shetland and to a lesser degree in Orkney, the Hebrides and Ireland (17th-19th centuries; pilot whales).

In Iceland sporadic drive beachings of pilot whales, orcas and dolphins are recorded in annals and similar sources between 1583 and 1797 as follows: Of 14 takes, 5 or 6 were in Gullbringusýsla, 1 in Kjóssasýsla, 4 or 5 in Snæfellsnessýsla, 1 in Austur-Barðastrandarsýsla and 2 in Norður-Ísafjarðarsýsla. In other words, these drives took place around the Reykjanes and Snæfellsnes peninsulas, at the islands in Breiðafjörður, and in Ísafjarðardjúp and adjacent fiords.[9]

1 Cf Anon 1938: 34; Knag 1938: 23; Fellman 1, 1906: 55; Lilienskiold 1, 1942: 206.
2 Cf Boie 1822: 169f.
3 Cf Heltzen 1981: 89.
4 Cf Olavius 1780: 165, 176; see also Olavius 1, 1964: 249; Stephensen 1799-1806: 419.
5 Cf Jóhannesson 1940: 60.
6 Cf von Troil 1808: 662f.
7 Cf Jónsson 1930: 19f, 71; see also Anon 1845: 252f; Halldórsson 1978: 133f.
8 Cf Lindquist 1994 ms: ch 9.5 (pp 330-333); A.16.7 (pp 677-681).
9 Cf Lindquist 1994 ms: A.17.2 (pp 772-855).

Drive seining hunts are, *inter alia*, recorded as follows:

In Springervik/Skarbøvik, Ålesund municipality, Møre and Romsdal, Norway (recorded in the mid 18th century): drives of dolphins and orcas and seining of them with a specially made net.

In West Norway, mainly Hordaland (18th-early 20th century): drives of orcas and dolphins and catching of them with herring seines.

In Vestmanna, Streymoy, Faeroe Islands: drives of pilot whales using a rope with bundles of straw and stones attached (1841) and variously one or two specially made nets for seining the whales (1842-late 19th century).

Scholars have hitherto treated the old Norse terms and proper names *hvalvágr* and *hvalvík* (including their Norwegian derivants)[1] as being more or less identical and signifying places of whale beachings and enclosures.[2] An analysis of the provisions of GTL 150; MLL vii 64; NLB vi 61; and NL 5-12-11 shows that it is possible to differentiate between them. A *hvalvágr* (GTL; MLL)/*hualgaard* (NLB; NL) was private property in which the proprietor always owned the full catch. Under GTL (ca 1100 AD) the driving of a whale into another man's whaling voe entailed the trespass fine which MLL (1274 AD) modified to the drivers receiving compensation for their work but the owner still taking the full catch. Conversely, in the *eigi hvalvágr*[3] (GTL; MLL)/*vig* (NLB; NL) the whale drivers and the shore estate divided the catch equally. The striking difference can only be explained by the whaling voe having specially prepared catching and trapping arrangements and the 'not whale voe' not having so. It is therefore submitted, firstly, that the *eigi hvalvágr* may also have been called **hvalvík* (ON; *ie*, 'whale creek'), especially where it was particular suitable for beaching smaller cetaceans; and, secondly, that the integrated whole of inlet, catching and trapping arrangement initially was termed *hvalvágr* with reference to the topographical setting; that since the 15th-16th century the *hvalvágr* came to

1 The Old Norse and Dano-Norwegian legal and technical terms *hvalvágr, hvalvík, hvalgård (hvalgaard; hualgaard)* are rendered 'whaling voe' ('whale voe'), 'whaling creek' ('whale creek') and whaling garth ('whale garth'), respectively, while (modern) Faeroese *hvalvág(ur)* is rendered 'whaling bay'.

2 Cf Lindquist 1994 ms: A.16.8 (pp 682-686).

3 *Ie*, 'not whale voe'.

be called *hvalgaard* (D/N; 'whale garth') from the constructions/arrangements made there (**hvalgarðr*; ON),[1] in order to clearly distinguish it as a legal entity from the general appellative and place names of the *hvalvágr* type.

There exists some evidence about such **whale traps,** *viz*:

Kvalvåg, off Skogsvåg on Sotra, Hordaland, West Norway,[2] belonged to several adjacent farms. It is first mentioned in 1338 AD and is particularly well documented from the late 18th through the 19th century. Minke whales entered Kvalvåg/Skogsvåg through a sound which, in the 18th-19th centuries, was closed with a bast net (28 fathoms wide, 12 fathoms deep) and guard boats. Another, smaller, sound was then too shallow for whales to exit through but it must earlier have been blocked by a lattice because the whale division about 1785 still contained a 'lattice share' for that purpose. Until 1897-1898, the whales were shot with crossbow arrows and after becoming sick they were attacked, killed and landed.[3] Several minke whales were usually taken each year.

Telavåg, Sotra, Hordaland,[4] is first mentioned in 1535, as pertinent to 16 local farms. At its mouth there are also two sounds, a wider and a narrower one. In 1535, Vincent Lunge, as the owner of many of the adjacent estates, was obliged to supply bast for a net, 'sticks' (*ie*, timber) and hawsers towards the maintenance of the whaling voe. This indicates that the main sound (30 fathoms wide, 9 fathoms deep) was then being closed with a bast net and that a lattice was applied in the other sound. It is manifest that about 1785 the western sound, being about 20 fathoms (ca 28.4-37.7 m) wide and 7 fathoms (ca 10-13.2 m) deep, was permanently closed by means of a lattice made from long pine spires. It was kept in an upright position like a net by stones tied to the lower end of, presumably, the vertical laths. The movements of the sea broke and spoiled the lattice so it hardly lasted for a full year.[5] It is explicitly stated that it was the lattice in the western Stikholm sound which made Telavåg a whaling voe: without it whales would hardly

1 Cf *dýr(a)garðr; spjótgarðr.*

2 Cf Lindquist 1994 ms: ch 9.6.1 (pp 333-338).

3 In the 18th-19th centuries, the shooters from Skogsvåg were also employed in the shooting of minke whales in the neighbouring Telavåg whaling voe and at various other places in Hordaland which then used herring seines for enclosing the minke whales.

4 Cf Lindquist 1994 ms: ch 9.6.2 (pp 338-342).

5 Cf Christie 1785/86a, UBB 56: f40v-f41r.

have be caught there. Apparently sometime around the middle of the 18th century the peasants in Telavåg tried to create a garth (dam) across that sound by filling it up with stones but it was too big an enterprise for them and was abandoned.[1]

Other accounts also mention whaling voes 'in the vicinity of Bergen' and, *inter alia*, that their entrances were 'closed with large nets, wooden lattices, etc,' ("[...] fermé l'entrée par de grands filets, des grilles de bois, &c.").[2]

The evidence from the Skogsvåg and Telavåg whaling voes is crucial, on the one hand, for understanding the character of whaling voes and, on the other, as reference when interpreting less well documented whaling voes, *viz*:

Staumøy whaling voe, Frøya municipality, South Trøndelag: Between 1428 and 1435 archbishop Aslak Bolt restored it to good working order and in 1435 granted the bishopric share of the whale tithe from it to the community of canons in Niðarós (Trondheim).

Vikna whaling voes, Vikna municipality, North Trøndelag: According to Aslak Bolt's land register (from 1432-1449) the archbishopric of Niðarós at that time owned the farm Kvalfjord in Vikna and the see had recently secured for itself whaling voes (pl!) for which it had given in exchange a farm called Uxabúðir. The whaling voes were presumably in the vicinity of Kvalfjord and put under the administration of the tenant there as they are mentioned under that farm entry.

Other localities in Mid Hordaland are possibly also old whaling voes.[3]

Stone whaling garths (dams): Two whaling garths proper are recorded in northern and southern Bildøy, Hordaland, respectively. Into the 1880s they used constructed stone dams for ebb-trapping of smaller cetaceans up to and including minke whales.[4] Whether an unidentified stone whaling garth mentioned by A. Christie (1785/ 86a, UBB 56: f47v) is either of these cannot be said.

1 Cf Christie 1785/86a, UBB 56: f41r.

2 Cf Ascanius 1775: 5.

3 For example, Spildapollen (Østfjordspollen), southern Sotra; Kvalios, Øygarden municipality; and Kvaleim, Manger, Radøy municipality.

4 Cf Brunchorst 1889: 160.

Hvalvogur and *hvalvík* (including variants) do not occur in the comprehensive mediaeval Icelandic whaling provisions nor in Old Icelandic as such. Moreover, **Hval(a)vogur* seems entirely absent from the otherwise great variety of Icelandic *Hval-* place and farm names while only one farm (recorded 1367-1733) and a fishing station (1710) appear to have been called *Hvalvík*. It is tempting to explain this by the technical and legal character these terms initially had in Norway. On the other hand, from about 1285 AD to 1708, a farm *Hualgarð(u)r* (Vindhælishreppur, Austur-Húnavatnssýsla) is recorded. The sources indicate no special whaling arrangements at the farm but a lagoon and skerries are located in front of it. The farm name strongly indicates that in the early and high Middle Ages cetaceans had regularly been caught there by means of some improvements or constructions, presumably in the form of a Bildøy kind of stone whaling garth.

A document from about 1490 mentions a farm *Quhailegarth* (later spelled *Qualsgarth*) in Unst, Shetland, but similar farm or place names are otherwise unknown in Shetland and Orkney.[1]

Whaling voes and whaling creeks will also have existed at places which were not given names of the *Hvalvágr* and *Hvalvík* types but they are difficult to trace. In Norway there now exist at least 17 localities with *Kvalvåg* and 72 localities with *Kvalvik* type names (cf figures 6 and 7).[2] Among the 17 *Hvalvágr* localities are at least 12 farms, generally with a recorded name history since the late Middle Ages.[3]

Land rise in West Norway is minimal. This has permitted whaling voes/garths to exist at the same locality for perhaps up to 2000 years, for example, into the 18th-19th century, without being seriously affected. On the other hand, land rise has been considerable on the coast northwards from northern West Norway which must have required regular relocation of whal-

