



THE POLITICS OF STORAGE

Storage and Sociopolitical Complexity
in Neopalatial Crete



Frontispiece. Interior of an abandoned house in East Crete (photograph by Christos Beltes).

PREHISTORY MONOGRAPHS 25



THE POLITICS OF STORAGE

Storage and Sociopolitical Complexity
in Neopalatial Crete

by

Kostandinos S. Christakis



Published by
INSTAP Academic Press
Philadelphia, Pennsylvania
2008

Design and Production
INSTAP Academic Press

Printing

CRWGraphics, Pennsauken, New Jersey

Binding

Hoster Bindery, Inc., Ivyland, Pennsylvania

FPO

FSC

Library of Congress Cataloging-in-Publication Data

Christakis, Kostandinos S., 1966-

The politics of storage : storage and sociopolitical complexity in neopalatial Crete / by Kostandinos S. Christakis.

p. cm. — (Prehistory monographs ; 25)

Includes bibliographical references and index.

ISBN 978-1-931534-50-5 (hardcover : alk. paper)

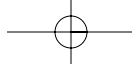
1. Crete (Greece) —Antiquities. 2. Crete (Greece) —Politics and government. 3. Crete (Greece) —Social conditions. 4. Pottery, Minoan—Greece—Crete. 5. Storage jars—Greece—Crete. I. Title. II. Title: Storage and sociopolitical complexity in neopalatial Crete.

DF221.C8C48 2008

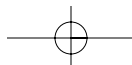
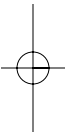
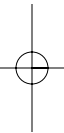
939'.1801—dc22

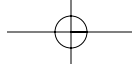
2008048269

Copyright © 2008
INSTAP Academic Press
Philadelphia, Pennsylvania
All rights reserved
Printed in the United States of America



To the memory of my beloved
Ió





BLANK

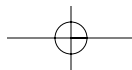
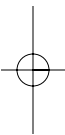
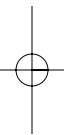




Table of Contents

LIST OF TABLESix

LIST OF FIGURESxi

PREFACE AND ACKNOWLEDGMENTSxiii

ABBREVIATIONSxvii

INTRODUCTION1

CHAPTER 1. From Storage Implements to Subsistence Autarkies: A Framework for Interpreting
the Archaeological Record9

CHAPTER 2. Palatial Storage Practices39

CHAPTER 3. Domestic and Nonpalatial Elite Storerooms55

CHAPTER 4. Storage Behaviors and Subsistence Autarkies in the Nonpalatial Sector
of LM I Societies109

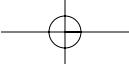
CHAPTER 5. Storage and Sociopolitical Dynamics in LM I State Societies119

BIBLIOGRAPHY149

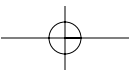
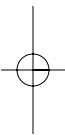
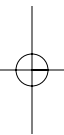
INDEX175

TABLES

FIGURES



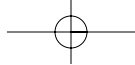
BLANK



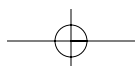
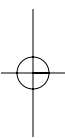
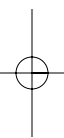


List of Tables

1. Nutritional values of cereals, pulses, olive oil, and wine.
2. Minimum and maximum sowing and yield rates of cereals from various regions of Greece in 1860.
3. Minimum and maximum yield rates of cereals from various regions of Greece in 1887.
4. Minimum and maximum yield rates of pulses from various regions of Greece in 1887.
5. Minimum and maximum yield rates of vines and olives from various regions of Greece in 1860 and 1887.
6. Minimum and maximum yield rates from various regions of Greece in 1860 and 1887.
7. Yields of barley, lentils, olive oil, and wine used in the present study.
8. Estimated storeroom size (in m²) in Neopalatial palaces.
9. Comparison of the number of pithoi that palatial stores were designed to house compared with the number of pithoi found in the palaces.
10. Storage potentials of LM I domestic and nonpalatial elite units.



BLANK





List of Figures

Figures are drawn by Nikoletta Ntolia.

1. Principal Neopalatial sites mentioned in the text.
2. Pithoi from LM I contexts: Forms 12, 15, 70, 62, 11, and 14 (scale 1:10).
3. Pithoi from LM I contexts: Forms 16, 95, 17, 94, 61, and 13 (scale 1:10).
4. Pithoi from LM I contexts: Forms 6, 1, 28, 23, and 4 (scale 1:10).
5. Pithoi from LM I contexts: Forms 85, 88, 87, 55, 54, and 89 (scale 1:10).
6. Pithoi from LM I contexts: Forms 18, 60, 79, 5, 77, 80, and 47 (scale 1:10).
7. Pithoi from LM I contexts: Forms 97, 35, 82, 122, 64, and 83 (scale 1:10).
8. Pithoi from LM I contexts: Forms 73, 74, 67, 76, 63, 53, 72, and 60 (scale 1:10).
9. Pithoi from LM I contexts: Forms 114, 112, 121, 106, 107, 109, and 102 (scale 1:10).
10. Storerooms in the palace and in the Northeast House of Knossos.
11. Pottery from below the floor of the Magazine of the Medallion Pithoi.
12. Pottery from Knossos.
13. Distribution of storerooms and remains of staples in the palace of Phaistos.
14. Distribution of storerooms and remains of staples in the palace of Malia.
15. Ceremonial areas and storerooms in the East Wing of the palace at Galatas.

