



Bacalhau: Alimento, Sociedade e Cultura

Entrevista a Álvaro Garrido

Bacalhau na diáspora portuguesa

Memória e Identidade

Stockfish e rotas comerciais



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## The medieval **STOCKFISH TRADE:**

Stephen Wickler\*

### a maritime perspective FROM NORTHERN NORWAY

Figure 1. Map of northern Norway showing locations mentioned in the text.

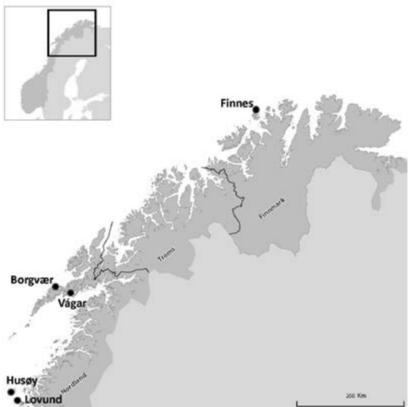
Life in northern Norway has been dependent on the sea and marine resources since initial settlement following the retreating ice at least 11,500 years ago. Small islands have played a significant role for maritime communities since the Mesolithic when occupation of offshore islands reflected the maritime orientation of hunter-gatherer settlement. Although settlement along the coast, including coastal islands, in northern Norway has been the subject of extensive archaeological interest, archaeologists have generally under communicated the importance of smaller islands as central nodes in coastal communication, contact and exchange binding the inhabitants of northern Norway to one another since the Stone Age. This is paralleled by the present-day situation in which small islands that were formerly socio-economic midpoints have been transformed into depopulated remote entities on the margins of society over the past century. The following overview of archaeological evidence for the development of maritime communities in Arctic Norway and their linkages to the medieval stockfish trade focuses to a large extent on the central importance of islands where stockfish was produced for export.

#### cod fishery and the early stockfish trade Evidence for an intensification of fishing activity, potential trade in stockfish, and increased control of marine resources by the chiefly elite during the late Iron Age in northern Norway has been documented from a variety of sources, including coastal settlements, boathouse remains and evidence of long--distance transport of cod from Arctic Norway as far away as the Viking Age settlement of Hedeby in Germany by the end of the first millennium AD. Archaeological sites in the Lofoten archipelago provide a particularly convincing argument for the existence of seasonal fishing settlements as early as the Migration Period (AD 400-550). It is also evident that the commercial revolution linking northern Norway to a broader northern European economic sphere by the 12th century led to a dramatic intensification of fishing and an expansion of permanent fishing settlements.

Borgvær, a small (1.8 x 1 km), low-lying, offshore island located in close proximity to the important Iron Age chieftain center at Borg on the large

Commercialization of the Norwegian

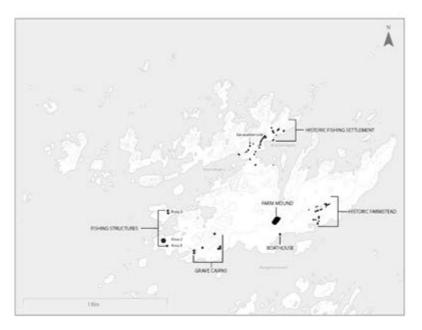
island of Vestvågøy in Lofoten illustrates the transformation from a seasonal to a permanent fishing settlement intertwined with the developing stockfish trade<sup>1</sup>. Borgvær was already an important fishing base in the late Iron Age due to its attractive location in close proximity to fishing grounds and also had close economic ties to the settlement at Borg. This small island provides a rare glimpse into the origins and development of the commercialized North Atlantic cod trade and the transformation stockfish production



<sup>1</sup> Wickler, S. and L. E. Narmo 2014. Tracing the development of fishing settlement from the Iron Age to the Modern period in northern Norway: A case study from Borgvær in the Lofoten Islands. Journal of Island and Coastal Archaeology 9:72-87.