1 Cf Anon 1839: 522; Clouston 1914: 423. The author is indebted to Mr B. Smith (1996, pers comm) for this information.

2 Cf Lindquist 1994 ms: ch 9.7.3 (pp 356-364); A.17.5 (p 888); A.17.6 (pp 889-893).

3 Cf Lindquist 1994 ms: ch 9.7.2 (pp 352-356); A.17.4 (pp 883-887).

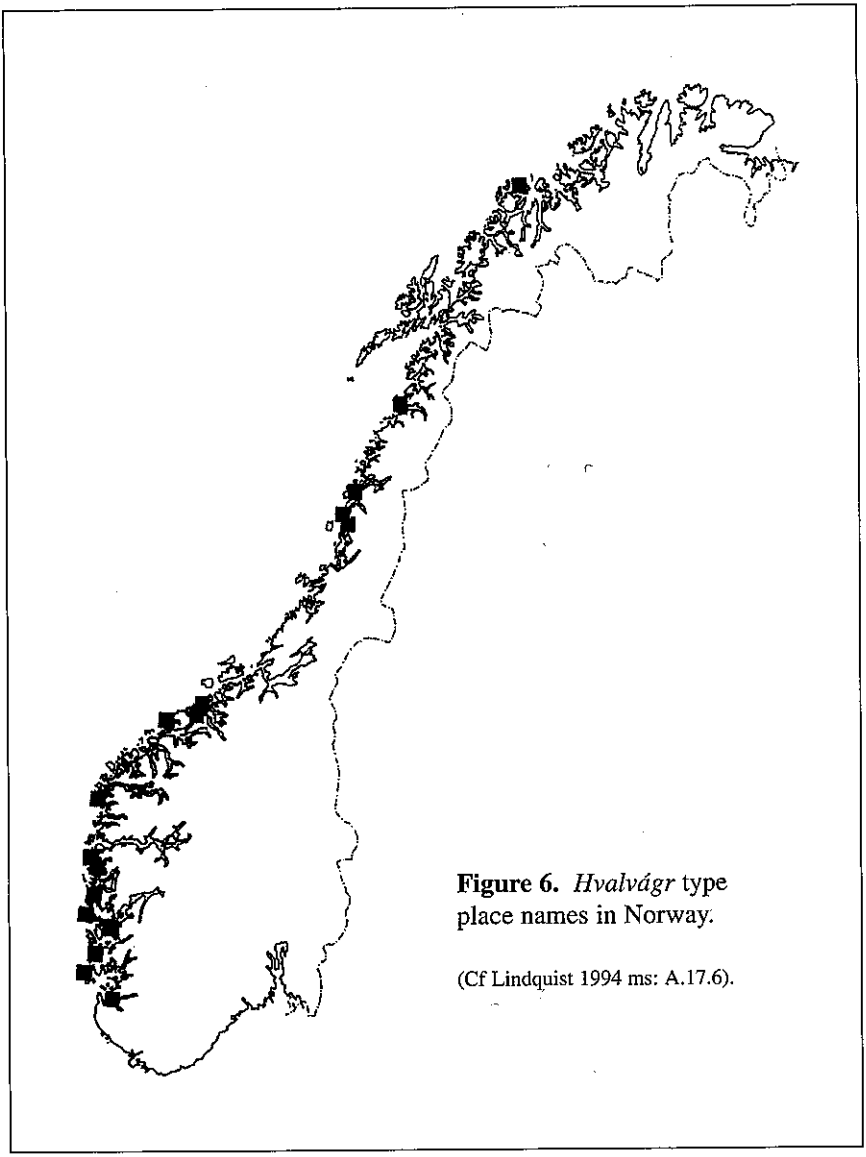


Figure 6. *Hvalvágr* type place names in Norway.

(Cf Lindquist 1994 ms: A.17.6).

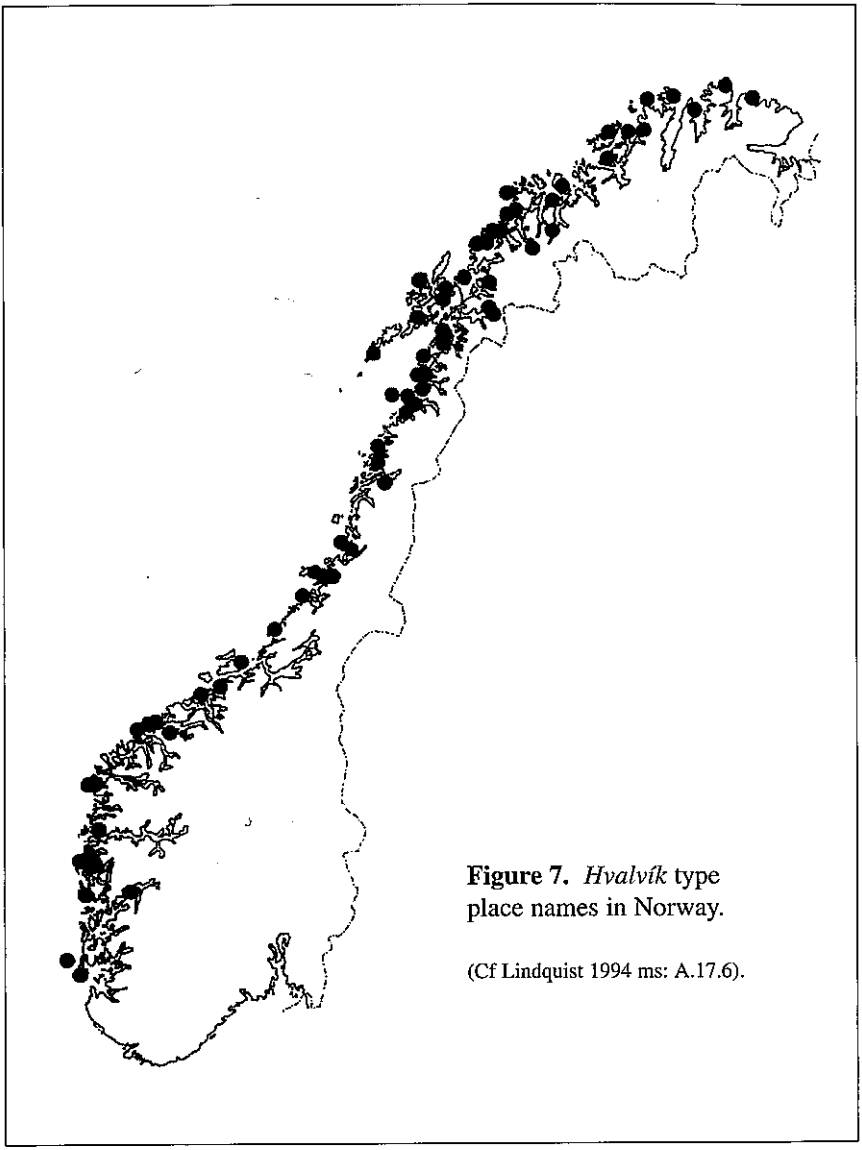


Figure 7. *Hvalvík* type place names in Norway.

(Cf Lindquist 1994 ms: A.17.6).

ing voes on that part of the coast. When whaling voes outside Hordaland disappeared in the late Middle Ages the reasons were probably a combination of the relatively high costs of their (general) maintenance and relocation, scarcity of labour and higher returns from other activities, caused by, *inter alia*, the Black Death (1350 AD) and the increased emphasis on commercial fishing (as from the 13th century). Presumably the whaling voes/garths gradually lost functional elements, some of which could at first be mitigated (*eg*, by changing from lattice to bast net and then to herring seine, and by using trained shooters from outside instead of local ones) while others could not.

Traditional Scandinavian fishgarths are weirs which in Denmark have a 7000 year history. Recent research shows that they in late Mesolithic and Neolithic times were the predominant means of fishing and of far greater importance to the coastal communities than previously thought[1] the implications of which we have already touched upon in chapter 3. In the ancient porpoise drive hunt in Gamborg Fjord off the Little Belt in Denmark people in the 18th-19th century used a large semi-permanent net (*radgarn*) for trapping the porpoises and a seine (*vådgarn*) for securing them.[2] The whole arrangement suggests to me that the nets were successors of a porpoise wattle-work garth. Faunal remains at Ronæs Skov indicate that porpoises were caught in this fiord already in late Mesolithic (Ertebølle) times, ca 5,000-4,000 BC,[3] so it would be appropriate to search the fiord for traces of a porpoise garth.

Evidence indicates that Danish late Mesolithic fishgarths were "smaller and more lightly constructed than the Neolithic ones".[4] In my opinion, this trend towards increased size and strength continued to late prehistoric times, giving rise to a technical continuum ranging from (light) fishgarths, over (somewhat stronger) porpoise/dolphin garths to other (more massive) whale garths, with weirs/stockades, lattices and/or special nets. Norwegian whal-

1 Cf Andersen 1995: 41, 47, 54-57; Enghoff 1995: 72f; Pedersen 1995.
2 Cf J.E. 1782: 80f; Petersen 1969: 71.
3 Cf Andersen 1995: 53.
4 Cf Pedersen 1995: 85.

ing voes/garths must be considered part of this organic development. From the beginning these traps must have required a socio-economic organisation that could enlist a considerable work force for their construction, maintenance and use, and defray the costs.[1]

The big Norwegian whaling voes/garths clearly involved large-scale carpentry that would hardly have been possible without the use of iron axes. It is therefore unlikely that such whaling voes/garths were erected before the Roman Iron Age (ca 1-400 AD). Socio-economic and settlement history in Norway also favours the hypothesis that from the Roman Iron Age onwards older and smaller whaling voes/garths were improved and enlarged, and many new and bigger ones were established, by combined efforts of several farms as communal[2] enterprises, on the one hand, and by wealthy and powerful peasants (chieftains) as their individual private property, on the other. Presumably, in this process farms closely associated with whaling voes/garths acquired their *Hvalvágr* names and legal provisions such as GTL 150 became firmly established as common and partly statutory law.

6.2 Whaling with piercing weapons

6.2.1 Definitions[3]

It is essential to define unmistakably, according to functional principles, what is meant by spear, lance, harpoon and gaff, namely:

The **spear** is a pointed staff intended for being hurled by hand; it may have a head joined to the shaft, either fixed to remain in position or designed to detach ('detachable') or break off after piercing ('semi-detachable'). The spear is essentially a wounding instrument but may, of course, also be applied as a killing instrument.

The **lance** is a killing instrument, having a longer cutting edge and

1 L. Pedersen (1995: 83, 85) considers this to be the case with the Danish Mesolithic and Neolithic fishgarths.

2 *Ie*, common private property.

3 Cf Arlov 1993: 24-26, 29f 40; Lindquist 1993; 1994 ms: ch 10.2.1 (pp 379-381); chs 10.2.2 and 10.3 (pp 381-393).

stronger shaft than the spear. A lance may also be thrown and then serves as a spear.

The **harpoon** consists of three main components which are the shaft, the head and the line: The shaft may be either that of an arrow, the staff of a hand-thrown harpoon or the double shaft of a harpoon slipped into the barrel of a harpoon gun. The head is intended for penetrating into, and fasting a line to, the body of the animal and may be single-barbed, multi-barbed or a toggle, fixed to, or detachable from, the shaft. The line is an integral part of the harpoon for the purpose of keeping contact with, impeding and retrieving the quarry. The hunter's contact with the prey by way of the line may either be, for some time, indirectly through a free drogue attached to the line, or directly and permanently, whereby the hunter's platform (boat) may also serve as an impediment (tow whaling). Ultimately, the line in the hands of the hunter allows him to approach and retrieve the quarry for subsequent killing and securing.

A spear, lance and arrow may occasionally carry a light line for the recovery of the device itself; such a line is an auxiliary to the implement concerned and does not make it a harpoon.

A **gaff** is a large, usually barbed, iron hook that is hewn into the animal and to which a strong line is fastened for keeping contact with the prey and securing it. The gaff, of which the line is also an integral part, distinguishes itself from the harpoon by being hand-held, rather than hurled, when being fastened to the prey.

The line which is crucial for distinguishing between the spear and the harpoon does not in itself allow for a distinction between the harpoon and the gaff.

