Introduction

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This chapter outlines the story of the find of eigth 500-year-old mumified Eskimo bodies at Qilakitsoq in the Uummannaq district of Northwestern Greenland and of the interdisciplinary scientific investigations carried out by researchers in natural science, medicine, and cultural history as an introduction to a volume of 26 scientific reports.

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When the two Greenlandic brothers, Hans and Jokum Grønvold, chanced upon the mummified bodies of some deceased Eskimos in two graves in a rock cleft near the abandoned settlement Qilakitsoq in the Uummannaq district of Northwestern Greenland one fine October day in 1972, a fascinating process of interdisciplinary research began.

At first, nothing really happened besides registration of the find in the files of the Greenland Museum. Neither the extent of the find was known, nor the number of buried persons. In early 1978, however, the attention of the new director of the Greenland Museum, Jens Rosing, was drawn to the case and he decided to make a personal investigation of the site.

With Gerda Møller, Curator of the Danish National Museum in Copenhagen, he travelled to Qilakitsoq at Easter 1978, opened the graves, took samples for radio carbon dating, and brought the preserved, mummified bodies og two children, found just below the cap stones, to Copenhagen.

It was something of a sensation when the results of the radio carbon dating appeared. The find dated from about A.D. 1475 (+/÷ 50 years). These were thus the oldest well-preserved bodies in the whole arctic region – and more important still – they were fully dressed in equally well-preserved skin clothing. Moreover, a number of garments and pieces of skin were found in the graves. The find offered a unique opportunity for close insight into the clothing of the Thule culture, giving information about the style and the complicated cut of men's and women's garments and expanding our knowledge about the development of Eskimo culture.

Furthermore, the mummies had lived during the same period as the last Norse descendants of Erik the Red and his followers, who were then still living at the Eastern Settlement (Østerbygden) in Southwestern Greenland. The mummies could be regarded as real "flesh-and-blood" representatives of the *Skrellings* the Norse people had encountered on journeys in Greenland according to the Icelandic and Norwegian Sagas.

So far, it was not even known how many bodies the graves contained. The dating, however, resulted in a thorough investigation of the site the same year, and the graves were emptied. It turned out that the find consisted of eight fully clothed, mummified bodies – two children and six adult females, many loose garments (78 pieces all together), and a number of unprepared skins. Jens Rosing has given his description of Qilakitsoq and the find in a book illustrated with his own drawings (Rosing 1979, 1986).

The reason for the excellent condition of the find, the well-preserved human bodies as well as the totally intact garments, hides etc., was favourable local conditions. Low temperatures, low air humidity, protective sheltering against water (rain and snow) enhanced an extensive drying of the material (natural mummification) and stopped the decaying processes which need water and a temperature above + 4 degrees Celsius.

The Greenland Museum decided to bring the whole find to Copenhagen for restoration and conservation in the laboratories of the National Museum of Denmark. This procedure was adopted first and foremost because of the garments. At the same time, however, many questions arose about the background and origin of the deceased persons. How old were they? Were they males or females? What did they die of? Did they die simultaneously and were they buried at the same time? Did they suffer from any chronic diseases? Could we learn anything about their ways of life and culture through investigating the bodies? What did they eat and how was their life influenced by their environment compared to the present day?

This prompted the initiation of an extensive, interdisciplinary programme of scientific investigations uti-

lizing the various methodologies of archaeology, ethnography, natural science, and medicine in a stimulating collaboration. An overview of the many different investigations was published in 1985 by the Greenland Museum in a popular book (Hansen *et al.* 1985). The book has appeared in Danish, Greenlandic, Norwegian, and Dutch editions so far. An article on the find and the investigations has also been published in the National Geographic Magazine (Hansen *et al.* 1985).

This volume of the Meddelelser om Grønland, Man & Society series presents the greater part of the scientific results. The chapter by Claus Andreasen, Director of the Greenland Museum, outlines the background of the find and presents the known archaeological facts. The people from Qilakitsoq are representatives of the Thule culture which flourished in Greenland from about the year A.D. 1000. Both firm and fainter traces of houses probably contemporary with the mummies have been found at the site.