<sup>\*</sup>The Arctic University Museum of Norway, UiT The Arctic University of Norway

controlled by a chiefly elite in the Viking Age to the globalized market trade of dried cod as a monetary commodity by the 12th century, accounting for around 80 percent of Norwegian exports in the High Middle Ages.



Fishing-related house structures revealed initial temporary and intermittent occupation during the Merovingian Period (AD 550-800) with expanded use during the early Viking Age (AD 800s) and probable permanent occupation later in the Viking Age. The location of structures was maintained for many centuries due to optimal placement in the maritime landscape with convenient access to a sheltered natural harbor and advantageous boat landing locations. Initial development of a settlement mound took place during the transition from the Viking Age to medieval period and was followed by continuous permanent settlement up until the middle of the 15th century. Occupation was reestablished in the 16th century and continued into the 17th century. Settlement mound development can be linked to intensified fishing activity and commercialization of winter cod fishing in the 12th century. Intensive fishing activity in the recent historic period is reflected by the occupation of multiple site locations related to the establishment of a trading station and large fishing station in the late 1700s.

It is clear that the shift from temporary fishing--related structures to a permanent maritime settlement mound reflects the process of cod fishing commercialization. The island can be viewed as a microcosm illustrative of a larger process in which fishing settlements in Lofoten and elsewhere in northern Norway were transformed from the late Iron Age up until the early modern period. Borgvær also serves to illustrate both the complexity of 'temporary' fishing-related structures with multiple episodes of intermittent use over a number of centuries and the potential for documenting similar structures in Lofoten and elsewhere in Arctic Norway.

#### The role of maritime communities and coastal trade centers in medieval stockfish production and export

In contrast to the predominant focus among historians and other scholars on the economics of the stockfish trade from a middleman-merchant perspective emphasizing the role of Bergen and the Hanseatic League, I have chosen to present a producer-based perspective in which small maritime communities scattered along the coastline and among the islands of northern Norway were the central actors.

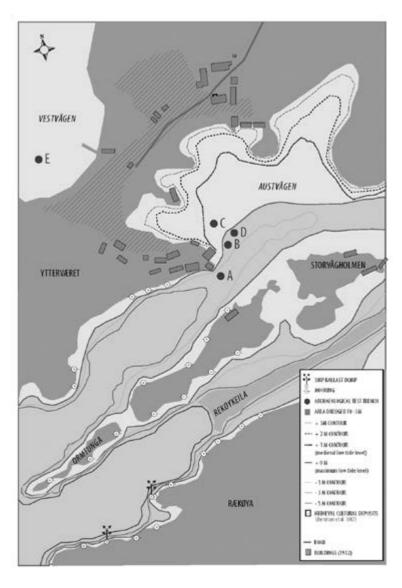
Lofoten had a key role in the stockfish trade as a center for stockfish production, which played a decisive role in the growth of large fishing settlements such as Vágar at Storvågan on the island of Vestvågøy, the only medieval settlement with an urban character within the Arctic Circle and a major center for trade and commerce in Lofoten². Archeological excavations of cultural deposits on land and a shallow submerged harbor context in the central settlement area of Vágar are briefly presented here as a means of highlighting the maritime aspects of the settlement.

There is indirect mention of Vágar from the 10th century AD and references to important events taking place at this location appear in the early 11th century in the medieval sagas. More secure evidence for the rising status of Vágar as a central place appears in the 12th century but the process by which it was transformed from a small fishing

settlement to the commercial center of medieval Arctic Norway is still poorly understood. However, it is clear that this transformation was directly linked to the commercialization of cod fisheries in Lofoten during the 12th century, which had dramatic long--term consequences for the sociopolitical structure of northern Norway3. The commercial fishing of spawning cod during the winter was channeled into the production and export of stockfish fueled in part through demand created by Lenten fare regulations of the Catholic Church in the rapidly growing urban centers of northern Europe. The stockfish trade provided an economic foundation enabling the rise of Vágar to its position of prominence in the 13th century. Stockfish production is a seasonal activity and both population size and the level of commercial activity at Vágar reflected this cycle and fluctuated accordingly. Permanent year-round settlement is evident in the archaeological record from the 13th century, but the seasonal nature of settlement appears to increase over time in keeping with the intensification of commercial cod fishing in the winter.