6.2.2 Hand harpoon whaling

During the early Middle Ages the Basques developed their unique hand harpoon tow whaling technique for the taking of black right whales. In the late 14th century and 15th century they presumably whaled in the English Channel and Irish waters whence their expeditions were extended north and northwestwards. In the second half of the 16th century they whaled regularly in eastern Canadian waters. There they probably in the 15th century, at

the northern end of the range of the (temperate) black right whale, transferred the technique to the taking of the other right whale species, the (subpolar) bowhead whale.[1] The black right and bowhead whales are both relatively slow swimmers and have thicker blubber compared with the much swifter and stronger large rorquals; they were therefore easier to catch and recover because they would usually float when dead; moreover, they offered far more blubber (oil) and longer baleen. Basque vessels are first documented whaling inshore in Icelandic waters in the year 1608.[2] Basques were employed on English and Dutch vessels whaling off northern Norway as from the 1590s but Basque vessels are not known to have been active there before perhaps in 1612.[3] The Basque whaling technique for right whales was slowly brought into England after about 1575, and the Netherlands and Denmark-Norway after ca 1615. Primary accounts from 1611-1820 demonstrate beyond doubt that knowledge of catching larger whales by hand harpoon did not exist in northwestern Europe about 1600 AD; moreover, that for one to two generations the emerging Old whaling trade of England and the Netherlands depended entirely on hired Basque harpooners and line managers and partly on imports of harpoons and foregangers from the Basque provinces. In the case of Denmark-Norway the dependence on foreign harpooners, line managers, etc, and foreign equipment lasted at least throughout the 17th century. The catching of large rorquals by hand harpoon was considered impracticable and rarely attempted: for that reason S. Foyn devised the Modern whaling technique between 1864 and 1870.[4]

1 Cf Aguilar 1981: 457; 1986: 192, 195f; Proulx 1993: 15f, 19, 21. Thomas Edge (1906: 30), who had an intimate knowledge of 16th-early 17th century Basque whaling, wrote in 1622 that the bowhead has "beene first killed" in the Grand Bay, *ie*, the Gulf of St Lawrence.

2 Cf Lindquist 1994 ms: 121, 429, 785. It is a widespread misunderstanding (*inter alia*, by A. Aguilar 1986: 192, 196; and J.-P. Proulx 1993: 14) that the Basques commenced whaling around Iceland in 1412; actually, it were the English who about this time began fishing (for cod) there (cf Lindquist 1994 ms: 121). See also chapter 7, below.

3 Cf Conway 1906: 41f; Jørgensen 1994: 36f.

4 G. Jackson (1978: 5), referring to T.S. Willan, *The early history of the Russia Company, 1553-1603* (1956, *passim* [not seen]), writes that "In 1577, having secured the services of Basque whalermen, the Muscovy Company [...] appears at first to have been interested only in the fin whales around Iceland." T.B. Aslov (1993: 200) expounded this as "Det ser ut til at fangsten stort sett foregikk ved Island, og at byttet var finnhval" ('It looks like the catching generally took place around Iceland, and that the prey was fin whales.'). This alleged whaling, which must have been inshore in Iceland, seems not supported by Icelandic sources and needs corroboration. That the

The Basque whaling technique involved two indispensable aspects, namely: (a) the cooperation of at least 3-4 shallops in the capture (*ie*, harpooning and lancing) of the right whale; and (b) that the hurling of the harpoon was facilitated by a foreganger (forerunner), 6-12 m long, of particular fine, light, strong and untarred cord, spliced to the harpoon head. The foreganger was followed by the warp of tarred rope, ca 16 mm in diameter. Each shallop carried two such warps (each 150-200 m long) but they could be extended with lines from other boats when necessary.

6.2.3 Spear whaling[1]

Scholars have hitherto considered the catching of larger cetaceans during the Viking and Middle Ages by the Norse in terms of hand harpooning and the whale pulling the boat until it could be lanced (*ie*, hand harpoon tow whaling). This paradigmatic notion seems 1884-1911 adopted from the Basque and Spitsbergen/Greenland whaling trades but in my opinion it is unsupported by the historical evidence.

The mediaeval Norwegian and Icelandic laws use a differentiated lexicon for the sealing weapon ('harpoon' proper, *skutill/skutull*), on the one hand, and the whaling weapon ('shot', *skot*; 'iron', *járn;* and even 'spear', *spjót*), on the other. Etymologically, both *skutill* (etc) and *skot* imply a missile but *skutill* has an additional connotation that indicates it having a (small) detachable head. From modern times we know that the same smaller harpoons were used for taking seals as well as porpoises and (small) dolphins. This undifferentiated weapon and use presumably represents an ancient tradition for which reason *skutill* (etc) in Old Norse and Old Icelandic should accordingly be rendered 'seal/porpoise/dolphin harpoon'.[2]

Company was 'interested' in, or caught, fin whales (be it the species *Balaenoptera physalus* or the genus Balaenoptera) seems highly unlikely. By interpreting the sources it was probably overlooked that at this time both the baleen and the (dorsal) fin were called 'fin' (cf *finne* = fin [Edge 1906: 31]; *fin(ne)s* = baleen [Edge 1906: 30f; Purchas 1906a: 31f]. Therefore, I suspect that the Muscovy Company was actually interested in 'baleen whales', as merchant whalers understood the term, in effect referring to the right whales or possibly only the black right whale.

1 Cf Lindquist 1994 ms: ch 10.3 (pp 384-393); ch 11 (pp 449-460); ch 12 (pp 461-489).

2 Cf Lindquist 1994 ms: ch 10.5.-10.6 (pp 399-426).

The Icelandic whaling terminology was consistent until the Icelanders in the 17th century also had to deal with Basque and Old whaling harpoons proper. The ensuing lexical confusion spilled over into Dano-Norwegian (from where it also came back into Icelandic) and has troubled scientific discourse ever since.[1]

There exist numerous accounts of Norwegian/Samish and Icelandic whaling which show it to be spearing and as such relying on recovery of the carcasses through driftage:[2] Whale spearing continued in Finnmark to 1870 and in Northwest Iceland to 1894 or 1896 (cf figure 8). Finds in deep waters off the Norwegian coast of big slate points suggest whale spearing has been conducted in Norway from Neolithic times (*ie*, after ca 4000 BC).

Mediaeval to early modern Norse sources about whaling never indicate the presence of a warp and when lines first occur in Icelandic sources in the 17th century they are associated with 'foreign' whaling weapons. In fact, suitable (hemp) lines seem not to have been available in Norway and Iceland before the 15th century, at the earliest, making harpoon whaling proper impossible before that.[3] It is also indicative that usually only one boat with few crew members was involved in the old Icelandic and Norwegian whaling operations with piercing weapons. Moreover, the earliest recorded instances of Norse peasant fishermen engaging in harpoon (tow) whaling date from 1610 (Iceland) and 1619 (Faeroe Islands) (cf chapter 7, below).

After about the 7th century AD, whaling spears seem to have been increasingly equipped with iron heads as the (later) appellative *járn* indicates. This may have led to the development of the spear type recorded from Arnarfjörður in Northwest Iceland, *ie*, a ca 3 m long wooden shaft with a loosely fixed, ca 50 cm long, iron head (cf figure 8) which was hurled at the

1 Virtually every whaling weapon came to be called 'harpoon', with the connotation of tow whaling, which Guldberg and Nansen later (1884-1911) made paradigmatic. Although they were sometimes described as 'loose harpoon', 'harpoon without line', etc, the implication of this has hitherto gone unnoticed.

2 Cf Lindquist 1994 ms: ch 10.5.6 (pp 417-420); A.16.10 (pp 691-719).

3 In the order of their approximate strength, traditional Norse ropes were made of walrus hide, ox hide and (lime) bast, and lines, similarly, from skin, horse hair, coarse woollen tread and flax. The sheer bulk (and price) of, *eg*, leather warps would be prohibitive; furthermore, the apparently highly crucial (light and strong) foreganger would be missing, the invention of which I consider to constitute the basis of the Basque success in whaling.

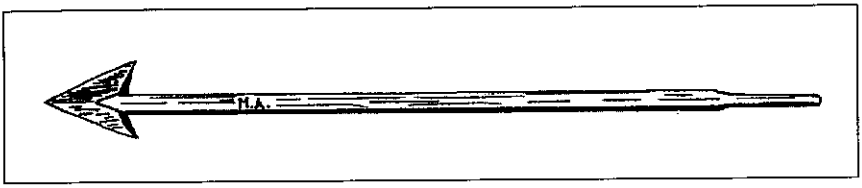


Figure 8. Whaling-spear head, as used by Matthías Ásgeirsson *á Bauluhúsum,* Arnarfjörður, Northwest Iceland, until the mid 1890s. Overall length 45 cm; tang 6 cm long; point 5 cm long and 4 cm wide between the barbs. Kept by Fiskifélag Íslands, Reykjavik. (Sketched from Kristjánsson 5, 1986: 52).

whale from some distance.[1] This type fits very well most descriptions about the use of whaling spears so one must assume that it constitutes the main whaling spear type of the Norse after Viking times. On the other hand, in the 18th-19th century, north Norwegian/Samish peasant fishermen also thrust the iron spear head (being up to 1.5 m long) into large whales using a (5.6-7.5 m) long shaft.[2] The method is akin to lancing although not applied for the immediate killing of the animal. It was presumably called 'whale sticking' and the whaler *hvalstikker*. The whales speared and stuck by the Norse were usually large rorquals or their calves.

In mediaeval and modern Iceland it was a legal requirement to register owner marks on whaling weapons (shots) at the Althing (general assembly) and publicly announce the find in whales of such shots (*ie*, their recovery). In Norway whaling shots were 'witnessed' (MLL vii 64) which must have involved at least the neighbours if not the local or regional thing. After about 1600, shot owner marks seem to have been registered in the local Norwegian court books. Within the Norse hand harpoon tow whaling paradigm the real character of the whaling mark registration and announcement procedure has not been appreciated. Its significance as an elaboration of traditional hunters' property marks only becomes clear in the context of spear (and arrow) whaling.

1 It might be termed the 'Arnarfjörður type' after the place from which it is best documented.
2 This might be called the 'Rognsund type'.

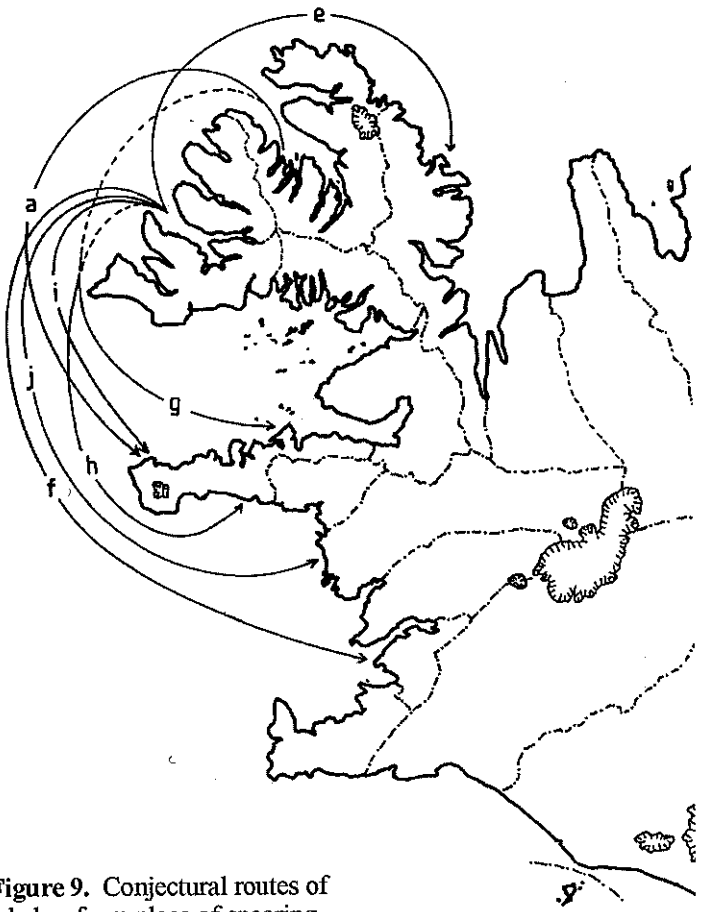


Figure 9. Conjectural routes of whales, from place of spearing to place of recovery, 1657-1725.

