

Cambridge University Press  
978-0-521-11588-9 - Archaeological Method  
Evzen Neustupny  
Frontmatter  
[More information](#)

---

The archaeological record consists of 'dead' finds, remnants of human culture. The archaeologist relies on them to understand how past societies were organized and how they functioned. This book, by the distinguished Czech scholar Evžen Neustupný, considers the archaeological method, the way in which archaeologists translate mute objects into descriptions of a living past. The method involves a series of steps: an analysis of the archaeological record; a synthesis of the finds to generate formal archaeological structure; and the use of models derived from descriptions of observed human activity to explain these structures. Without models, archaeologists would have no way of interpreting their finds. The author also considers the relevance of archaeology of such concepts as induction and deduction, empirical research and theory.

Cambridge University Press  
978-0-521-11588-9 - Archaeological Method  
Evzen Neustupny  
Frontmatter  
[More information](#)

---

## Archaeological method

Cambridge University Press  
978-0-521-11588-9 - Archaeological Method  
Evzen Neustupny  
Frontmatter  
[More information](#)

---

# *Archaeological method*

---

EVŽEN NEUSTUPNÝ

*Czechoslovak Academy of Sciences*



Cambridge University Press  
978-0-521-11588-9 - Archaeological Method  
Evzen Neustupny  
Frontmatter  
[More information](#)

---

CAMBRIDGE UNIVERSITY PRESS  
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore, São Paulo, Delhi

Cambridge University Press  
The Edinburgh Building, Cambridge CB2 8RU, UK

Published in the United States of America by Cambridge University Press, New York

[www.cambridge.org](http://www.cambridge.org)  
Information on this title: [www.cambridge.org/9780521115889](http://www.cambridge.org/9780521115889)

© Cambridge University Press 1993

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 1993  
This digitally printed version 2009

*A catalogue record for this publication is available from the British Library*

*Library of Congress Cataloguing in Publication data*

Neustupný, Evžen.  
Archaeological method / Evžen Neustupný.  
p cm.  
Includes bibliographical references.  
ISBN 0 521 38076 6  
I. Archaeology – Methodology. I. Title.  
CC75.N47 1993  
930.1' – dc20 92–1711–CIP

ISBN 978-0-521-38076-8 hardback  
ISBN 978-0-521-11588-9 paperback

## Contents

---

	<i>List of tables</i>	page viii
	<i>Preface</i>	ix
1	Notes on archaeology, its theory and method	1
2	Prerequisites of the archaeological method	20
3	Genesis of the archaeological record	44
4	Archaeological analysis	73
5	Archaeological synthesis	113
6	Interpretation	154
	<i>Bibliography</i>	181
	<i>Index</i>	184

## Tables

---

3.1	Changes occurring in a simulated population of archaeological types after fifty years	<i>page 66</i>
3.2	Changes occurring in a simulated population of archaeological types after fifty years	66
4.1	A system of analytical units	77
5.1	An example of the 'factor' matrix (unrotated principal factor solution)	140
5.2	Jenišův Újezd, list of descriptors	142
5.3	Jenišův Újezd, a part of the description matrix	143
5.4	Jenišův Újezd, the first ten latent roots	144
5.5	Jenišův Újezd, loadings on factor 1	145
5.6	Jenišův Újezd, loadings on factor 2	145
5.7	Jenišův Újezd, loadings on factor 3	146
5.8	Jenišův Újezd, loadings on factor 4	147
5.9	Jenišův Újezd, loadings on factor 5	147
5.10	Jenišův Újezd, a part of the matrix of factors scores	148

## *Preface*

---

No progress in archaeology can be achieved by simply accumulating finds. The strategy of excavating in the hope that one day finds may begin to speak simply does not work. This is one of the reasons why so many archaeologists have recently become interested in theoretical and methodological problems. The main reason, however, is that the intellectual atmosphere in our modern society is changing under the influence of rapidly developing technology and social relations.

Changed attitudes have led to the need for a new paradigm in archaeology which has been built in the last twenty or thirty years. It should not be disquieting that results come slowly; I consider this to be a rather normal phenomenon as the principal building phase may still lie before us. Anyway, the angle from which the new generation entering archaeology at the beginning of the 1990s looks at the discipline has changed enormously. This is particularly conspicuous for someone who, like myself, has been brought up in times when the concepts of typology, diffusion and migrations represented the principal methodological and theoretical pillars of archaeology.