The garments have provided us with much new information. Gerda Møller, Curator of the National Museum in Copenhagen, has compiled a comprehensive catalogue. The Eskimo clothing seems to have reached a peak in technical terms as early as the 15th century. It was the best clothing for living, hunting and travelling in the harsh climate of arctic Greenland. The women knew how to use the various types of animal skins available to give the highest degree of insulation while at the same time giving the body the opportunity to release surplus heat and avoid dangerous perspiration. In a way, Eskimo clothing expresses better than many words the experience and adaptability of the Eskimos, acquired through hundreds of years in the Arctic. This catalogue by Gerda Møller documents the garments of the Qilakitsoq mummies and is of value to ethnographers and others interested in arctic clothing. The material is provided with a basic description to facilitate more thorough comparative studies.

The paper by Mogens Bencard, Director of the Royal Collections at Rosenborg Palace in Copenhagen, puts the catalogue of the garments of the mummies in fascinating perspective by giving the first detailed description of a tankard and a cup from the 17th century, made of narwhal tusk, gold and silver, and ornamented with two small enamelled sculptures of Eskimos. The artist most probably had real Greenlandic Eskimos as models – three of the four who were brought from Greenland to Denmark against their will in 1654 by David Danell. Like the famous painting made in Bergen, Norway, in 1654 during the four Greenlanders' journey to Copenhagen, and a drawing published by Adam Olearius in his studies of the same Greenlanders in the new edition of his book *Beschreibung der muscowitischen und persischen Reise* in 1656, the sculptures show garments of exactly the same type as those found with the mummies from Qilakitsoq.

The investigation of the bodies themselves aroused great interest. It was decided from the beginning that the four best preserved bodies were to be preserved with the garments *in situ* for exhibition purposes. These bodies could only be investigated through non-invasive methods like radiographic examinations, although small samples of material were removed for various purposes through a small aperture made in the back. The remaining bodies were not particularly well-preserved, so the garments were removed before conservation. These cases presented the best opportunities for close investigation of preserved internal structures.

A number of papers present most of the investigations carried out on the human remains. Many questions were answered by the investigations but many new turned up.

The results of the investigations cannot be called sensational in any sense. However, the studies led to important interdisciplinary contacts and collaboration. During the work on the mummy find a few important new methods were developed for future investigations on similar ancient material, for example the indirect method of HLA typing mummified tissue (Hanna E. Hansen); the biochemical analyses of small pieces of animal skin, of diagnostic importance for the determination of species (T. Ammitzbøll and co-workers); and the photographic method of revealing tattoos on mummified skin (N. Kromann and co-workers). It must also be mentioned that through work on material from the mummies and supplementary present-day material from Greenland and Denmark Niels Foged was able to reject the importance often claimed for diatoms in the forensic diagnosis of drowning. It emerged that it was only possible to state the cause of death with a certain degree of probability in a few of the cases, possibly because the four best preserved bodies were not available for close examination. It was also impossible to determine with certainty if the deceased persons had died and were buried simultaneously or at intervals.

The involvement of other scientists like botanists, zoologists, and geologists in the investigations has also been of value. For example, the paper by Martin Ghisler, Director of the Greenland Geological Survey, shows us how stones and mineral fragments can give information about the mobility or social contacts of a local group of people within an area, when the necessary background knowledge of geological conditions is available.

One of the most important results of the whole Qilakitsoq investigation is undoubtedly that a 500-year-old body of reference material has been obtained for the evaluation of present and future environmental conditions in Greenland. The papers by P. Grandjean and J. C. Hansen and co-workers particularly stress this point. Their investigations support the supposition that toxic substances are ingested by the Greenlanders today at a much higher level than in the days of the Qilakitsoq mummies, and that important micronutrients are not as abundant in the daily diet as before. It seems that modern technology on the global plane and changes in the

Greenlandic cultural pattern towards the living habits of the modern westernized world may influence the state of health in Greenland in the long run. The Qilakitsoq reference material will be of the greatest value in future evaluations of the environmental impact on the population of the eastern Arctic.

As mentioned previously, the Qilakitsoq investigations have been interdisciplinary involving researchers and scientists within many different branches of cultural history, natural science, and medicine. The work has been stimulating and fruitful thanks to the dedicated and enthusiastic collaborators who nearly all undertook to conduct their investigations within their own financial frameworks. Sincere thanks are due to all collaborators in the investigations, to those who are publishing their results in the present volume, and to everybody who has in other ways participated in the project.