(Cf Lindquist 1994 ms: A.17.10(F)).

In 1385 AD a blue whale came ashore in Norse Greenland with a shot mark recognised as belonging to a certain person in Ísafjarðardjúp, Northwest Iceland (cf figure 1). Icelandic sources from about 1650-1800 contain numerous registrations of shot marks and a number of shot mark recoveries within the country itself which can partly be matched through the occurance of the same owner marks. An analysis shows that spear whaling was conducted mostly in northwestern Iceland, centering on the fiord complexes of Arnarfjörður and Ísafjarðardjúp, with some activity in the adjacent fiord complexes of Húnaflói and Breiðafjörður which apparently were less suitable for this kind of whaling. However, whales speared in these fiords were sometimes recovered in faraway districts (cf figure 9). The system of shot mark registration and announcement secured that the shooter received the share of a recovered whale he was entitled to.[1] On the other hand, the extensive 'driftage zone' secured for the shore estate many drifting carcasses of unshot whales, or a big share in them and a share in drifting shot whales, rather than merely in stranded ones.[2]

West Norwegian (voe) whaling with arrows has generally been associated with the premeditated use of some kind of 'poison' or pathogenic bacilli. This explanation has partly been extended to Norse spear whaling in the few cases where it has previously been acknowledged. However, the pathogenesis described in Icelandic spear whaling and also indicated in some Norse sources involving spear whaling is similar to the veterinary evidence obtained from the West Norwegian Skogsvåg arrow whaling in the 1880s. It

1 The 'shooter's share' was half of the whale, less the 'finder's blubber' and the tithe, if it stranded and the shooter attended to the flensing upon notification (within a travel distance of 12 hours); otherwise it was half of the share's value, called 'shooter's money', which the proprietor of the shore estate held in trust for three years, after which it became his.

2 Unshot whales drifting or stranded in the 'net zone' belonged to the shore estate or the foreshore holder, depending on the circumstances, less finder's blubber and tithe. Shot whales drifting or stranded in the 'net zone' were divided equally between the estate/foreshore holder and the shooter (less deductions) while such ones drifting in the 'driftage zone' outside the 'net zone', were divided 1/2:1/2 between the proprietor (only) and the shooter (less deductions). When a shot whale was 'transported' (*ie,* towed) from the commons to the ground of a third party the estate was entitled to 1/3, the salvers 1/3, and the shooter 1/3 (or half of that, according to the circumstances, less deductions); if the whale was unshot the proprietor received 2/3 and the salvers 1/3 of it (less deductions).

may be concluded, firstly, that no poison proper was used in Norse whaling; secondly, that clostridium infection accompanies arrow and spear whaling provided the whale's blubber is penetrated, causing the whale's death within a fortnight but often in less than a week's time; and, thirdly, that this effect constitutes an integral part of the spear and arrow whaling methods.

The rate of struck but lost whales in the Old whaling trade is recorded as having been up to 50 per cent but it must have been far higher in spear whaling, except in cases where the whale was restrained by topography or a *manngard*. In fact, before the hand harpoon tow whaling paradigm took fully hold of Norse whaling history, Norwegian naval captain N. Juel (1892: 14) described whale spearing as 'highly destructive for the whale population but gives only a small and uncertain yield'. Spear whaling was even officially characterised as 'this most wasteful of all hunting methods'[1] and in order to prevent its revival it was implicitly banned under the Norwegian Whaling Act of 1896 (§ 6).

Whale spearing was presumably also used in Norse Greenland and seems to have followed the same rules as in Iceland because the local inhabitants in 1385 AD acknowledged both the Icelandic shot mark and the ensuing ($^1/_2$:$^1/_2$) whale division. However, whale spearing seems not to have been used in the Faeroe, Shetland and Orkney Islands. Experience may have taught the inhabitants that the whales usually swum away from the archipelagoes before they died and that the carcasses were most unlikely to come inshore, let alone ashore.

Information by L. Debes (1963: 167) and J. Landt (1800: 240) indicates that large rorquals speared in northern Norway from about 1673 to 1800 succumbed to their wounds on their southbound autumn migration and that occasionally some were recovered in the Faeroe Islands. The whales seem to have carried spear/lance heads although they were not recognised as such, contrary to what was the case of Ólafur *ísfirðingur*'s whale in Greenland (1385 AD).

1 Cf Anon 1890: 5.

6.2.4 Gaffing[1]

From the 16th through the 19th century a minor fishery of the northern bottlenose whale is recorded in the Faeroe Islands, especially in Suðuroy. When the, mostly solitary, animals came inshore a gaff (*sóknarongul*, F; 'attack hook') was hewn into their melon (forehead) after which they were carefully guided into the littoral to be pulled ashore by the attached line. For understandable reasons the method gave rise to some fanciful early accounts. However, good documentation shows that, in technical terms, this was gaffing as a primary means of catching free-swimming middle-sized cetaceans, in contradistinction to gaffing as a secondary means of already enclosed and/or beached smaller cetaceans (*eg*, dolphins, orcas and pilot whales). The method was clearly fully developed in 1584 and carried the hallmark of long experience and careful adjustment to the whales' migratory pattern. This indicates that it was at least of mediaeval origin. It is furthermore submitted that the account by al-'Udhrī and al-Qazwīnī, from the mid 11th century AD, about the Norse catching black right whale calves in Ireland also involves primary gaffing, or a related method which might be called 'anchoring'. These two cases suggest that gaffing should be considered as a distinct whaling method, even for the taking of larger cetaceans, although it is unlikely to have been in widespread use.

7 Norse hand harpoon tow whaling (as from 1610)[2]

The Icelandic *Ballarár Annal* offers the earliest evidence about Basque whaling in Iceland and tells about the Basques whaling inshore in Northwest Iceland in 1608. They also whaled there in 1613, 1614 and 1615. Foreign Old whaling continued inshore at Northwest and West Iceland to the 18th century.

On circumstantial evidence the entry in *Skarðsár Annal* from 1610 which reads "Tókst upp hvalaskutlan á Vestfjörðum" must be rendered 'Whale har-

1 Cf Lindquist 1994 ms: ch 10.8 (pp 441-448).
2 Cf Lindquist 1994 ms: ch 10.7.3 (pp 436-440); A.16.10 (pp 691-719); A.17.2 (pp 772-855).

pooning[1] was begun in the Westfjords'. This could refer to Jón Ólafsson *hvalfangari/hvalamaður* ('whaler') who was said to have 'string-ironed' (*strengjárnað*) whales in Ísafjarðardjúp, Northwest Iceland, during the period, 1610-1621. Presumably the inspiration, and possibly some gear, came from the Basques. The other early accounts are as follows:

In 1638, bishop Gísli Oddsson described Icelandic harpoon tow whaling in which a line 50-60 m long was fixed to the stem of the boat. Whether this alludes to Jón Ólafsson's whaling or a separate instance cannot be said.

A peasant, Ólafur Jónsson (*Hvala*-Ólafur), at Arnarfjörður, in Northwest Iceland, seems in the mid 17th century to have harpooned larger rorquals which were sometimes too strong to be taken in tow whaling with an 8-10 oared boat (*ie*, 28-30 foot/8.9-9.3 m long), even when using additional drags.

Eggert Ólafsson (1, 1772: 546f) described how some Icelandic peasant fishermen in Northwest Iceland 'In earlier times'[2] specialised in bay whaling: They operated in a company of 2-3 large and strong, specially build, boats and used harpoon tow whaling with additional impediments (brushwood). In order to keep the whales embayed the whalers were assisted by smaller boats from which stones were thrown into the water. The whales were finally lanced. The hunt was apparently successful but there is no evidence for considering it more than a local phenomenon of limited duration. The same concerns the previous two or three cases. However, all these cases have been unduly generalised and applied retrospectively to pre-1610 Norse whaling in an uncritical and unsound manner.

From the late 17th to the early 18th century peasant fishermen of Eyjafjörður in North Iceland apparently took bottlenose whales in hand harpoon tow whaling.[3] They also harpooned harbour porpoises in the same way as seals.

---

1 *Ie*, rather than 'whale shooting', meaning spearing.

2 This needs not refer further back than to the 17th century, or four to five generations.

3 For an undefined brief period a certain Jonas Tre(l)lund maintained a station or base in Hrísey, Eyjafjarðasýsla. Whether Tre(l)lund actually whaled inshore in (North) Iceland we cannot say but in 1661 his establishment served as a base for whaling in the Spitsbergen-Jan Mayen area. It could have influenced the local whaling activities.

There is positive evidence about Ólavur Larvasson (Olof Lauridsen) having harpooned three pilot whales (6 and 4 ells long, and a smaller one) in the Faeroe Islands in 1619.[1] The legend about Óli *jarnheysur* presumably reflects this instance. It shows that harpoon tow whaling involving small to medium-sized cetaceans like pilot whales was dangerous and on the brink of being possible by a single boat crew. This fact and the novelty of the method could explain the preservation of the story.

The next certain evidence about the use of harpoons in the Faeroe Islands seems to be from 1734 when the Faeroes Lawthing decreed that nobody was allowed to use harpoons (*skutler*) in the pilot whale drives before the pod escaped to sea and everybody agreed to abandon it.

In 1781/82, Svabo remarked that, in addition to whaling lances, harpoons had long been used in the Faeroese pilot whale hunt after driving was abandoned. In my opinion, this does not contradict the conclusion that Ólavur Larvasson might have been the first to attempt harpoon tow whaling in the Faeroe Islands four to five generations earlier, possibly under the influence of the Old whaling at Spitsbergen from 1611 onwards. He needs not have had a whaling harpoon proper at his disposal: The largest whale was probably 3 m, rather than 3.8 m, long, so the mediaeval Norse seal/porpoise/dolphin harpoon could have been used.

So far I have only found one account about harpooning proper of larger cetaceans by peasant fishermen in Norway, *ie*, by J. Fellman, from the 1820s.[2] He reported that peasant fishermen in Altafjord, West Finnmark, conducted hand harpoon whaling in 1816-1818. It presumably involved a form of tow whaling. In 1818, eight larger whales were caught and Fellman was in no doubt about the prospects regarding whaling 'for the local people if one began conducting it in an appropriate manner.' There is no information about a continuation of this whaling.

