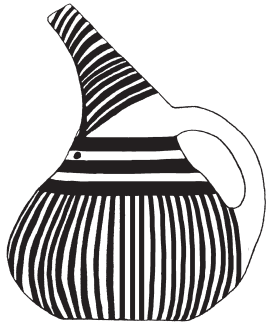
THE BRONZE AGE BEGINS

The Ceramics Revolution of Early Minoan I and the New Forms of Wealth that Transformed Prehistoric Society



Frontispiece. Pithos holding 165 kg with decoration of applied clay moldings. From Early Minoan I, from Aphrodite's Kephali (photograph by Chronis Papanikolopoulos).

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The Ceramics Revolution of Early Minoan I and the New Forms of Wealth that Transformed Prehistoric Society

by

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Published by
INSTAP Academic Press
Philadelphia, PA
2008

Design and Production
INSTAP Academic Press

Printing
CRWGraphics, Pennsauken, New Jersey

Binding
McCormick's Bindery, Inc., Pennsauken, New Jersey

Library of Congress Cataloging-in-Publication Data

Betancourt, Philip P., 1936–
The Bronze Age begins : the ceramics revolution of early Minoan I and the new forms of wealth that transformed prehistoric society / by Philip P. Betancourt.
p. cm.
Includes bibliographical references and index.
ISBN 978-1-931534-52-9 (pbk.)
1. Pottery, Minoan—Greece—Crete. 2. Ceramics—Greece—Crete—History. 3. Crete (Greece)—Antiquities. 4. Bronze age—Greece—Crete. 5. Wealth—Social aspects—Greece—Crete—History—To 1500. 6. Social change—Greece—Crete—History—To 1500. 7. Crete (Greece)—Social conditions. 8. Crete (Greece)—Economic conditions. I. Title.
DF221.C8B54 2008
939'.1801—dc22

2009006204

The transition from the Neolithic to the Minoan Bronze Age is defined in terms of radical changes in pottery fashions.

Sinclair Hood, *The Minoans*
1971

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Preface

This is a book about economic and social changes and how they occur. Its focus is the opening phase of the Minoan "civilization" on the island of Crete, which is a useful venue for examining such cultural transformations, because we have a considerable amount of evidence for this early phase in human history. The conclusion is that new developments in ceramics that reached Crete at the end of the Neolithic period acted as the final piece in a set of complex factors that were already converging to create the economic, technological, social, and religious advancements we call the Early Bronze Age. The arguments are set out in two parts, a detailed explanation of the ceramics we call Early Minoan I and the differences that set it apart from its predecessors, and an explanation of how these new and highly superior containers changed the storage, transport, and accumulation of a new form of wealth consisting primarily of agricultural and animal products. The increased stability and security provided by an improved ability to store food from one year to the next would have a profound effect on the society.

The book is dedicated to the many graduate students who undertook pottery projects in my courses at Temple University's Tyler School of Art suburban campus. Between 1970 when I began teaching at the university and 2008 when the campus moved into its new building in Philadelphia, I offered a seminar where graduate students had an opportunity to experiment with ancient technology. In addition to making faience, building warp-weighted looms, working on various metals techniques, and other possibilities, the students could undertake various ceramics projects including building a wood-burning kiln. The kilns were especially successful vehicles for understanding more about ancient pyrotechnology, and students learned the subtle differences in construction design that can affect

the resulting effectiveness of the firing. Some of the projects resulted in publications (Betancourt et al. 1979; Betancourt, Berkowitz, and Zaslow 1990; Gosser and Sapareto 1984), while others were simply presented as seminar papers. All of the projects led to a better appreciation of ancient technology by the instructor as well as the students.

Acknowledgments

Many people deserve thanks for the information presented here. Much of the research was conducted in connection with excavations supported by Temple University and the Institute for Aegean Prehistory, both located in Philadelphia, Pennsylvania. I am grateful to my colleagues Peter Warren and Robert Koehl for reading early versions of this book and offering several useful suggestions. Some of the most helpful ideas were developed in connection with the study of Hagia Photia Siteias, in collaboration with my good friend Costis Davaras, and Aphrodite's Kephali, for which thanks are expressed to Theodore Eliopoulos and Stavroula Apostolakou for permission to publish this site and its pottery. I am grateful to Yannis Tzedakis and Maria Vlasaki for the images and information about vases from West Crete.

The illustrations come from sources that are cited in the captions. Drawings and photographs without credits are by the author.

Abbreviations

Abbreviations of journals not listed here follow the conventions used by the *American Journal of Archaeology* 111.1 (2007), pp. 14–34.

AK	Aphrodite's Kephali
C	Celcius
Chania	Chania, Archaeological Museum
ca.	approximately
cm	centimeter
dia.	diameter
EC	Early Cycladic
EM	Early Minoan
FN	Final Neolithic
gr	gram(s)
HCH	Hagios Charalambos Cave
HM	Herakleion, Archaeological Museum
HNM	Hagios Nikolaos, Archaeological Museum
ht.	height
INSTAP-SCEC	INSTAP Study Center for East Crete, Pacheia Ammos, Crete
km	kilometers
KrChron	*Kritika Chronika*
LM	Late Minoan
m	meters
mm	millimeters
MM	Middle Minoan
PAR	Pacheia Ammos Rock Shelter

pers. comm.	personal communication
PS	Pseira
SEM	Scanning Electron Microscopy