The work on the Qilakitsoq material is not over, however. Quite a few investigations are still being carried out, and new ones have started recently. From the very outset the field of immunological investigations of ancient human remains has been a promising and challenging one. It has, however, taken much time to get such work started. Among ongoing research projects the attempts to isolate human DNA from the mummy material must be mentioned. The researchers and scientists who have participated in the Qilakitsoq investigations are continuing their collaboration with the aim of throwing more light on man and his environment at all times in Greenland. The Qilakitsoq investigations centred on a restricted group of people from one period of time and from one distinct locality in Greenland. The continued and enlarged research project – Man and his Environment in Ancient Greenland – takes all ancient human remains from Greenland into consideration, with the aim of applying modern methods of cultural history, the natural sciences, and medicine to the material. This applies to Eskimo as well as Norse human remains. The first basic step in this work is a comprehensive registration of all human remains from Greenland, mostly skeletons and bones, in museums and institutions in Greenland, Denmark, and abroad in order to create a database and a catalogue combining available anthropological and archaeological information. Economic support for this work has been obtained in the form of a generous grant from the Top Foundation, supplemented by grants from the Qilakitsoq Foundation and the Greenland Home Rule Government.

We would like to end this introduction to this volume of scientific papers on the mummy find from Qilakitsoq by noting that the central part of the permanent exhibition area in the Greenland Museum in Nuuk/Godthåb, Greenland, is dedicated to this find. Here the garments can be studied, and three of the adult mummified women and a child about six months old are displayed.

Finally, we would like to thank Hans Christian Gulløv for his constant enthusiastic and constructive involvement in the realization of the popular book about the mummy find and this present volume, both of which have also benefited from his artistic abilities.

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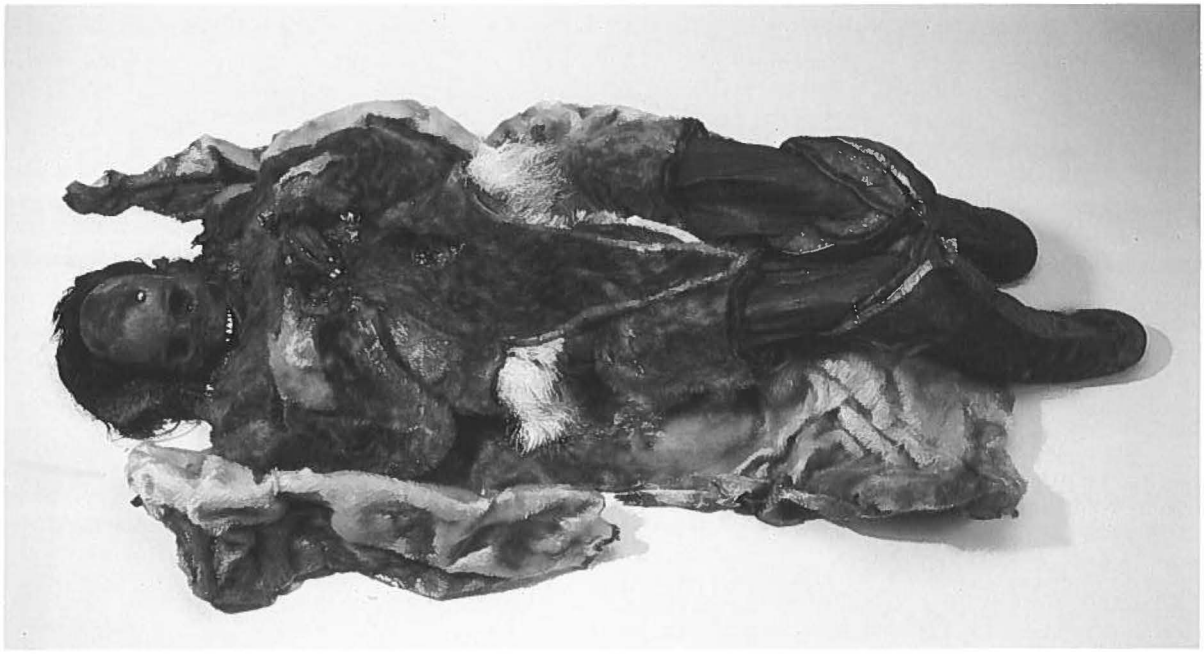
Mummy I/1. Photo: John Lee.



Mummy I/3 Photo: John Lee.

Mummy I/4. Photo: John Lee.