1 Although his personal circumstances may possibly have permitted him to conduct such whaling as from 1616/17 or 1613 we know nothing about this having actually been the case (cf Thorsteinsson 1976: 7).

2 Cf Fellman 1, 1906: 63; 3, 1906: 70f; see also Helland 1905: 670.

In 1801, J. Rathke (1907: 112) mentioned that peasant fishermen in Fugløya, Nordland, Norway,

> 'regretted that boat and equipment, namely a basking shark line of 150 fathoms or more in length, was too expensive for them: they also seemed to fear the danger of this [*ie,* shark] fishery in their frail boats: a basking shark had recently smashed the whole side of one of their eight-oared boats because they incautiously approached it.'

Such circumstances can hardly have fostered more than sporadic attempts in tow whaling.

Several modern authors mention the lack of suitable whaling equipment in Iceland but the issue is more complex than this, or as Jón Eiríksson (1768: 253f) put it:

> 'The inhabitants have nothing of what is needed to repair the whale fish catching; neither vessels, lines nor other gear; they cannot afford to buy it, neither is it on sale with the merchants; everywhere they lack knowledge and experience in this occupation.'

Exactly for this reason the Danish-Norwegian government, after about 1750, through the *Icelandic Partnership*, worked for the creation of a small Icelandic Old whaling industry as part of the *Innréttingar* ('Factories') in Reykjavik.[1]

In 1752, two hookers[2] came to Iceland in order to 'serve in fishing and, if opportunity occurred, to take whales' on behalf of the *Innréttingar* (cf *Sauðlauksdal Annal*). N. Horrebow (1752: 226) concluded:

> "But as they now in addition to the hookers have had harpooning equipment sent to them, and one who understands it, who can teach them to manage this work, I expect that the whale fish will not get away with such an easy deal henceforth.'

1 Skúli Magnússon, senior treasury officer in Iceland *(landfógeti),* and Jón Eiríksson, senior government servant in Copenhagen, were clearly its driving forces.

2 *Ie, Friderichs Gáfa* of 32 lasts (64 t) and *Friderichs Ósk* of 34-40 lasts (68-80 t) burden.

Despite the enlisting of further foreign harpooners, the whaling project was unsuccessful and in 1756 a government committee investigated its viability. In 1757, 'The king [...] reminded anew the partners to pursue fisheries proficiently and to try to iron [*járna, ie*, harpoon] whales in the way the Greenland voyagers do' (cf *Sauðlauksdal Annal*). Nevertheless, the whaling venture failed. Jón Eiríksson (and Skúli Magnússon?) considered the main reason to have been 'inexperience' on the part of the local people.

During the years 1778-1787, the Danish-Norwegian government once again tried to establish hand harpoon tow whaling in Iceland, this time as peasant fisherman bay whaling, especially in northwestern Iceland.[1]

In 1778-1779, a survey of whale occurrence around Iceland was conducted,[2] followed by a Treasury (*Rentekammer*) announcement that those peasants who industriously pursued whale catching would be awarded a bounty. Also in order to encourage whaling an ordinance in 1779 modified the provisions of the Icelandic lawbook *Jónsbók* (from 1281/83 AD) about the land share from 'transported whale' (*flutningshvalur*) so that it would not be due when a whale was landed and flensed on a stony shore at no detriment to the estate.[3] According to a royal resolution in March 1781 implements for the catching of whales and basking sharks were sent to Iceland. The chief governor (*stiftamtmand*) over Iceland remarked that these lines, etc, had to be of the smallest sort because the peasants in the counties concerned were said only to pursue young whales. He thought that the award for whaling should consist of the value of the equipment and that the steward-sheriffs (*sýslumenn*) of Ísafjarðarsýsla and Barðastrandarsýsla, in Northwest Iceland, should report whether the gear was used diligently. In April 1782, the king awarded a peasant in Strandasýsla and a company of 12 men from Aðalvík, both in Northwest Iceland, generous money rewards but nothing is known of possible continued efforts on their part.

In 1781, Jón Eiríksson suggested that young promising farmers' sons be sent to Copenhagen in order to learn the 'art' of whaling by joining the expeditions of the Royal Greenlandic Trading Company for three to four seasons.

1 Jón Eiríksson (d 1787) seems also to have been instrumental in this undertaking.
2 Cf. Lindquist 1994 ms: A. 16.3 (pp 654-664).
3 Cf Lindquist 1994 ms: A.15.2.5 (p 643). See also chapter 6.2.3, above.

At the Althing in 1788, a decree from the previous year was announced to the effect that the king offered to provide, upon supplication, grants for the purchase of whaling gear at the most suitable fiords, notably in Northwest and West Iceland, and to ensure

> 'that some able and teachable young persons from such places may, without payment, be thoroughly taught this catching and the way in which to treat the fish and that they thereafter receive some assistance in order to resettle in Iceland at one or another place which is suitable for such catching and there apply their acquired knowledge.'[1]

This initiative appears to have been completely fruitless.

An apparently final attempt to establish hand harpoon tow whaling Basque style in Iceland was made in 1829-1832. In 1828/29, the provincial governor over the western part of Iceland drew the attention of the Treasury in Copenhagen to the fact that the promotion of whaling in the country depended on replacing the 'imperfect' gear used with better equipment and on the education of the people in using it. Concerning the latter he thought training at land stations in Greenland most useful. The Greenlandic Trade Direction then offered to engage a few young Icelanders for two to three years in the Danish whaling fleet and calculated the costs of whaling gear, including 3-4 shallops, needed for a small company in Iceland.

By royal resolution of March 1829 merchant Friðrik Svendsen (of Flateyri, Önundarfjörður, Vestur-Ísafjarðarsýsla) received considerable financial support in order to establish a 'whaling works at Ísafjarðardjúp' ("Hvalfangerie-Anlæg ved Isefjords Dyb"). Svendsen enthusiastically devised the project along the lines of the bay whaling of the Basques and the early Old whaling trade, and apparently prepared it well. Whaling, using several shallops, was attempted during the 1830 season only, but failed totally. In 1831/32, Svendsen wished to withdraw from the enterprise and sometime after September 1833 the whaling boats and other equipment were auctioned off.[2]

1 Cf Anon 1986: 434f; Stephensen and Sigurðsson 5, 1855: 450f.

2 Cf Stephensen and Sigurðsson 9, 1860: 384f, 394f; 10: 1861: 165f, 339.

Assuming that these Icelandic enterprises after 1750 did not unrealistically pursue rorquals their target species must have been the black right whale because the whaling season was from spring to autumn.[1] Caused by the Basque and Old whaling industries, the black right whale was presumably already about 1750 scarce in Icelandic waters[2] and became effectively absent there no later than about the turn of the century. While 'inexperience' on the part of the Icelanders in the method of hand harpoon tow whaling is manifest the sharply declining trends in the right whale populations appear to have been even more decisive. The Icelanders apparently did not learn the new skills before the black right whales were gone; neither could the employment of foreign harpooners have made up for the increasing scarcity of whales so the enterprises as such were clearly destined to rapidly fail economically.

8 Summary

In my doctoral dissertation (cf Lindquist 1994 ms) I reviewed critically the current views and available sources concerning peasant fisherman whaling in the West Nordic/Northeast Atlantic area, ca 900-1900. Based on, *inter alia*, catch-technical principles and a comprehensive West Nordic/Northeast Atlantic perspective the analysis has resulted in a radical reinterpretation of the character and history of Norse peasant fisherman takes of cetaceans in that period. The picture which has emerged is coherent although many

1 The bowhead whale would have been present only during winter.

2 Jón Guðmundsson *lærði*, in his *Short Natural History of Iceland*, written in 1640-1644, mentioned that black right whales existed in great number around Iceland but the foreign whalers pursued only this species which was rapidly being depleted. (Cf Guðmundsson 1924: 9; see also 10). Furthermore, Bjarni Pálsson and Eggert Ólafsson, from their research in Iceland, 1752-1757, reported that (black right) 'Whales formerly stayed in great numbers at the western part of the country; but since the Spanish and French whalers have hunted them so intensely in Iceland in the recent centuries until early in this [*ie*, 18th] century, they are partly destroyed, partly they have fled whence farther to the north.' (Cf Olafsen 1, 1772: 540). Government officials in Copenhagen dealing with Icelandic issues will also have been familiar with this report to the Royal Danish Society of Sciences and Letters before it was published in 1772.

details remain to be settled. The results and my tentative views are summed up below - without many qualifications, however.

Into modern times there existed among the Norse a comprehensive body of real knowledge concerning cetaceans and other traditions about real and imagined whales. The association of various cetaceans with fish species (and, in fact, the zooplankton on which both fish and cetaceans preyed) fostered the notion of the 'fish driver' ('herring driver'). From prehistoric times especially fin and minke whales were considered 'fish drivers' which were offered either general or circumstantial inviolability.

From perhaps 1-400 AD the Norse considered 'fishes', including cetaceans, to be in the domain of the god Njörðr and when collected or caught they were 'Njörðr's gift'. In gratitude, *eg*, whale tails were sacrificed to him in the open air. From the 11th century AD, 'Njörðr's gift' smoothly translated into the Christian 'God's gift' in the context of which (if not earlier) the 'fish driver' was a major divine agent. At God's instigation the 'fish driver' drove fish inshore so they could be caught by line and hook, net and (beach) seine provided the fishermen behaved peacefully. Otherwise it would keep the fish away from the land or drive them out into the ocean again. At least from late mediaeval times Icelanders also considered the *fiskreki* (being the fin whale), as one of the 'good whales', to be the main protector of the fishermen at sea against the wicked whales and other monsters there. The cosmological role of the 'fish driver' is particular obvious in this respect. The 'fish driver' notion existed with Norse fishermen through the 19th century but from the mid 18th century scholars increasingly criticised it: they argued that shoal fish also came inshore where no 'fish drivers' were seen; furthermore, that where the cetaceans-fish/zooplankton association existed the cetaceans followed the spawning fish rather than drove it.

Down to the 18th century the Icelanders continued to state the size of cetaceans in, among other things, the old Norse appraisement unit 'whale ell' (**hvalsalin*). According to the underlying linear appraisement scale, 1 ell (of ca 50 cm) in the animal's eye-genital slit distance (being approximately half the overall length) corresponded to 5 'whale ells' in appraisement. In the Faeroe Islands the 'whale ell' unit in the course of the Middle Ages was renamed 'skin' (*skinn*), presumably after the common tender and

land unit by that name, as the division of the whales followed the (infield) shares of estates in the communal whaling bays. A secondary old Norse appraisement scale, based one ell higher than the general scale, was used in the Gulathing law district of West Norway, the Faeroe Islands, Shetland and Orkney until 1274 AD, and thereafter, under Magnús *lagabœtir*'s National Code, also in the rest of Norway, to determine which cetaceans could be appropriated by free persons of sub-odal and odal rank, respectively, *vis-à-vis* the crown. In actual whale divisions weighing on scales, measuring in containers and simple counting were used. 'Whale ell' and corresponding Faeroese 'skin' appraisements yielded disproportional shares. This led the Faeroese in 1832 to adopt a rod the calibrated volumetric measure of which offered equal 'skin' parts and could be directly applied to pilot and bottlenose whales. The Icelandic appraisement of whales in the legal tender of 'ells wadmal', which existed as a legal requirement about 1200 AD, may have been another way of facilitating a proportional division, possibly in response to the introduction of the tithe a century earlier. (Cf figure 5).