Despite the fact that most of my early papers dealt with specific archaeological problems quite acceptable within the traditional paradigms, my interest in methodology and theory began very early (E. Neustupný 1958). I formulated my methodological views as a whole for the first time in my dissertation in 1964 (published in Neustupný 1967, English summary p. 68) and later in my contribution to the 'Whither archaeology?' series in the British journal *Antiquity* (Neustupný 1971, written in 1968). Many of the concepts discussed

in this book have been at least mentioned there (transformations, the use of modelling, the necessity of synthesizing archaeological structures, etc.). In later years I have mainly experimented with problems of analysis and synthesis of structures (Neustupný 1973a, 1978 etc.).

In 1983 I wrote a book on archaeological method whose contents and main ideas were similar to those presented here. The manuscript in Czech, destined for the general reader, has never seen the light of day because the publishers asked for changes that would turn it into a handbook on 'discovering archaeological treasures' (something which I have always disliked). A very short summary of the manuscript appeared later in the journal *Archeologické Rozhledy* (Neustupný 1986). I would almost have given up hope that my views would ever appear in book form were it not for Colin Renfrew's proposal that it should be published by Cambridge University Press. Although my principal theses have not changed, I have rewritten the book completely, leaving out whole chapters, rearranging others, and reacting to new ideas.

Living in isolation from the main centres of archaeological thinking in North America and Britain in the sixties I developed a different approach, some aspects of which have been described elsewhere (Neustupný 1991). I was influenced by the economic teaching of Karl Marx, mediating for me the earlier philosophers. G. W. F. Hegel may have left the greatest impact on my epistemology, mainly through his dialectics and logics. Systems theory and 'cybernetics' were equally inspiring in the formation of my early methodological views. And, of course, I have known the work of F. de Saussure since the fifties. This is certainly not a complete list of what I studied before approaching archaeological theory and method; what may appear striking, however, is the fact that this list does not contain any archaeological writings. This is not so much because of its brevity as because I did not find too much inspiration in this field. However, I should perhaps mention at least Montelius' chapters (1903) describing the typological method, still to be admired. Malmer's book (1962), representing the peak of the typological paradigm but nevertheless stimulating, arrived too late to influence me.

When I became aware of the so-called New Archaeology at



the end of the sixties, I immediately recognized its closeness to my own approach. There was no identity of views but I was convinced that something very important was being introduced into archaeology. In some respects I did not object to being influenced but, on the whole, I retained my original position. I admired Binford, David Clarke, Renfrew, Gardin and Schiffer (to name a few) for their ability to formulate new ideas and keep them within a system. I feel that Ian Hodder has enriched the concept of archaeology by putting stress on what I shall describe as the significance of facts. Some of the authors named in this paragraph might object to being included among the New Archaeologists, and in fact I also dislike the term. I believe, however, that the stream of archaeological thinking which leads from the sixties to the nineties cannot be divided into several paradigms.

The yearly increase in literature dealing with problems of archaeological theory and method is so great that it becomes difficult to keep abreast of all new contributions. At the same time almost all imaginable propositions have already been discussed and this makes it difficult for any author to be original on many points: almost all solutions have already been proposed. Originality is still feasible as far as a whole coherent system of ideas is concerned. This is, I believe, the sense in which this book may claim to be original. Its principal ideas will be summarized in the following paragraphs.

Various transformations turned once-living human culture into dead archaeological facts, reducing the information contained in those facts so drastically that the archaeological record consists of static, formal, object-orientated things with no observable function, meaning and significance. As a result, it is impossible to explain the archaeological record exclusively in its own terms: it is necessary to use models derived from contexts of human activity which are either directly observable in their live form or available in descriptions in some understandable (natural) language. The models, however, cannot be applied to raw data: it is essential to pass through the steps of analysis and synthesis. The latter produces (formal) archaeological structures which are compared to the models. In this way, explanation is achieved. The models should be used in several phases of the archaeological method, starting

with description, which leads to the conception of the method as an endless iterative procedure asymptotically approximating the human past.

The volume consists of six chapters. Chapter 1 discusses the concept of archaeology and several other *preparatory concepts* which usually appear in pairs: archaeological means and objects, theory and method, induction and deduction, empirical and theoretical research, things and structures, and the role of mathematics in archaeology. The aim of this chapter is not a systematic treatment of the subject, but simply to explain the sense in which some of the general notions are used in the book.

Chapter 2 is concerned with two major prerequisites of the archaeological method: *archaeological records and paradigms*. Both must be present if the method is to operate. While the record is treated systematically (divided into artifacts, ecofacts and natural facts), the analysis of paradigms is orientated historically: the old 'traditional' paradigm is characterized in some detail.

Chapter 3 describes various kinds of processes which have *transformed* the past living culture into the archaeological record. Attention is paid to the exit transformation, to destruction and spatial replacement, as well as to the quantitative aspects of the process. The properties of the archaeological record resulting from transformations (lack of dynamics, loss of function, meaning and significance) become the starting point of the whole archaeological method, which can be conceived as a series of inverse transformations.

