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Footprints on the Edge of Thule: Landscapes of Norse-Indigenous Interaction

A Major New Research Programme

Introduction

In 2001 in response to a call for proposals on the topic of “Long-term settlement in the Ancient World” under The Leverhulme Trust Research Programmes Scheme, several of the current authors submitted a successful application for a project “Landscapes circum-Landnám: Viking settlement in the North Atlantic and its human and ecological consequences.” Fundamental to this was the examination of the nature of human impacts on the landscapes of what were then essentially unoccupied North Atlantic islands (the Faroe Islands, Iceland and southern Greenland, see Fig. 1), and the use of a suite of interdisciplinary palaeoenvironmental techniques to address questions of change. The project had a 5-year currency (June 2002–May 2007); papers relating to that project are still being published, and more than 80 refereed publications have already appeared.

Following a review by The Leverhulme Trust, we were invited to submit a proposal for further support with the recommendation that while a new award, if granted, should be “related” to the first, it should inter alia consider new questions in different geographical and thematic areas. Consequently, a proposal submitted by the first four authors of this paper sought to develop the notion of Norse impacts via not simply the signal deriving from the Norse period sensu stricto, but also any subtle indications of Norse-indigenous interactions in peripheral areas of the near-Arctic North Atlantic region, including Greenland and northern Scandinavia. We aimed to build upon and develop further the lessons and understanding acquired from the initial Landnám project to:

- examine the landscapes of interaction between incoming and indigenous groups around the Atlantic Arctic periphery;
- investigate the human and environmental interactions prior to, and set in motion by, successive colonization events;
- assess local interactions between environment, settlement, economy and subsistence within the context of medieval and later climate change;
- consider the impact of European demand for commodities on the biota of the near-Arctic North Atlantic, and the resulting adaptation of subsistence hunter-fisher and herding systems;
- foster international and interdisciplinary collaboration, including the encouragement of a new generation of researchers.
The proposal was successful and support for the new project, “Footprints on the edge of Thule: Landscapes of Norse-indigenous interaction,” was granted for a 4-year period (September 2007–August 2011). Within our own institutions, the project involves most directly 14 researchers (including 5 post-doctoral fellows and 5 PhD students). In addition to this, there is valuable cooperation from within the UK and internationally.

Background

The term *Thule* (Θούλη) is deeply engrained in the history of the Arctic. Its originator, the Massiliot Pytheas, writing in the fourth century BC, refers to a “congealed” ocean beyond it. The Arctic explorer Fridtjof Nansen took this to be the pack-ice off the coast of east Greenland, placing Thule, as several medieval scholars had done previously, in Iceland. As a metaphor, from Seneca’s *Ultima Thule* onwards, it has become synonymous with the northernmost inhabited lands, usually the Arctic fringes of the North Atlantic World, from the northern Baltic to northwest Greenland. In Greenland, Knud Rasmussen applied the name to the base he founded in 1910 amongst the Polar Eskimo around Cape York, and he adopted the name for his “Thule expeditions” across the Arctic. The principal archaeologist accompanying him, Therkel Mathiassen, attached the name *Thule* to the material culture from sites that he excavated and the term is generally applied to sites of the precursors of the modern Inuit in Greenland and beyond. We use *Thule* in its widest sense to encompass medieval European expansion towards and within the Arctic.
Around the Gulf of Bothnia the lure was furs, whilst along the Atlantic seaboard of Norway the core commodity was dried cod, which provided the underpinning protein for the process of urbanisation further south. Across the Atlantic, Norse Greenland was settled by subsistence farmers, whose hunting grounds on the west coast across the Arctic Circle provided such prestige goods as furs and walrus ivory for Europe. In all these places, the Norse encountered other peoples. In northern Scandinavia, the landscapes largely lay in the hands of Sami hunters, who, with their few domesticated reindeer, enter history through Ohthere’s (Ottar’s) account of his journey to the White Sea. Through the medieval period, Sami groups were drawn progressively into the European economic system, adopting crops and extending their hunting economy to include larger herds of reindeer; native religion was replaced by Christianity and the boundaries between indigene and incomer became more blurred, as Russians, Swedes and Norwegians vied for control of the Scandinavian Arctic.

In Greenland the situation was different initially. The first documented archaeology in the Arctic lies in Erik the Red’s recognition of the remains of palaeo-Eskimo (Old Norse skræling) artefacts in the southwest. Norse settlers moved into an abandoned landscape and early contacts with the Dorset peoples are enigmatic, as are those that came some time after AD 1150, as the bearers of the Thule Culture expanded southwards out of the High Arctic. With the demise of the Greenland settlements ca AD 1500, relations with Europe became intermittent, largely maintained through Basque, Dutch and English whalers, until Hans Egede arrived in the early eighteenth century and found only the ancestors of the modern Inuit.

Aspects of the Research Design and Methods

In exploring Norse-indigenous interactions on the Arctic fringe, examining the period of expansion and either abandonment (Greenland) or accommodation (Scandinavia) from ca AD 1000–1500 through new palaeoecological records, we are involved in attempts to define new climatic and economic constraints on environmental resource exploitation and to identify successful and failed patterns of resource exploitation in landscapes of interaction. European expansion into the Arctic, largely led by Scandinavians, began late in the first millennium AD and faltered with the climatic decline or the epidemics of the fourteenth century.