To the late 19th century, cetaceans were an important resource in the subsistence and semi-commercial economy of peasant fishermen in the Northeast Atlantic area. Dead and alive, they were subject to comprehensive legal regulations according to the method and the circumstances of their taking.

The late prehistoric Norwegian littoral and inshore legal régime seems to have been perpetuated in Iceland while it was modified in Norway. According to it the coastal estate had extensive rights in the littoral and the inshore waters, with an outer 'driftage zone' (up to ca 600 m from shore) and an inner 'net zone' (to a depth of ca 7.5 m). In the 'net zone', of infield status, the estate owned the hunting and fishing rights while it owned driftage (*ie*, mainly whales and wood) in the 'driftage zone'. Pertinences, for example sealing and fishing grounds, could also be acquired through prescription, both within the bounds of private estates and in the commons. 'Whale comings' were often formally alienated from the estates concerned. Traps, being man-made constructions and arrangements, were private property of the highest legal (*ie,* infield) status and protection, and in the commons they remained so for 10-20 years although not used. (Cf figures 2-4).

The Norse peasant fishermen gathered naturally stranded live cetaceans and beached carcasses and salvaged drifting ones. Old carcasses did not provide meat for human consumption but they offered other cetacean products, mainly blubber for oil, baleen and bones.

At particular localities in Norway, Iceland and Greenland cetaceans were naturally ebb-trapped which made them an easy prey to both orcas and coastal inhabitants. Coastal inhabitants also confined cetaceans in shallows so as to induce their stranding by falling tide. These simple ways of taking cetaceans are presumably of Mesolithic origin. The driving and beaching method seems to have been developed from confining and ebb-stranding. In all Norse lands pods of dolphins, orcas and pilot whales were more or less regularly driven ashore using the *manngard*. Pilot whaling in the Faeroe Islands constitutes a specialised hunt within this ancient tradition. In Norway inlets suitable for such beaching were often called *hvalvík*. In such hunts the drivers and the shore estate traditionally divided the catch equally. (Cf figure 7).

From late Mesolithic times the coastal inhabitants in Scandinavia developed trapping of smaller cetaceans by means of wattle-work garths, stockades and stone dams the size and strength of which increased over time. Where migrating animals did not enter the traps proper on their own initiative they were guided into the traps by intercepting weirs or driven into them by boats forming a *manngard*.

Along the West, Mid and North Norwegian coast it was possible to enclose larger cetaceans in bigger inlets with a favourable topography. From Mesolithic times cetaceans were most likely enclosed there using the *manngard* (boats) but after perhaps 1-400 AD heavy beams and lattices were presumably employed as additional means and inlets improved upon by the erection of stockades, permanent lattices and stone dams. Stone whaling garths are described in Norway and they seem also to have existed in Iceland and Shetland in mediaeval times. Through the Middle Ages the big Norwegian whale traps were called *hvalvágr* and in modern times *hvalgård*.[1] In West Norway some of these whaling voes survived into modern times. Sometime before the 16th century bast nets were partly adopted there instead of lattices in the main pathways, later to be replaced by herring

1 So in current spelling.

seines in all but one. In the West Norwegian whaling voes the enclosed (minke) whales were from high mediaeval times to the late 1890s shot with crossbow arrows which infected them with clostridium bacilli. After some days the whales became so sick that they could be lanced and landed. Being man-made traps the whaling voes and garths were private (including communal) property of infield status, for which reason the proprietor(s) owned the whole catch there. (Cf figure 6).

At least from Neolithic times to 1870 large cetaceans were speared in Norwegian inshore waters from single small boats. In Iceland the method was used until the mid 1890s. After about 700-900 AD, the whaling spears presumably had detachable iron heads. In northern Norway whalers (called *hvalstikkere*) in modern times also thrust the spear head into the whales by means of a very long shaft. The history of this method is not clear but it seems to be a regional variant of the spearing method. Within one to two weeks time the whales succumbed to the clostridium infection which the spear head and wound inflicted upon them. Only a very limited number of carcasses were recovered. (Cf figures 8-9).

The earliest recorded instances of harpoon whaling proper by Norse peasant fishermen date from 1610 in Northwest Iceland and 1619 in the Faeroe Islands. The Icelandic case presumably relates to the Basque whaling in the same area as from 1608. The Spitsbergen Old whaling had its heyday some years later which could have offered the example in the Faeroese case. Peasant fisherman harpoon (tow) whaling appears not recorded in Norway before 1816-1818. In Iceland hand harpoon tow whaling was attempted on various occasions until 1830. Some of these enterprises clearly made the whalers legendary, similar to what happened with Ólavur Larvasson/Óli *jarnheysur* in the Faeroe Islands (1619), but renown also accompanied whale spearers.

After the mid 18th century, the government in Copenhagen tried, at considerable costs, to establish hand harpoon tow whaling in Iceland to replace the traditional spearing method and, thus, to augment the benefits from whaling. Firstly, in 1752-1757, there was an attempt to create a small Icelandic Old whaling trade, based in Reykjavik, with two hookers. Secondly, in 1778-1787, the government tried to create peasant fisherman bay

whaling Basque style in West and Northwest Iceland. Gifts of whaling equipment were distributed there, bounties paid and arrangements made for the training of Icelandic harpooners in the Danish-Norwegian whaling fleet. Thirdly, a final attempt in bay whaling was made during the summer season of 1830 from a station in the northwest Icelandic fiord Ísafjarðardjúp. Lack of experience on the part of the Icelanders surely contributed to the failure of the whaling operations of these enterprises but the greatly depleted state and continued decline of the black right whale population must have been the most decisive factor.[1]

Acknowledgements

The author is grateful to Mr Brian Smith, Archivist, Lerwick, Shetland, for having read the draft and suggested improvements to the language, to Miss Margrét Ingibjørg Lindquist, Reykjavik, for having traced the figures, and to the University of Akureyri for publishing the treatise.

1 The fact that government officials and whaler merchants continued, over a period of eighty years, to promote such whaling enterprises raises interesting questions about their notions of whale presence in the ocean in general; whale populations (as distinct from species); whale reproduction; and biological, behavioural and migrational effects of whaling on the whales.

Abbreviations

* In front of a word indicates that this word or form is not recorded but that it is inferred.

ÆB *Ældre bylov eller bjarköret*; Older City and Mercantile Law (*bjarkeyjarréttr*), codified and written down in the late 12th century AD; in force until the new City Law was enacted 1276 AD. (Cf NGL 1, 1846: 301-336).

F Faeroese.

FTL Frostathing Law Code; occasionally destinguished as 'Older' FTL because MLL (1274 AD) was formally enacted as regional codes; the extant text is from 1260-1269 AD but it was first written down in the early 11th century AD. (Cf GTL 1, 1846: 119-258).

GG *Grágás* ('Grey Goose') is the name of the non-codified laws of the Icelandic commonwealth (effective to 1271 AD) as extant in private law collections; references to them is by the page(s) in the standard edition of the texts by V. Finsen, 1852-1883 (cf Finsen 1974a-c), usually written as 'GG [*vol #*]: [*page #*]'; the separately paginated parts of volume one are designated *1a* and *1b*, respectively, according to tradition.

GTL Gulathing Law Code; occasionally destinguished as 'Older' GTL because MLL (1274 AD) was formally enacted as regional codes; it was probably written down during the last half of 11th century AD but extant texts are a century younger. (Cf NGL 1, 1846: 1-118).

I Icelandic.

ÍF *Íslenzk fornrit.*

JB *Jónsbók* ('Jón's Book'), the legal code of king Magnus (6) Haakonsson, the Lawmender (*lagabœtir*), for Iceland, adopted by the Althing 1281/83 AD. (Cf Halldórsson 1904).

J.E. Jón Eiríksson.

JS *Járnsíða* ('Iron Side'), the legal code of king Magnus (6) Haakonsson, the Lawmender (*lagabœtir*), for Iceland, 1271-1281 AD. (Cf NGL 1, 1846: 259-300).

KLMN Cf Anon 1980-1982.

MLL *Kong Magnus Haakonssons landslov*; National Code of king Magnus (6) Haakonsson, the Lawmender (*lagabœtir*), 1274 AD. (Cf NGL 2, 1848: 1-178).

NGL *Norges gamle love.* (Cf Keyser and Munch 1846-1849 [NGL 1-3]; Storm 1885 [NGL 4]; and Storm and Hertzberg 1895 [NGL 5]).

NL *Norske lov*; king Christian 5's Norwegian Law, 1687 AD. (Cf Anon 1982).

NLB *Norske lovbog*, king Christian 4's Norwegian Lawbook, 1604 AD. (Cf Hallager and Brandt 1981).

NN New Norwegian (*nynorsk*), the written standard of Norwegian rural dialects.

D/N Dano-Norwegian.

ON Old Norse.

Selected bibliography

Unpublished sources

CHRISTIE, A. ca 1785/86a.
'Beretning om hvalfangsten i Sartors skibrede'. UBB ms 56: f22r [p 43]-f53r [p 105]. 63 inscribed pages. University Library, Bergen.

CHRISTIE, A. ca 1840 [ca 1785/86b].
'Beretning om hvalfangsten i Sartors skibrede'. Transcript from ca 1840 (by Stuwitz). UBB ms 221. f1r-f82v. 164 inscribed pages. University Library, Bergen.

LINDQUIST, O. 1994.
'Whales, dolphins and porpoises in the economy and culture of peasant fishermen in Norway, Orkney, Shetland, Faeroe Islands and Iceland, ca 900-1900 AD, and Norse Greenland, ca 1000-1500 AD'. 1: Thesis; 2 (Parts 1-2): Appendix. Doctoral dissertation, Faculty of Arts, University of St Andrews, Scotland, November 1994. xvii+v+v+1273 pp.

SMITH, B. 1996.
Pers comm. Letter, dated Lerwick, 12 March 1996, to the author from Mr Brian Smith, Archivist, Shetland Archives, Lerwick, Shetland, UK.

Printed sources

AÐALBJARNARSON, B. (ed). 1979.
Snorri Sturlason. Heimskringla. 1-3. Íslenzk fornrit 26-28. Hið íslenzka fornritafélag. Reykjavik.

AGUILAR, A. 1981.
'The black right whale, *Eubalaena glacialis*, in the Cantabrian Sea'. ANON 1981: 457-459.

AGUILAR, A. 1986.
'A review of old Basque whaling and its effect on the right whales (*Eubalaena glacialis*) of the North Atlantic'. BROWNELL, BEST and PRESCOTT 1986: 191-199.

ANDERSEN, S.H. 1995.
'Coastal adaption and marine exploitation in Late Mesolithic Denmark - with special emphasis on the Limfjord region'. FISCHER 1995: 41-66.

ANONYMOUS. 1839.
Samlinger til det norske folks sprog og historie. 6. Udgivne af et samfund. Carl L. Roshauw. Christiania [Oslo].