Chapter 4 discusses *analysis*, which is a decomposition (both physical during excavations and mental subsequently) of the record into various kinds of elements; the analysis results in description. This methodological step requires assumptions about the function, meaning and significance of the record which are necessarily 'imported' from models formed outside archaeology. At the same time, analysis produces elements which are devoid of function, meaning and significance and can be conceived as formal observable entities and qualities.

Chapter 5 describes a stage of the archaeological method which often remains undistinguished as an independent methodological procedure. The record decomposed in the

phase of analysis must be synthesized again, this time on a higher level of abstraction. The products of *archaeological synthesis* are formal regularities in the record which are termed archaeological structures (traditional types or phases can serve as examples of structures in this sense).

Chapter 6 discusses how *archaeological structures*, which are dead formal entities, are given meaning in terms of a dynamic social and cultural system. The chief method used to accomplish this is modelling; rules for the generation and use of models are given. Models successfully compared to the archaeological structures generate a theory which can be used to start a new iteration of the whole of archaeological method.

As seen from the preceding paragraphs, my conception of the archaeological method does not include the technical tools (such as radiocarbon or geophysical prospecting) which are often identified with the theme. The purpose of this book is to demonstrate that archaeological methodology is a much broader issue; in spite of this, it differs from archaeological theory (cf. section 1.2).

The generality with which I am trying to cover the field has prevented me from discussing the existing literature at any substantial length. Attempting to refer to many (if not most) colleagues writing on the subject in recent years would not be realistic, bearing in mind the enormous quantity of literature in languages other than English. Since I do not claim originality in the case of most of the specific theses, I feel I can be excused for not including a more detailed bibliography.

In recent years, archaeology has become increasingly attractive to the general public. One of the reasons for this phenomenon is undoubtedly the fact that it has no elaborate terminology: the reading of reports on archaeological discoveries may not be always a thrilling experience but, in general, even fairly specialized papers are comprehensible to everybody. Our discipline is one of the last sciences which are still readable for a non-specialist. Only a few of the theoretical currents of the last twenty or thirty years deviated from this picture.

Should archaeology be proud of being understandable to everybody? Democratic science is certainly not expected to indulge in esoteric verbal rituals but I still believe that the

Cambridge University Press  
978-0-521-11588-9 - Archaeological Method  
Evzen Neustupny  
Frontmatter  
[More information](#)

---

*xiv Preface*

---

present-day understandability of archaeology is more or less a consequence of its theoretical and methodological weakness. This is obvious from the fact that archaeological concepts rarely form chains in which the next link depends on the preceding one. However, the happy situation of being understood by everybody cannot go on for ever, because the reality which archaeology studies is not simple: complex relations cannot be described by means of simple terms. It is my conviction that archaeological terminology will become much more complicated in the near future and, as a result, the discipline will enter the club of sciences which are not altogether easy for outsiders to follow.

Any scientific theory has to work with precise concepts which by their very nature cannot coincide with the concepts of everyday life. No doubt the scientific language of individual disciplines will converge in the future forming a kind of theoretical and methodological *koine*. At present, however, every science has to care for its own terminology independently.

The problem of terminology cannot be conceived as being simply a question of choosing the right word; scientific terminology is not a linguistic problem. No word is 'right' in the case of a new concept which does not coincide with any concept of our everyday experience. The meanings of a set of words such as 'quality', 'trait', 'attribute' and 'property' are very close to each other in everyday speech (they are almost synonyms), yet they are used to denote different concepts in this volume. There are very few 'uncommitted' terms because the number of words of the natural language is limited, and an excessive use of Latin or Greek words makes the scientific language unpleasant even for its creators.

What I consider important is that the existing terminology and everyday usage of vocabulary should be retained wherever possible. I apologize for not having been entirely successful in realizing this point in practice. Feeling that it is the concepts that matter, I do not insist upon any of the special terms used in this book.

I dedicate the present volume to the memory of my father Jiří Neustupný, who was a strong and positive influence during

the early days of my archaeological career by his deep interest in archaeological theory and method.

### **Acknowledgements**

My first attempt at explaining my views on archaeological methodology was read and commented upon by Luboš Peške and my wife Ludmila. A number of valuable comments on the typescript of this volume were supplied by Martin Kuna and some by my brother Jiří. As I did not follow all their suggestions, the responsibility remains only with those passages that gained through their intervention.

I have been greatly influenced, one way or another, by my Czechoslovak colleagues, with whom I shared the same archaeological community for so many years. The analysis of their writings has become a source of my inspiration.