From the 12th century onward, the port of Bergen had a monopoly on the foreign export of stockfish. The German Hanseatic merchants made substantial inroads into the Norwegian market during the 13th century and completely dominated foreign trade by the first half of the 14th century, accompanied by a marked decrease in direct trade with England. As a result of the Hanseatic merchant's effective foreign trade organization, the existing network of trade contacts by Norwegian merchants between Vágar and Bergen, and positive terms of trade with European markets, Vágar flourished as a transit center for the export of stockfish. Vágar's urban phase of settlement waned by the second half of the 14th century and in 1384 it is described as 'a provincial town', having returned to its former status as a common fishing settlement. The reasons for this transformation are complex and involved a variety of environmental factors and socioeconomic conditions leading to a diminished role for Vágar as a transit port in the stockfish trade.

Despite the obvious maritime orientation of Vágar throughout its existence, archaeological investigations up until the late 1980s focused



exclusively on the terrestrial component of the settlement consisting of c. 20,000 m² of contiguous cultural deposits more than two meters thick. Subsequent underwater excavations in the harbor at Vágar revealed an intact submerged cultural deposit from the 13th century with excellent preservation of organic remains⁴. This deposit, consisting largely of refuse dumped from fishing boats anchored

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<sup>2</sup> Bertelsen, R. 2009. Vágar, en kortlevd by eller et urbant fiskevær? In J. Brendalsmo, F.E. Eliassen and T. Gansum (eds.) *Den Urbane Underskog: Strandsteder, utvekslingssteder og småbyer i vikingtid, middelalder og tidlig nytid*: 199-212. Oslo, Novus Forlag.

<sup>3</sup> Perdikaris, S. 1999. From chiefly provisioning to commercial fishery: Long-term economic change in Arctic Norway. *World Archaeology* 30:388–402.

<sup>4</sup> Wickler, S. 2013. The potential of shoreline and shallow submerged Iron Age and medieval archaeological sites in the Lofoten Islands, northern Norway. In M-Y. Daire et al. (eds.) Ancient Maritime Communities and the Relationship Between People and Environment Along the European Atlantic Coasts: 61–71. British Archaeological Reports International Series. Oxford: Archaeopress.

in the harbor, provides an unprecedented opportunity to explore the maritime nature of settlement at Vágar during the period when it was assuming its role as a central place. Of the c. 5700 pieces of bone analyzed from the medieval cultural deposit, about 90 percent are fish and 95 percent of the identified fish are cod. A majority of the fishbones consist of cranial elements from cod most likely disposed of during the first stage of stockfish production that took place on fishing boats. The abundance of cod otoliths in the deposit, exceeding 400, also supports this conclusion. Otolith analysis has revealed a fishery with spawning old and large individuals dominated by Northeast Arctic cod rather than coastal cod. Due to poor preservation conditions, very little bone and only a handful of otoliths were recovered from the land excavations.

The well preserved archaeological remains from the submerged medieval deposit enable a more reliable and complete picture of marine oriented activity that was the foundation upon which the settlement of Vágar was built and provide an important supplement to the terrestrial deposits. The collective results from underwater excavations also demonstrate the potential of underwater archaeology for providing insights into the maritime orientation that characterized coastal settlement in Lofoten during the medieval period.

