# Maritime hunter-fishers through 10.000 years at Melkøya, Arctic Norway.

Morten Ramstad, Tromsø University Museum, University of Tromsø

The Melkøya project is an interdisciplinary project based on archaeological excavations at the island of Melkøya, Arctic Norway.
The project is financed by Statoil who are constructing a plant for receiving and producing liquefied natural gas (LNG) on the island.
Clusters of sites were identified in three areas, Normannsvika, Kilden and Sundfjæra, chronologically covering the time period from the Early Stone Age (10.000 BP) to the Sámi Iron Age (1500 BP).
Large-scale excavations were conducted in 2001 and 2002. The project will finish in 2006.


Melkøya is located in the strait of Sørøysundet, at 70°, 40 N in Finnmark, Arctic Norway. The island is less than 1 ha, and the highest point is 71 m.a.s.l. The coastline consists of bedrock, except for two pebble beaches on the more sheltered south side of the island. Sites were only identified in or around these two beaches.

Due to the Gulf Stream the climate of this costal region is unusually mild for its latitude. The climate is oceanic, the sea never freezes in winter and the annual median temperature is + 2° C. The weather can be highly unpredictable with rough seas, windy conditions and frequent storms. For people living by and from the sea, such conditions clearly structured social life as well as resource exploitation, habitation and how the landscape was used. Due to the location far above the Arctic Circle the people also had to cope with an environment that changes from two summer months of constant daylight, to an equally long period in winter when the sun does not rise above the horizon at all. Nevertheless, the excavations have documented vast amounts of settlement data from all prehistoric periods. Apart from the successful cultural adaptation to these conditions one has to take into consideration that Melkøya is located in the middle of a strong tidal current channel. Such channels have a particularly high plankton production which attracts fish, marine birds and sea mammals, making them one of the most optimal coastal biotopes for marine exploitation.

During the Stone Age the seasonal and spatial distribution of resources must have allowed for a high variety of choice for the people living at Melkøya. The chronological variation of settlement data collected through the project highlights how the available food resources structured or constrained, but did not determine past settlements on the island.

## Aims

The majority of Stone Age sites in Norway are defined by the presence of stone artefacts or semi-subterranean houses. Most excavations have focused on the distribution of artefacts or on the house structures themselves. This bias has not only reduced the amount of alternative data but also limited our understanding of past settlements. During the Melkøya project we felt that it was essential to ask what aspects of life in the Stone Age were neglected by virtue of this archaeological perception.

One way of addressing this would be to investigate larger areas incorporating a variety of approaches in order to identify alternative means of data. The main goal was to map, excavate and identify the function of as many of the prehistoric structures of the island as possible. By giving equal attention to multiple sets of data we hoped to stimulate new and alternative perspectives on the organization and structuring of space at hunter-fisher settlements.





## Main strategies and preliminary results

1. **Mechanical surface stripping** was used in order to explore as much as possible of the total extent of the past settlement areas. During the first season the topsoil was removed from large areas in and around the sites at Kilden and Normannsvika. During the work in Sundfjæra in 2002 we were able to uncover all of the suitable settlements areas.

| Area | Extent of surface stripping | No. of dwellings | No. of C-14 dates | Main period of occupation |
|---|---|---|---|---|
| Kilden | 675 m² | | 10 | Early Metal Period |
| Normannsvika | 3260 m² | 13 | 25 | Late Stone Age |
| Sundfjæra | 3040 m² | 19 | 114 | Early Stone Age - Sámi Iron Age |

In all areas, a large number of structures was identified, from semi-subterranean houses to lighter dwelling types and tent rings, to different types of hearths, cooking pits, storage pits, activity areas, dumping zones, middens as well as grave structures. These results clearly indicate that hunter-fisher settlements consisted of more than dwellings and areas for tool production. They also raise important questions regarding traditional concepts of settlement.

Kilden and Normannsvika have provided fresh data for the study of settlement patterns and intra-site structure during the Early Metal period and Late Stone Age respectively. From the top to the bottom of Sundfjæra, all prehistoric periods from the beginning of the Early Stone Age to the Sámi Iron Age were documented. Treating Sundfjæra as one context gives a unique diachronic picture of the way the landscape was utilized through time, permitting studies of stability and changes in the structuring of space over very long periods.

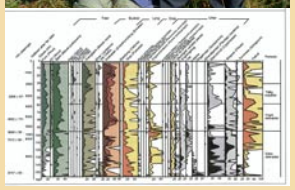
2. **Systematic excavations in "unpromising" parts of settlement areas.** By directing the attention to areas where no or few finds were recorded or no visible structures were observed, we aimed to generate new sets of data. A number of important finds were made, including a Late Stone Age grave placed directly in a crevice in the bedrock some distance away from the nearest site.

3. **Mapping and analysing fire-cracked stones** were seen as important to understand the context of habitation. As a means of heating and preparing food, these stones played an important role. The changing distribution of fire-cracked stones through time and space might re ect the length and/or intensity of the occupation. Based on the assumption that the need for heating will produce more stones per unit of time in winter than in summer, the analyses reveal significant information regarding the time of occupation. In combination with the analysis of phosphate and magnetic susceptibility we aim to get a better understanding of hearth technology through time.

4. **Analysis of phosphate and magnetic susceptibility** was important due to the poor preservation of organic material. By intensive sampling we were able to locate middens and to reveal the function of different types of structures. For example, at Sundfjæra the phosphate values support the interpretation of several stone cairns as graves. We also hope that these analyses can generate studies of functional as well as symbolic aspects related to the disposal of discarded material.

5. **Palaeobotanical investigations** were conducted in order to get a viable picture of the local vegetation resources that were available through time as well as the human impact on the vegetation. Additional studies are conducted in order to obtain knowledge about plants brought into the dwellings. Local vegetation and climatic history is studied from 5 peat profiles outside the settlement areas, and anthropogenic effects are also based on samples taken from inside dwellings and cultural layers. A total of 24 radiocarbon dates has enabled detailed palaeobotanical analyses from 8700 BP until present[1].

6. **Extensive use of GIS** to establish as many relations between structures, finds and landscape as possible. A micro - topographical map covering all of Sundfjæra was constructed, which led to new perspectives on the spatial relationships between topography and structures.

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Project management/archaeologists: Anders Hesjedal (leader), Anja Niemi and Morten Ramstad, Tromsø University Museum, University of Tromsø
Paleobotany: Christin Jensen and Ellen Elverland, Institute for biology, University of Tromsø
Soil science: Johan Linderholm, Environmental Archaeology Laboratory, University of Umeå
Archaeological conservation: Camilla Nordby, Cultural historical laboratory, Tromsø University Museum, University of Tromsø
Geology: Per Bøe and Jakob J. Møller, Tromsø University Museum, University of Tromsø

Melkøya project web-page: http://www.uit.no/melkoya/

Responsible for the project: Department of Archaeology, Tromsø University Museum, 9037 Tromsø

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(Endnotes)
1 Jensen, C. and Elverland, E. 2003. Melkøya – ei øy i stadig forandring, med og uten menneskets hjelp. Ottar. No. 248. Tromsø.