LIST OF FIGURES

xii

16. Distribution of storerooms in the palace of Gournia.
17. Distribution of storerooms and administrative documents in the palace of Petras.
18. Distribution of storerooms and administrative documents in the palace of Kato Zakros.
19. Distribution of storerooms, remains of staples, and administrative documents: a) House I at Chania-Kastelli; b) the mansion of Sklavokambos.
20. Distribution of storerooms, areas for food preparation, and administrative documents in Mansions A, B, and C at Tylissos.
21. Distribution of storerooms, remains of staples, and administrative documents in the *Villa Reale* at Hagia Triada.
22. Distribution of storerooms, remains of staples, and administrative documents at Hagia Triada: a) *Casa del Lebete/Casa delle Sfere Fittili o dei Muri di Creta*; b) *Casa Est*.
23. Distribution of storerooms and remains of staples in the mansion at Mitropolis-Kannia.
24. Distribution of storerooms at Knossos: a) the South House; b) the House of the Chancel Screen; c) the Royal Villa at Knossos.
25. Spaces designed for storage in the Unexplored Mansion and the Little Palace at Knossos.
26. Distribution of storerooms and remains of staples in the mansion at Nirou Chani.
27. Distribution of storerooms, remains of staples, and wine tubs at Malia: a) House Δα; b) House Ζα; c) House Ζβ; d) House of Hagia Varvara.
28. Distribution of storerooms, remains of staples, and administrative documents: a) the mansion of Myrtos Pyrgos; b) the complex at Makrigialos.
29. Storage in the houses of the town of Gournia.
30. Distribution of storerooms, areas for the processing of staples, administrative documents, and remains of staples at Gournia: a) House Αc; b) House Cf; c) House Ec; d) House Fd; e) House Fe.
31. Distribution of storerooms in Building B.2 and House C.3 at Mochlos.
32. Distribution of storeroom and areas for food preparation and staple processing: a) the mansion at Klimataria-Manares; b) House A at Achladia; c) the mansion at Tourtouloi-Prophetes Elias.
33. Distribution of storerooms, remains of staples, and administrative documents at Palaikastro: a) House B; b) House 1–17; c) House N.
34. Distribution of storerooms and areas used for staple processing at Kato Zakros: a) House A; b) House B.
35. Distribution of storerooms and remains of staples at Kato Zakros: a) House Δα; b) Hogarth's House G; c) the Strong Building; d) the House of the Niches.
36. Distribution of storerooms, areas used for staple processing, and remains of staples at Kato Zakros: a) House Δ; b) House F; c) Hogarth's House I(J); d) House N.



Preface and Acknowledgments

The storage of staples and its importance for the functioning of Cretan Bronze Age society has become an active topic of discussion and debate in the last decades. Many are the proposed narratives of sociopolitical development based on the accumulation and storage of wealth. Most approaches have been focused on the storage strategies adopted by palatial authorities and groups controlling second-order centers. The present study reassesses the intrinsic relationship between storage and sociopolitical complexity by combining testimonies on the storage of staples from palatial, nonpalatial elite, and ordinary domestic contexts dated to the LM I period. It adopts a bottom-up perspective, mostly focusing on the nonpalatial sector of LM I state societies. The main goals are:

1. To take a new look at a wide range of information concerned with the storage of staples
2. To develop a more comprehensive model to explain how storage strategies operate within LM I societies
3. To infer sociopolitical and socio-economic levels of interaction among the different social sectors operating within LM I societies (mainly LM IB societies)

Some individual arguments have already been presented elsewhere (Christakis 1999a, 1999b, 2003, 2004, 2005, 2006a, 2006b). Here, the results of additional and continuing research are offered. The main arguments have not changed substantially; some are developed further, while others are clarified.

The methodological framework used here is outlined in the first chapter of the monograph. The testimonies concerned with storage activities from LM I contexts

have been reconsidered in great detail in the second and third chapters. The second chapter discusses storage activities in the palatial sector of societal organization. The third chapter discusses testimonies from nonpalatial elite contexts and simple domestic units of palatial and nonpalatial settlements. Chapter 4 offers a synthesis of data on staple storage from domestic contexts and an evaluation of the testimonies—in terms of subsistence autarky—of the resident households. The implications of storage for the political and economic organization of LM I state societies are discussed in the concluding part of this monograph.