#### Maritime settlement mound sites and what they reveal about the stockfish trade

The accumulation of domestic refuse, turf and other building materials, dung from domestic livestock and other material associated with long-term use and occupation of specific locations has resulted in the formation of substantial settlement mounds in northern Norway. Although these sites are commonly referred to as farm mounds (gårdshaug) in the archaeological literature, this term masks the inherent variability between settlement mound sites reflecting a variety of settlement types in addition to farms and underplays the importance of settlement mounds that are primarily associated with maritime activity. The combination of turf as the dominant construction material, a cold climate conducive to slow

decomposition, and topography that offers few alternatives for settlement locations have all contributed to an abundance of settlement mounds along the coast of northern Norway. Although a total of approximately 900 settlement mound sites are recorded in the national site register, it is estimated that 1,500-2,000 mounds exist. Settlement mound sites vary significantly in size with cultural deposits up to seven meters in thickness and dimensions of several hundred meters, although mounds with an area of 2000--3000 m<sup>2</sup> and one to two meter thick deposits are more common, with many that are significantly smaller. The main period of mound development extends from the 11th century through to the early modern period and occupied structures are still common on mound sites.

The establishment of a significant number of mound sites can be associated with the intensification of fishing activity, particularly the winter cod fishery, focused on the production of stockfish during the Viking Age. However, the scope and capacity for long-distance transport of fish products such as stockfish was limited during this period given the restricted nature of existing exchange networks and lack of larger merchant vessels. The dramatic social transformation that accompanied the introduction of Christianity and control of resources by the crown in the early medieval period is reflected in fishery production. The rise of the Hansa and control of trade by the German Hanseatic merchants based in Bergen by the 14th century also had a dramatic impact on stockfish export and, indirectly, maritime settlement mound site development.

Coastal and offshore island maritime--oriented settlement mound sites are commonly associated with fishing activity combined with a limited amount of livestock breeding to supply meat, wool, and dairy products. Mound sites are also a hallmark of fishing settlement (fiskevær) expansion northward on islands along the outer coast of northern Norway representing Norse colonization of Indigenous Sámi settlement areas in northern Troms and Finnmark. This raises a topic that is currently the focus of considerable discussion regarding the relative importance of coastal Sámi fisher-farmer settlement and fishing activity. The Sámi were highly visible in Lofoten up until the middle of the 19th century when assimilation rapidly diminished their presence as a distinct ethnic group. A multidisciplinary approach to this problem, by historians and archaeologists, has presented evidence tracing the roots of Sámi settlement in Lofoten back to the early Iron Age.

Although settlement mounds have been predominantly interpreted, both explicitly and implicitly, as reflecting Norse activity, Sámi mound sites have also been documented. It has been claimed that the development of coastal Sámi farmsteads in some regions can be traced through the formation of medieval settlement mounds. The development of Sámi mound sites is attributed to a stabilization of settlement due to increased emphasis on agriculture, livestock breeding and fishing in addition to trade access. The presence of both Sámi and multiethnic mound sites in northern Norway is to be expected, but the question of how ethnic identity is expressed through material culture remains problematic.

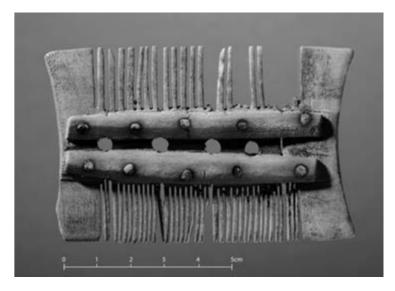
The rapidly expanding Norse colonization of coastal Sámi areas in Finnmark beginning in the 1200s and its impact on maritime socioeconomic relations is an issue that can be directly addressed through maritime settlement mound studies. An illustrative example of this process is the multiphase marine exploitation site at Finnes on the island of Ingøy along the outermost coast of western Finnmark. The exposed northern coast of Ingøy lies in close proximity to rich fishing grounds and is skirted by numerous small islands and skerries that provide shelter from the open ocean. Ingøy lies within a core Sámi settlement area with a minimal Norse presence until the 13th century when fishing settlements spread rapidly along the outer coast. Excavations at Finnes focused on the floor area of a turf structure from the final phase of occupation at the site, a small 19th century fishing village<sup>5</sup>.