ANONYMOUS. 1845.
Grönlands historiske mindesmærker. 3. Publ by Det kongelige nordiske oldskriftselskab. S.L. Möllers bogtrykkeri. Copenhagen.

ANONYMOUS. 1890.
Indstilling fra den kongelige norske regjerings Departement for det indre under 30te januar 1890 nedsatte Komite til undersøgelse betræffende spørgsmaalet om nye lovbestemmelser ang. hvalfangsten i Finmarkens og Tromsø amter samt under sildefiske, tilligemed forslag til lov om hvalfangsten i Finmarkens og Tromsø amter. Separataftryk [Offprint]. W.C. Fabritius & Sønner. Kristiania.

ANONYMOUS. 1896.
Diplomatarium Islandicum. Íslenzk fornbréfasafn, sem hefir inni að halda bréf og gjörninga, dóma og máldaga, og aðrar skrár, er snerta Ísland eða íslenzka menn. 3: 1269-1415. Publ by Hið íslenzka bókmentafélag. Copenhagen.

ANONYMOUS. 1940-1948.
Annálar 1400-1800. Annales Islandici posteriorum sæculorum. 4. Publ by Hið íslenzka bókmenntafélag. Reykjavik.

ANONYMOUS. 1938 [1694].
'Jorde-boeg og mandtal ofuer nordmend og finner udj Ost og -West Findmarchen saa og paa grentze finnerne for anno 1694'. UTNE and SOLBERG 1938: 33-48.

ANONYMOUS. 1980-1982 (1956-1978).
Kulturhistorisk leksikon for nordisk middelalder fra vikingetid til reformationstid. 1-21; Index. 2nd ed, reprint of the 1st ed 1956-1978. Rosenkilde og Bagger. Copenhagen.

ANONYMOUS. 1981.
Thirty-first report of the International Whaling Commission. Covering the thirty-first financial year 1979-1980. Approved by the Commission at its thirty-second meeting in Brighton, June 1980. Authorised to be printed together with the Chairman's Report of the thirty-second meeting. Cambridge.

ANONYMOUS. 1982 [1687].
Kong Christian den femtes Norske lov 15de april 1687. Med Kongeloven 1665. Universitetsforlaget. Oslo/Bergen/Tromsø.

ANONYMOUS. 1986.
Alþingisbækur Íslands. Acta comitiorum generalium Islandiæ. 16: 1781-1790. Publ by Sögufélag. Reykjavik.

ARLOV, T.B. 1993.
Ishavsfangsten fra Bergen 1672-1802. Historisk institutt - AVH. Universitetet i Trondheim. Trondheim.

ASCANIUS, [P.]. 1775.
Icones rerum naturalium, ou figures enluminées d'histoire naturelle du Nord. 3. Cl. Philibert. Copenhagen.

BASBERG, B.L., RINGSTAD, J.E., and WEXELSEN, E. (eds). 1993.
Whaling and history. Perspectives on the evolution of the industry. Publikasjon nr. 29. Kommandør Chr. Christensens hvalfangstmuseum. Sandefjord.

BENEDIKTSSON, J. 1968.
Íslendingabók. Landnámabók. Íslenzk fornrit 1. Hið íslenzka fornritafélag. Reykjavik.

BJØRK, E.A. 1956/57-1963.
Færøsk bygderet. 3: Strandretten. Fyrilestrar hildnir fyri innbodnum veturin 1958/59 av E.A. Bjørk, dómarafulltrúa. 1963. Matrikulstovan. Thorshavn.

BLOCH, D., and ZACHARIASSEN, M. 1989.
'The "skinn" values of pilot whales in the Faroe Islands. An evaluation and a corrective proposal.' NORTH ATLANTIC STUDIES 1, 1989, 1: 39-56. Århus.

BOIE, F. 1822.
Tagebuch gehalten auf einer Reise durch Norwegen im Jahren 1817. Herausgegeben mit Anmerkungen von H. Boie. Köngl. Taubstummen-Institut. Schleswig.

BROWNELL, R.L., BEST, P.B., and PRESCOTT, J.H. (eds). 1986.
Right whales: Past and present status. Proceedings of the Workshop on the Status of Right Whales. New England Aquarium, Boston, Massachusetts 15-23 June 1983. Reports of the International Whaling Commission: Special Issue 10. Cambridge.

BRUNCHORST, J. 1889.
'Hvalfangst i den bergenske skjærgaard'. NATUREN 3/13, 1889: 160-171. Christiania [Oslo]/Bergen/Copenhagen.

CLOUSTON, J.S. (ed). 1914.
Records of the Earldom of Orkney 1299-1614. Publications of the Scottish History Society. Second series 7. The University Press. Edinburgh.

CONWAY, *Sir* Martin. 1906.
No man's land. A history of Spitsbergen from its discovery in 1596 to the beginning of the scientific exploration of the country. The University Press. Cambridge.

DEBES, L. 1963 (1673).
Færoæ et Færoa reserata. Det er Færøernis oc færøeske indbyggeris beskrifvelse udi hvilken føris til liuset adskillige naturens hemeligheder oc nogle antiqviteter, som her til dags udi mørcket hafve været indelugte oc nu her opladis alle curieuse til Velbehagelighed sammenskrefven oc forklaret aff Lucas Jacobsøn Debes. Matthias Jørgensen. Copenhagen. Facsimile ed. Munksgaard. Copenhagen.
EDGE, T. 1906 [1622].
'A brief discoverie of the northerne discoveries of seas, coasts, and countries, delivered in order as they were hopefully begunne, and have ever since happily beene continue by the singular industrie and charge of the worshipful Society of Muscovia Merchants of London, with the ten severall voyages of Captaine Thomas Edge the Authour.' PURCHAS 13, 1906b: 4-31.
EIRÍKSSON, J. (ed). 1768.
Udtog af afgangne lavmand Povel Vídalíns afhandling om Islands opkomst under titel Deo, Regi, Patriæ; samt nogle andres af samme indhold anvendt paa nærværende tider. Jonas Lindgren, Det ridderlige Akademies bogtrykker. Sorøe. 406 pp. (Including: Um uppreistar eður viðrettingar bækling Islands eru þessar visur kvednar aar 1769. Þrykt af Direchteuren yfer Hans Kongel. Majestæts og Universitets Boktryckerie, Nicolai Christian Høpffner. Copenhagen 1770. 8 pp).
ENGHOFF, I.B. 1995.
'Fishing in Denmark during the Mesolithic Period'. FISCHER 1995: 67-74.
FELLMAN, J. 1906.
Anteckningar under min vistelse i Lappmarken. 1-4. Finska litteratursällskapets tryckeri. Helsingfors.
FINSEN, V. (ed). 1974a (1852).
Grágás. Islændernes lovbog i fristatens tid udgivet efter det Kongelige bibliotheks haandskrift og oversat af V. Finsen, for det nordiske Literatur-samfund. [1a:] Text I. [1b:] Text II. Reprint of the orig ed, Copenhagen 1852. Odense universitetsforlag. Odense.
FINSEN, V. (ed). 1974b (1879).
Grágás efter det arnamagnæanske haandskrift nr. 334 fol., Staðarhólsbók. [2]. Reprint of the orig ed, Copenhagen 1879. Odense universitetsforlag. Odense.
FINSEN, V. (ed). 1974c (1883).
Grágás. Stykker, som findes i det arnamagnæanske haandskrift nr. 351 fol. Skálholtsbók. og en række andre haandskrifter. [3]. Reprint of the orig ed., Copenhagen 1883. Odense universitetsforlag. Odense.

FISCHER, A. (ed). 1995.
Man and sea in the Mesolithic. Coastal settlement above and below present sea level. Preceedings of the International symposium, Kalundborg, Denmark 1993. Oxbow Monograph 53. Oxford.
GUÐMUNDSSON, J. 1924 [ca 1640-1644].
'Ein stutt undirreitting um Íslands adskilianlegar nátturur'. HERMANNSSON 1924: 1-26 [incl 9 plates].
GULDBERG. G.A. 1884.
'The North Cape whale'. NATURE 30, 12 June 1884: 148f. London.
GULDBERG, G.A. 1889.
'En kort historisk udsigt over hvalfangsten i ældre tider'. FOLKEVENNEN 13, 1889: 17-51. Christiania [Oslo].
HALLAGER, F. and BRANDT, F. (eds). 1981 (1855).
Kong Christian den fjerdes Norske lov af 1604. Efter foranstaltning af det Akademiske kollegium ved det Kongelige norske Frederiks universitet. Feilberg & Landmark. Christiania [Oslo] 1855. Reprint by Norsk historisk kjeldeskrifts-institutt. Oslo.
HALLDÓRSSON, H. 1980.
Íslenzkt orðtakasafn 2. 2nd enlarged ed. Íslenzk þjóðfræði. Almenna Bóka-félagið. Reykjavik.
HALLDÓRSSON, Ó. (ed). 1904.
Jónsbók. Kong Magnus Hakonssons lovbog for Island vedtaget paa Altinget 1281 og réttarbœtr de for Island givne retterbøder af 1294, 1305 og 1314. S.L. Møller bogtrykkeri. Copenhagen. [Reprint, 1970, of the ed of 1904 with a postscript by G. Thoroddsen. Odense universitetsforlag. Odense].
HALLDÓRSSON, Ó. (ed). 1978.
Grænland í miðaldaritum. Sögufélag. Reykjavik.
HELLAND, A. 1905.
Topografisk-statistisk beskrivelse over Finmarkens amt. 1: Den almindelige del. Norges land og folk topografisk-statistisk beskrevet 20. H. Aschehoug & co. (W. Nygaard). Kristiania [Oslo].
HELTZEN, I.A. 1981 [1834].
Forsøg til physisk og oeconomisk beskrivelse over Ranens præstegjeld i Nordlandene 1834. Rana museums- og historielag. Mo.
HERMANNSSON, H. (ed). 1924.
Jón Guðmundsson and his natural history of Iceland. Islandica. An Annual Relating to Iceland and the Fiske Icelandic Collection in Cornell University Library. 15. Cornell University Library; Andr. Fred. Höst & sön; Bókaverzlun Sigfúsar Eymundssonar. Ithaca, NY; Copenhagen; Reykjavik.

