

FERENC GYULAI

**ENVIRONMENT AND AGRICULTURE
IN BRONZE AGE HUNGARY**



BUDAPEST 1993

ARCHAEOLINGUA

is a Publication Series jointly edited by the
Archaeological Institute of the Hungarian Academy of Sciences
and the Linguistic Institute of the University of Innsbruck

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The Cover Photograph shows the Tell-Settlement
from Tószeg – Laposhalom, excavated by I. Bóna and I. Stanczik

ISBN 963 7391 66 5

HU-ISSN 1216-6847

1993

ARCHAEOLINGUA ALAPÍTVÁNY

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H-1250 Budapest, Úri utca 49

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Printed by AKAPRINT, Budapest

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Environment and Agriculture in Bronze Age Hungary

Foreword

In recent decades, interdisciplinary cooperation between various subject areas has produced new results in archaeology, too.

Scientific methods (archaeozoology, archaeobotany, geology and a number of archaeometric procedures) applied during the course of archaeological excavations increase the amount of information and facilitate our understanding of the way of life pursued in ancient cultures. They also provide an opportunity for reconstructing the former environment of the excavated settlements.

Archaeobotany (frequently referred to as palaeoethnobotany) is a discipline based on the identification or at least stochastic classification of botanical finds and plant products. It also investigates the domestication of plants and their occasional reversion to the wild state (e.g. plums). In addition, archaeobotany evaluates pictorial representations of plants and utilizes data on plants gathered by various branches of natural sciences. The main study areas of archaeobotany are agricultural and vegetation history. It investigates the connection between humans and the plant world; man's agricultural and economic activities. Important research areas in archaeobotany include the identification of remains from cultivated plants, the investigation of the process by which wild species became cultivated plants, and the distributions of plant cultivation and agriculture. Due to their special physiological requirements, the distribution of cultivated plants resulted in the gradual transformation of the natural environment.

Within the context of cultural environment, the multi-faceted interaction between flora and fauna (especially domestic plants and animals), is one of the more evident examples of such complex relationships. Animal production is directly dependent on the plants available for fodder, and has a feedback effect on cultivation in a variety of ways. Some unintentional effects may include overgrazing, trampling, deforestation, crop damage (even by wild animals) as well as the dispersal of various seeds. Human actions which affect

animals and plant cultivation include growing and/or collection of fodder, the use of animals to till the land and in agricultural transport as well as spreading manure to fertilize fields in the later historical periods (Choyke, personal communication).

Archaeologists, however, can follow such environmental processes only using the comprehensive results of complex scientific studies that contribute to the methodology of environmental archaeology.

Archaeobotany is also a sub-discipline in botany. All the basic elements of botany (morphology, systematics, anatomy and geobotany) are applied in the analysis of samples brought to light during the course of archaeological excavations. At the same time archaeobotany, being closely linked with archaeology, bridges a gap between the natural and economic/social sciences.

The increasing cooperation between archaeologists and botanists which took place in Western Europe during the past decade led to the establishment of numerous archaeobotanical institutes. In recent years, archaeobotanists are invited to participate in all major excavations even in Hungary. Archaeobotany has become a subject option for archaeology students. The aim of this instruction is to provide future archaeologists with an ecological perspective, familiarize them with the potentials of archaeobotany and, above all, teach them to recognize plant remains brought to light during field work. Be it a seed or the remains of a fruit, each and every plant represents a specific ecological spectrum and thus is a potential source of considerable information. Consequently, these remains must be treated as "artefacts".