The site was initially used as a temporary marine hunting and fishing base with multiple episodes of activity in the Early Metal Period from c. 400-200 BC. Excellent preservation conditions resulted in the recovery of bone fishhooks and a harpoon point as well as unfinished fishhooks and other bone manufacturing waste. A rich faunal



assemblage was also present in this stratum, including well-preserved bones of seals, seabirds and fish. There was a hiatus in site use until the medieval period when occupation recommenced with activity during the late 13th to early 14th century. There was a continued focus on marine exploitation in the initial medieval phase with abundant bone midden comprised of similar species of seal, bird and fish as those being exploited during the Early Metal Period and a complete absence of terrestrial fauna.

A second phase of medieval occupation suggestive of incipient settlement mound development is dated to the 1300s. This phase is interpreted as representing more intensive occupation with finds such as strike-a-light flint, a soapstone spindle whorl and bakestone fragments. A double-sided reindeer antler comb from this layer is a type that first became common in the 13th century with similar combs dated to the 14th century at Bryggen in Bergen. It is most plausible that the Finnes combs were



<sup>5</sup> Wickler, S. 2016a. The centrality of small islands in Arctic Norway from the Viking Age to Recent Historic Period. *Journal of Island and Coastal Archaeology* 11(2): 171–194.

Figure 6. Plan drawings from the Husøy medieval shipwreck excavation.

Figure 7. Excavation of the Lovund medieval shipwreck in 2017

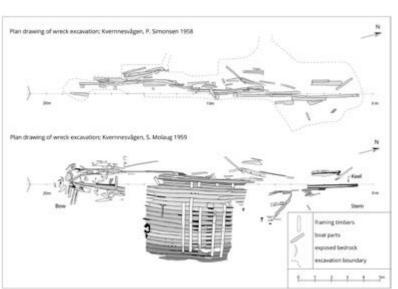
produced in Bergen or elsewhere in southern Norway and imported as part of the stockfish trade. The bakestone fragments of chlorite schist are also imports most likely shipped north from Bergen in exchange for stockfish. Bakestones are thin rock slabs that are circular to oval in shape with diameters ranging from 25-50 cm used to bake / fry bread over an open flame during the medieval period.

The collective evidence associated with the second phase of medieval occupation at Finnes is interpreted as representing Norse fishing settlement colonization of an existing Sámi marine hunting and fishing site. Norse settlement and incipient mound formation can be directly linked to commercialized cod fishing and the stockfish trade characterized by the presence of typical imported objects such as combs and bakestones.

#### The late medieval Golden Age of the stockfish trade: a maritime shipwreck perspective

Medieval shipwrecks are a valuable source of information on maritime interaction and networks of communication and trade along the extensive coastline of Norway. Although written sources provide a

general framework for understanding the medieval maritime sphere, remains of seagoing vessels can reveal more specific insights into the nature of interaction, the commodities being distributed,



and the role of local coastal communities. Two medieval shipwrecks have been documented in northern Norway on islands, c.17 km from one another, near the Arctic Circle in Nordland<sup>6</sup>. The first was reported to Tromsø Museum by local residents on Husøy in Træna in 1955, and the second was discovered during mechanized sand excavation in 1976 on Lovund.

The wrecks from Husøy and Lovund represent roughly contemporaneous Nordic clinker-built cargo ships from the 15th century. The Husøy wreck is a broad-hulled ship more than 20 m long built of pine from West Norway and the Lovund wreck is a large open vessel c. 12 m long built of oak from South Norway. Although both vessels were built in the south of Norway and most likely involved in the stockfish trade between northern Norway and Bergen, they were based at major stockfish production locations on offshore islands in the North Helgeland region of northern Norway.