Figures 2–9 show the most frequently used storage containers (generally known as pithoi) from LM I palatial, nonpalatial elite, and domestic contexts. The number allocated to each pithos form follows the classification of such storage containers established in my study on Cretan Bronze Age pithoi (Christakis 2005). The numbering of pithos forms established in this study is also followed in the case of forms mentioned in the text without being illustrated in Figures 2–9. Figures 10 and 13–36 show the palaces, nonpalatial elite complexes, and simple domestic units relevant to the present discussion. The plans used are simplified versions of the state plans included in the original publication of the complexes. For bibliographic references to the original state plans, the reader may refer to the publications mentioned in the text. In order not to confuse readers familiar with the contexts discussed here, I have retained the numbering of the various spaces as given in the original publications. Keys were used, in palace and house plans, to indicate the spatial distribution of storerooms (defined as such on the basis of architectural layout and/or artifactual assemblages), ceremonial spaces, spaces used for food preparation and/or consumption, areas used for staple processing, organic remains, administrative documents (tablets, nodules, roundels, and sealings), large and small/medium-sized pithoi, and small storage containers. These illustrations do not attempt to represent every activity practiced or artifact found in the palace/house but only those relevant to the present discussion. The artifacts shown are simplified symbols; see the text for more complete descriptions of artifactual assemblages. Symbols are not to scale. Drawings of pithoi, pottery, and palace/house plans were drawn by Nikoletta Ntolia, to whom I would like to express my deepest thanks.

The discussion is based on the study of both published and unpublished data. Many institutions and excavators gave me permission to look at their material. I would like to thank the Council of the British School at Athens for permission to study and publish the pithoi and selected pottery assemblages excavated by Sir Arthur Evans at Knossos. I would also like to thank the Greek Ministry of Culture, the Archaeological Society at Athens, the Scuola Archaeologica Italiana di Atene, the American School of Classical Studies at Athens, the École Française d'Athènes, I. Andonakaki, C. Davaras, N. Dimopoulou, B. Hallager, E. Hallager, D. Hatzivallianou, S. Hood, A. Karetsou, V. La Rosa, A. Lebessi, A. MacGillivray, S. Mandalaki, the late N. Platon and M. Popham, L. Platon, G. Rethemiotakis, H. Sackett, J. Soles, M. Tsipopoulou, Y. Tzedakis, A. Vasilakis, P. Warren, and A. Zois.

A special debt of thanks is due to the Institute for Aegean Prehistory (INSTAP) for the generous support that helped me to cover many expenses. Thanks are also due to the staff of INSTAP Academic Press, particularly to A. Pearce for her work on many figures and S. Ferrence for her faith in the final outcome.

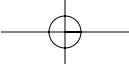
This book has been many years in the making, and I have incurred many debts. My gratitude is due to P. Warren for comments and seminal discussions that helped me to sharpen my approach. Under the guidance of the late S. Spanakis and also N. Panagiotakis, I began my journey to Venetian and Ottoman Crete, a journey that

THE POLITICS OF STORAGE

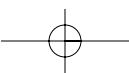
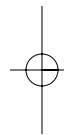
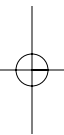
xv

opened new horizons. I am grateful to P. Betancourt, G. Rethemiotakis, J. Rutter, and M. Wiener for fruitful discussions on earlier versions of this book. I have benefited greatly from discussing aspects of this research with K. Archondaki, K. Athanasaki, E. Apostolaki, the late C. Beedel, P. Betancourt, K. Branigan, T. Brogan, D. Evely, E. Gerontakou, P. Halstead, E. Hatzaki, S. Hood, V. Isaakidou, D. Kriga, A. Lebessi, C. Macdonald, N. Momigliano, I. Nikolakopoulou, M. Panagiotaki, N. Panagiotakis, L. Platon, A. Sarpaki, M. Schultz, J. Soles, the late S. Spiliotopoulos, and M. Tsipopoulou. As always, none of those mentioned above should be held accountable for any deficiencies or obscurities in this study.

Herakleion, January 2007



BLANK





Abbreviations

AE/NB	Evans, A.J. <i>Manuscript Daybooks on the Excavations at Knossos</i> , Knossos Archives, Ashmolean Museum, Oxford.
ca.	circa
cal.	calories
cm	centimeter
DM/NB	Mackenzie, D. <i>Manuscript Daybooks on the Excavations at Knossos</i> , Knossos Archives, Ashmolean Museum, Oxford.
EM	Early Minoan
F/NB	Fyfe, T. <i>Manuscript Notebooks (Sketchbooks) on the Excavations at Knossos</i> , Knossos Archives, Ashmolean Museum, Oxford.
g	grams
HB/NB	Boyd, H.A. <i>Notebooks from the 1904 Excavations at Gournia, Crete</i> , Archives of the University of Pennsylvania Museum, Philadelphia.
HM	Archaeological Museum of Herakleion
kg	kilograms
KSM	Knossos Stratigraphical Museum
LM	Late Minoan
m	meter

ABBREVIATIONS

xviii

MM	Middle Minoan
<i>PM I</i>	Evans, A.J. 1921. <i>The Palace of Minos at Knossos I</i> , London.
<i>PM II</i>	Evans, A.J. 1928. <i>The Palace of Minos at Knossos II</i> , London.
<i>PM III</i>	Evans, A.J. 1930. <i>The Palace of Minos at Knossos III</i> , London.
<i>PM IV</i>	Evans, A.J. 1935. <i>The Palace of Minos at Knossos IV</i> , London.
SMP	Knossos Stratigraphical Museum Pot Number