Among the hypotheses being tested are:

- the changing nature of land and marine resource use by the interaction of indigenous people and the “Norse” incomers will be evident in several of the palaeoecological indicators employed in this research;
- climate and environmental change will have influenced environmental resource availability and management;

and/or:

- trade in furs, skins, ivory, fish, and cereals will have significant impact on the way both indigenous and incoming societies develop;
- new patterns of resource exploitation emerged as a result of contact and assimilation.
Sites. Background and Selection

Southwest Greenland

The Eastern Settlement was the principal area of Norse activity in Greenland, where colonization endured the longest and where the final acts of Norse-Inuit interaction were perhaps played out. Although Norse and Thule archaeological sites in this region are largely non-complementary in their distributions—Norse farms are generally found in the interior, towards the heads of the fjords, whilst Thule camps occur in coastal areas—a “landscape of interaction” seems plausible for (at least) the region around Sandhavn (less than 2 km from the iconic Norse site of Herjolfsnes) where the ruins of both Norse buildings and Thule summer houses can be found. Results from Sandhavn will be compared with Norse “control” sites (for example farms from the inland region of Vatnahverfi, Eastern Settlement) and indigenous sites found amongst the skerries of the Western Settlement (for example Kangeq near Nuuk), in order to determine whether discrete environmental signatures can be assigned to each culture, and whether it is possible to separate these where both occur together.

The Gulf of Bothnia. Norrland, Northern Sweden

The problems of Norse and other group contact in the Swedish Arctic and contiguous areas of Norway, Finland and Russia are much more complex than the Greenlandic situation. The survival of many groups provides continuity but also poses a problem in disentangling interrelationships. This amalgamation has a long history extending back into the Bronze Age. At this stage, study sites are being selected from the region between Umeå and Jokkmokk. They will include Norse sites for which there is also an archaeological or historical record for a Sami presence, and areas of Sami occupation where there is evidence for key subsistence activities such as reindeer herding.

Atlantic Seaboard of Norway. Northern Norway and Finnmark

Two possible study areas will be examined in northern Norway and Finnmark. The first area consists of the hinterland of Vågen, Lofoten. Here there are ample marine and forage resources together with opportunities for marginal cereal production, allowing a range of integrated economic strategies. The introduction of commercial fishing operations during the twelfth century transformed the coastal landscape and led to increased cultural interaction with the indigenous Sami population. The demand for prestige items such as furs, and walrus tusks and hides, led to further integration. The second study area will be in Finnmark in the area around Berlevåg—a region of complex social and economic interaction among Norse, Sami and Russian, driving dynamic transitions in little understood patterns of environmental resource exploitation and change.

Summary of Principal Analytical Approaches

Chronology

This will primarily involve radiocarbon dating and associated modelling procedures (for example Bayesian statistics). Funding for 300 AMS $^{14}$C dates is provided within the project budget.
**Geomorphology**
The geomorphological record contains an integrated signal of both natural and anthropogenic changes. This is being used to provide key constraints on models of changing climate as well as providing contextual information for detailed palaeoecological investigation.

**Soils**
In cultural landscapes the identification and analysis of relict soil properties makes a considerable contribution to understanding human activities on land surfaces. Soil thin sections are being used as the foundation for soil investigations.

**Insects**
Fossil insect faunas including components of the Diptera and Coleoptera are being examined with their modern counterparts. These data will inform reconstruction of anthropogenic and natural habitats.

**Pollen and Spores**
High resolution studies of pollen and associated environmental proxies (microscopic charcoal, loss-on-ignition, and fungal spores) found preserved in peat, lake and soil deposits are providing detailed palaeovegetational data and act as proxies for climatic and anthropogenic change.

**Peat Geochemistry**
The determination and quantification of lithogenic elements in peat is being used to identify different sources of soil erosion (which may be local or regional in origin) in response to vegetation change.

**Climate, Environmental and Land Use Modelling**
Modelling is being used to assess the implications of climate change for issues such as boat travel and the distribution of marine mammals. It is also contributing to the development of land use models that permit investigation of historical grazing management and productivities under variable environmental conditions. A scenario-based approach will also allow the development of agent-based modelling to the evaluation of landscapes of interaction, and different possibilities for subsistence, trade, conflict, and resource denial.

**Concluding Points**
We are less than half way into the "Footsteps on the edge of Thule" project, and its outcomes lie in the future. At this stage it is hoped that, through new, substantial, regional palaeoenvironmental records and numerical models, the study will provide better understanding of the historical ecology of incoming and indigenous populations in Arctic Fennoscandia and Greenland, independent of the often slight archaeological record. The multidisciplinary approach is intended to throw light on ways in which co-existing nomadic and farming groups interacted with available resources, and how such communities reacted to environmental and economic change. It will add to debates about the factors
contributing to societal success or failure in marginal environments. As landscapes inherit the past, the development of a deeper knowledge of human interactions and evolving environments in sensitive Arctic and sub-Arctic systems has particular relevance to modern polar communities facing the challenges of conservation in a changing world.

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