HØDNEBØ, F. 1981 (1968).
'Pertinensformel. Norge' [Incl Iceland]. KLNM 13, 1981: 238.
HOLMBÄCK, Å. 1981 (1968).
'Pertinensformel' [In general and Sweden]. KLNM 13, 1981: 234-237.
HOLM-OLSEN, L. (ed). 1983 [1945].
Konungs skuggsiá. Gammelnorske tekster utgitt av Norsk historisk kjeldeskrift-institutt i samarbeid med Gammelnorsk ordboksverk 1. 2nd rev ed. Kjeldeskriftfondet. Oslo.
HORREBOW, N. 1752.
Tilforladelige efterretninger om Island med et nyt landkort og 2 aars meteorologiske observationer. Copenhagen.
JACKSON, G. 1978.
The British whaling trade. Adam & Charles Black. London.
J.E. 1782.
'Um marsvína rekstr'. RIT ÞESS ISLENZKA LÆRDÓMS-LÍSTA FELAGS 2 (1781), 1782: 73-96. Copenhagen.
JØRGENSEN, R. 1994.
Kommersiell kvalfangst i Nord-Norge på 1600-tallet. TROMURA/Kulturhistorie 26. Tromsø museums rapportserie. Institut for museumskvirksomhet. Universitetet i Tromsø. Tromsø.
JÓHANNESSON, J. (ed). [1940].
'Annáll Gísla Þorkelssonar á Setbergi eða Setbergsannáll. Úrdráttur 1202-1713'.
ANON 1922-1988, 4, 1940-1948: 1-215.
JOHNSEN, A.O. 1981 (1962).
'Hvalfangst. Norge'. KLNM 7, 1981: 160-164.
JOHNSTON, A.W. and A. (eds). 1907-1913.
Orkney and Shetland records. Diplomatarium Orcadense et Hialtlandense. Fornbréfasafn Orkneyinga og Hjaltlendinga. 1. The Viking Society for Northern Research. King's College, University of London. London.
JONSGÅRD, Å. 1992.
Den norske vågehvalfangsten. Fangsthistorie, forskning, problemer. Kommandør Chr. Christensens hvalfangstmuseum, Sandefjordmuseene. Publication no 27. Sandefjord.
JÓNSSON, F. (ed). 1930.
Det gamle Grønlands beskrivelse af Ívar Bárðarson (Ivar Bårdsson). Levin & Munksgaards forlag. Copenhagen.

JÓNSSON, F. (ed). 1931.
Edda Snorra Sturlusonar. Udgivet efter håndskrifterne. Publ by Kommissionen for Det Arnamagnæanske Legat. Gyldendalske boghandel, Nordisk forlag. Copenhagen.
JÓNSSON, G. (ed). 1964 (1936).
Grettis saga Ásmundarsonar. Bandamanna saga. Odds þáttr Ófeigssonar. Íslenzk fornrit 7. Hið íslenzka fornritafélag. Reykjavik.
JUEL, [N.] 1889.
'Hvalfangsten i Finmarken'. NORSK FISKERITIDENDE 8, 1889: 165-171. Bergen.
JUEL, [N.] 1892.
Forslag til lov om hvalfangst. Efter Indredepartementets anmodning udarbeidet af kommandørkaptein Juel. W.C. Fabritius & sønner. Kristiania [Oslo].
KEYSER, R., and MUNCH, P.A. (eds). 1846.
Norges gamle love indtil 1387. 1. Norges love ældre end kong Magnus Haakonssöns regjerings-tiltrædelse i 1263. Chr. Gröndahl. Christiania [Oslo].
KEYSER, R., and MUNCH, P.A. (eds). 1848.
Norges gamle love indtil 1387. 2. Lovgivningen under kong Magnus Haakonssöns regjeringstid fra 1263 til 1280, tilligemed et supplement til förste bind. Chr. Gröndahl. Christiania [Oslo].
KEYSER, R., and MUNCH, P.A. (eds). 1849.
Norges gamle love indtil 1387. 3. Lovgivningen efter kong Magnus Haakonssöns död 1280 indtil 1387. Chr. Gröndahl. Christiania [Oslo].
KNAG, N. 1938 [1694].
'Matricul oc beschrifuelse ofuer Findmarchen for anno 1694'. UTNE and SOLBERG 1938: 1-32.
KRISTJÁNSSON, L. 1986.
Íslenzkir sjávarhættir. 5. Bókaútgáfa menningarsjóðs. Reykjavik.
LANDT, J. 1800.
Forsøg til en beskrivelse over Færøerne. Tikjøbs Forlag. Copenhagen.
LILIENSKIOLD, H. 1942-1945 [1698].
'Speculum boreale eller den finmarchiske beschrifwelsis'. 1-2. SOLBERG 2/2, 1942: 49-168; 2/3, 1942: 169-232; 2/4, 1942: 233-327; 3, 1945: 1-363.
LINDQUIST, O. 1993.
'Whaling by peasant fishermen in Norway, Orkney, Shetland, the Faeroe Islands, Iceland and Norse Greenland: Mediaeval and early modern whaling methods and inshore legal régimes'. BASBERG, RINGSTAD and WEXELSEN 1993: 17-54.

NANSEN, F. 1911a.
In northern mists. Arctic exploration in early times. Transl by A.G. Chater. 1-2. William Heinemann. London.
NANSEN, F. 1911b.
'Professor Johannes Steenstrup og hvalfangsten i Normandi'. TIDENS TEGN 2, 29 April 1911, 116: 1f. Kristiania [Oslo].
NORDAL, S. (ed). 1979 (1933).
Egils saga Skalla-Grímssonar. Íslenzk fornrit 2. Hið íslenzka fornritafélag. Reykjavik.
OLAFSEN, E. 1772.
Vice-lavmand Eggert Olafsens og Land-physici Biarne Povelsens reise igiennem Island, foranstaltet af Videnskabernes sælskab i Kiøbenhavn [...] med dertil hørende 51 kobberstøkker og et nyt forfærdiget kart over Island. 1-2. Jonas Lindgrens enke. Sorøe.
Ólafsson, E., 1772, cf Olafsen 1772.
OLAVIUS, O. 1780.
Oeconomisk reyse igiennem de nordvestlige, nordlige, og nordostlige kant af Island ved Olaus Olavius, kammer-secretaire samt tolder og constitueret Consumtions-Forvalter i Skagen, tilligemed Ole Henchels Underretning om de islandske svovel-miiner og svovel-raffinering, samt vice-markscheider Christian Zieners Beskrivelse over nogle surterbrands-fielde i Island. Efter H.K.M. allernaadisgste Befaling, ved det Vestind. gvin. rente- og general-told-cammers foranstaltning, udgivne; med nogle anmærkninger, register og forberedelse, samt et nyt land-charte og fleere kaabberstykker. Gyldendals forlag. Copenhagen.
OLAVIUS, Ó. 1964-1965 [1780].
Ferðabók. Landshagir i norðvestur-, norður- og norðaustursýslum Íslands 1775-1777, ásamt ritgerðum Ole Hanckels um brennistein og brennisteinsnám og Chr. Zieners um surtabrand. 1-2. Transl by S. Steindórsson frá Hlöðum. Bókafellsútgáfan h.f. Reykjavik.
PEDERSEN, L. 1995.
'7000 years of fishing: stationary fishing structures in the Mesolithic and afterwards'. FISCHER 1995: 75-86.
PETERSEN, Å. 1969.
Marsvin og marsvinsjægere. With an introduction by S. Andersen. Udgiverselskabet Middelfart by- og egnshistoriske museum. Middelfart.
PINKERTON, J. 1808.
A general collection of the best and most interesting voyages and travels in all parts of the world; many of which are now first translated into English. 1. Longman/Hurst/Rees and Orme/Paternoster-Row/Cadell and Davies. London.

PROULX, J.-P. 1993.
Basque whaling in Labrador in the 16th century. Studies in archaeology, architecture and history. National Historic Sites. Parks Service. Environment Canada. Ottawa, Ontario.

PURCHAS, S. (ed). 1906a.
'A commission for Thomas Edge our servant, appointed to goe as our factor in the ship called the Mary Margaret, of the burthen of one hundred and fiftie tunnes, for the killing of the whale and morses upon the coast of Greenland, or any other place in the North Ocean: Given the 31. of March, 1611.' PURCHAS 14, 1906c: 30-33.

PURCHAS, S. (ed). 1906b-c [1625-1626].
Hakluytus posthumus or Purchas his pilgrimes. Contayning a history of the world in sea voyages and lande travells by Englishmen and others. 13-14. Hakluytus Posthumus or Purchas His Pilgrimes. [2nd ed of the orig ed in 5 vols, publ in London 1625-1626]. The Hakluyt Society. Extra series. James MacLehose and Sons, publishers to the University. Glasgow.

RATHKE, J. 1907.
Afhandling om de norske fiskerier og beretninger om reiser i aarene 1795-1802 for at studere fiskeriforhold m.v. Utgivet efter original-haandskriftet paa Det store kgl. bibliotek i Kjøbenhavn af Selskabet for de norske fiskeriers fremme. A/S John Griegs bogtrykkeri. Bergen.

SCHNALL, U. 1992.
'Der Kampf um die "Gabe Gottes"'. DEUTSCHES SCHIFFAHRTSARCHIV 15, 1992: 209-222. Hamburg.

SCHNALL, U. 1993.
'Medieval Scandinavian laws as sources for the history of whaling'. BASBERG, RINGSTAD and WEXELSEN 1993: 11-15.

SOLBERG, O. (ed). 1942-1945.
Finnmark omkring 1700. 2/2 and 3. Nordnorske samlinger 4 and 7. Publ by Etnografisk museum. A.W. Brøggers boktrykkeri a/s. Oslo.

STEPHENSEN, O., and SIGURÐSSON, J. 1855-1861.
Lovsamling for Island, indeholdende udvalg af de vigtigste ældre og nyere love og anordninger, resolutioner, instructioner og reglementer, althingsdomme og vedtægter, collegial-breve, samt andre aktstykker, til oplysning of Islands retsforhold og administration i ældre og nyere tider.
5: 1784-1791. 1855;
9: 1826-1831. 1860;
10: 1832-1836. 1861.
Universitets-Boghandler Andr. Fred. Höst. Copenhagen.

STEPHENSEN, S. and M. 1799-1806.
Minnisverd tidindi [2:] frá vordøgum 1798 til midsumars 1801. 1799-1806. G.J. Schagfjord. Leirárgørdum vid Leirá.

STORM, G. (ed). 1885.
Norges gamle love indtil 1387. 4. Indeholdende supplementer til de tre foregaaende bind samt haandskriftbeskrivelse med facsimiler. Grøndahl & Søn. Christiania [Oslo].

STORM, G., and HERTZBERG, E. (eds). 1895.
Norges gamle love indtil 1387. 5. Indeholdende supplement til foregaaende bind og facsimiler samt glossarium med registre, udgivet efter offentlig foranstaltning ved Gustav Storm og Ebbe Hertzberg. Grøndahl & Søn. Christiania [Oslo].

THORSTEINSSON, A. 1976.
'Skothvalur og rekahvalur'. MONDUL 2, 1976, 1: 3-7. Thorshavn.

TROIL, U. von. 1808.
'Letters on Iceland: Containing observations on the civil, literary, ecclesiastical, and naturla history; antiquities, vulcanos, basaltes, hot springs; customs, dress, manners of the inhabitants, &c, &c. made, druing a voyage undertaken in the year 1772, by Joseph Banks, Esq. F.R.S. assisted by Dr. Solander, F.R.S., Dr. J. Lind, F.R.S., Dr. Uno von Troil, and several other literary and ingenious gentlemen.' PINKERTON 1808: 621-734.

UTNE, M. BROCK, and SOLBERG, O. (eds). 1938.
Finnmark omkring 1700. Aktstykker og oversikter. 1. Nordnorske samlinger 1. Publ by Etnografisk museum. A.W. Brøggers boktrykkeri a/s. Oslo.

VÍDALÍN, P. 1854.
Skýríngar yfir fornyrði lögbókar þeirrar, er Jónsbók kallast. Publ by Hið íslenzka bókmentafélag. Prentsmiðja Íslands, Einar Þórðarson.