

FOREWORD

In this the eighth issue of *Laborativ Arkeologi*, one of the earliest studies of scientific archaeology – made by the famous chemist Jöns Jacob Berzelius in the 19th century – is thoroughly documented by Chief Librarian Dr Wilhelm Odelberg. Berzelius analysed early items of bronze but his most important achievement in scientific archaeology was that he discredited the manmade nature of the so-called Runamo inscription. This caused a fierce debate engaging famous runologists and antiquarians and to my mind Berzelius' investigation, later also confirmed by the antiquarian authorities, is a master example of the role of scientific examination in archaeology.

Torsten Håkansson, a quaternary geologist, presents a method for studying soil micromorphology. In the near future, I hope this method will become essential when archaeologists study old soil horizons as well as pre-historic agriculture.

Bone chemistry is an important and rapidly expanding aspect of scientific archaeology especially now when DNA analysis stands on our doorstep. Two articles are devoted to bone chemistry, where particularly the results (or rather non-results) obtained by attempted extraction of DNA from bones that had been exposed to X-rays are alarming and important to bring to the notice of bone specialists.

That the impressive and huge East Mound at Old Uppsala most probably was erected to honour an infant prince is a result emerging from a joint work, where the evidence of a tooth still remaining *in situ*, a so-called twelve-years tooth, examined by osteologist Torstein Sjøvold, is of crucial importance.

Ann-Marie Hansson pursues her studies on prehistoric bread, in this case a loaf from Ljunga, where the content appears to be more complex than hitherto suspected.

The art of fur-making in the Viking Period has been elucidated by Torbjörn Ågren who has traced fur remains, using the scanning electron microscope, on penannular silver brooches from Birka.

Two articles are dedicated to medieval Sigtuna. Björn Petterson has worked out and reported on the site stratigraphy where he tried to use the rate of waste accumulation as a dating tool. Lena Holmquist Olausson, who led the excavation in the laboratory of the possible bishop's grave found in Sigtuna, reports on the intriguing find of a silver embroidery.

Gunilla Eriksson has, as in the previous issue, de-

signed this volume and carried out all technical editing, while Uaininn O'Meadhra has been responsible for the English language editing.

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The Archaeological Research Laboratory at Stockholm University was inaugurated in 1975. Conservator **Margaretha Klockhoff** immediately joined our staff on special delegation from the Technical Department of the Central Board of National Antiquities, and has carried out extensive highly successful and skillful conservation work, especially of metal items.

We dedicate this issue of *Laborativ Arkeologi* to Margaretha Klockhoff. Her conservation work has gained great respect among archaeologists. The reason for this is not only her great energy that has resulted in a vast amount of conserved metal items from the Bronze Age to medieval times. But what has specially won the general admiration is the grand effort she has put into finding the original surfaces of these metal items and thus tracing toolmarks, engravings and previously undetected runic inscriptions. In her work she has consistently maintained close contact with the excavators of the items in the field and many excavators as well as curators from different museums have come into the laboratory to learn her results and consult her about their items.

Margaretha Klockhoff's skill in this field was amply demonstrated when she undertook the great task of conserving the numerous Bronze Age shields found at Frösunda in Västergötland. Her work in this connection has won general recognition even outside the academic world and we all began to recognize how excellent Margaretha Klockhoff is as a massmedia communicator.

Massmedia star or not, she has never lost her sense of humour and open view on the many idiosyncrasies of life. In this way we all like to meet her in the day-to-day work of the laboratory and she has acted as a godmother to many a young student finding life and work hard to cope with. Although she has never officially had the position of teacher, she has in her personal way taught archaeologists the importance of their findings and the joys of archaeological work.

Although she will now withdraw from her position at the Central Board of National Antiquities, we expect to have her in our laboratory for many years still and to enjoy her skill and keen interest in archaeological conservation for a long time over.

Stockholm in June 1995

Birgit Arrhenius
Editor-in-chief