The two cargo vessels provide snapshots of the stockfish trade reflecting an organizational model where the use of the transit port of Vágar had been replaced by direct transport of dried cod to Bergen on ships owned by northern Norwegian fishing communities. Moreover, the two vessels provide insights into the stockfish trade from the perspective of the maritime communities responsible for the dried cod production. The use of ships obtained from the south, where goods were traded, illustrates the nature of maritime trade at an important point in time during the late medieval period. The abundant small finds from the Husøy wreck, while neither extravagant nor costly, reveal a sophisticated inventory of personal possessions potentially owned by crew members

6 Wickler, S. 2016b. Medieval shipwrecks from North Norway and their contribution to understanding maritime interaction and trade. *International Journal of Nautical Archaeology* 45(1): 59-76.

from the local maritime community. While not as numerous, the objects recovered from the Lovund wreck are similar in terms of function and source. The collective finds also illustrate the broad range of contacts to which ordinary members of islander society were exposed through the stockfish trade. These individuals were members of outward-looking, dynamic maritime communities actively linked to impulses and influences from the burgeoning urban centers of Europe.

The account of Venetian merchant Pietro Quirini from 1432, a unique first-hand record of medieval life in coastal northern Norway, provides insights of relevance to the Træna and Lovund finds. Quirini was shipwrecked on Røst at the southern end of the Lofoten archipelago and later taken to Bergen in a ship loaded with stockfish. This is the first record of direct transport of stockfish to Bergen by a local maritime community representing an organizational model, known as *bygdefar* in Norwegian, which continued to characterize the stockfish trade into the 19th century.

The late medieval period from c. 1350 through to the end of the 15th century can be described as a Golden Age for the stockfish trade with the price for stockfish reaching a peak in the mid-1400s when fishermen received three times as much flour for their fish as during the century prior to the plague<sup>7</sup>. The price of stockfish dropped appreciably in the 16th century and never approached the same level in the following centuries. Both Helgeland wrecks are from this unique period in which local fishermen were able to achieve a degree of affluence that would have made possible the purchase of cargo vessels from the south in exchange for stockfish.

Despite a reduction of about 63 percent in the overall population of Norway following the plague pandemic, the latter part of the 14th century and most of the 15th century witnessed considerable growth in the coastal economy of northern Norway driven by favorable prices for stockfish and reduced competition for resources between fewer people. This fueled increased production of dried cod and infrastructural investment related

to the stockfish trade, including cargo ships suitable for long-distance open-sea voyages. The Helgeland wrecks provide archaeological evidence supporting historical documentation for direct trade with Bergen, and other potential maritime commercial centers in the south, during the 15th century<sup>8</sup>. Although difficult to confirm, the possibility that both vessels may have been obtained in Bergen in conjunction with the sale of stockfish, illustrates the extensive nature of maritime trade during the late medieval period.

#### Conclusion

This brief review of the medieval stockfish trade has explicitly prioritized a perspective highlighting the critical role played by the maritime communities in Arctic Norway responsible for producing the dried cod that was so highly sought after in the expanding urban centers of Europe. Another key element of this perspective is an emphasis on the maritime importance of the stockfish trade that was entirely dependent on small coastal and islander communities in the far north of Europe for its existence. The importance of island and maritime archaeology as a source of empirical data on the stockfish trade that enhances and supplements written historical sources has been illustrated by a number of case studies from my own research emphasizing the importance of Lofoten as a principal producer of stockfish. It is hoped that this contribution provides useful insights into the foundations of a maritime trade system with truly global dimensions further explored by others in this volume.

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<sup>7</sup> Nedkvitne, A. 2016. The development of the Norwegian long-distance stockfish trade. In J.H. Barrett and D.C. Orton (eds.) *Cod and Herring: The Archaeology and History of Medieval Sea Fishing*: 50-59. Oxford: Oxbow Books

<sup>8</sup> Wickler, S. and T. Falck 2020. The social context of boats and maritime trade in late medieval Norway: case studies from northern and southern peripheries. In J.A. Rodrigues and A. Traviglia (eds.) *IKUWA6. Shared Heritage: Proceedings of the Sixth International Congress for Underwater Archaeology.* 49-59. Oxford: Archaeopress.