

KAVOUSHI IV

The Early Iron Age Cemeteries at Vronda



KAVOUSI

The Results of the Excavations at Kavousi in Eastern Crete

Directed by

Geraldine C. Gesell, Leslie Preston Day,
and William D.E. Coulson

Sponsored by

The University of Tennessee

Under the auspices of

The American School of Classical Studies at Athens





Frontispiece. Large pedestaled krater (GR27 P4), Early Orientalizing. Watercolor D. Faulmann.

PREHISTORY MONOGRAPHS 71

KAVOUSI IV

The Early Iron Age Cemeteries at Vronda

Part 1

TEXT

By

Leslie Preston Day and Maria A. Liston

Contributions by

Kimberly Flint-Hamilton, Kevin T. Glowacki, Eleni Nodarou,
Effie Photos-Jones, David S. Reese, Lynn M. Snyder, and Julie Unruh

Edited by

Geraldine C. Gesell and Leslie Preston Day



Published by
INSTAP Academic Press
Philadelphia, Pennsylvania
2023

Design and Production
INSTAP Academic Press, Philadelphia, PA

Printing and Binding
HF Group – Acmebinding, Charlestown, MA

INSTAP Academic Press, a part of the Institute for Aegean Prehistory (INSTAP), was established to publish projects relevant to the history of the Aegean world, in particular from the Paleolithic to the 8th century B.C. It is a scholarly nonprofit publisher specializing in high-quality publications of primary source material from archaeological excavations as well as individual studies dealing with material from the prehistoric periods—exemplified by its *Prehistory Monographs* series of volumes. INSTAP is committed to engaging a variety of audiences by disseminating knowledge through its scholarly publishing program, which produces award-winning monographs at reasonable prices that are both academically and popularly acclaimed.

Library of Congress Cataloging-in-Publication Data

Names: Day, Leslie Preston, author, editor. | Liston, Maria A., author. | Flint-Hamilton, Kimberly, contributor. | Glowacki, Kevin T. (Kevin Thomas), 1961- contributor | Nodarou, Eleni, contributor | Photos-Jones, Effie, contributor | Reese, David S., 1954- contributor | Snyder, Lynn M., contributor | Unruh, Julie contributor. | Gesell, Geraldine Cornelia, editor. Title: Kavousi IV : the early Iron Age cemeteries at Vronda / by Leslie Preston Day and Maria A. Liston ; contributions by Kimberly Flint-Hamilton, Kevin T. Glowacki, Eleni Nodarou, Effie Photos-Jones, David S. Reese, Lynn M. Snyder, and Julie Unruh ; edited by Geraldine C. Gesell and Leslie Preston Day.

Description: Philadelphia, Pennsylvania : INSTAP Academic Press, 2023. | Series: Prehistory monographs ; 71 | Includes bibliographical references and index. | Contents: Introduction / Leslie Preston Day -- Tholos tombs at Vronda / Leslie Preston Day and Maria A. Liston -- Enclosure burials at Vronda / Leslie Preston Day, Maria A. Liston, Kimberly Flint-Hamilton, David S. Reese, and Lynn M. Snyder -- Cremation process / Maria A. Liston -- Human remains / Maria A. Liston -- Faunal and botanical remains / Lynn M. Snyder, David S. Reese, and Kimberly Flint-Hamilton -- Funerary architecture / Leslie Preston Day -- Early Iron Age pottery / Leslie Preston Day -- Petrographic analysis of the grave ceramic assemblage / Eleni Nodarou -- Finds other than pottery / Leslie Preston Day, with a contribution by Julie Unruh -- Burial customs / Leslie Preston Day -- History and society in the Vronda graves / Leslie Preston Day. | Summary: "This volume presents the results of the excavation of two cemeteries at the site of Vronda Kavousi in East Crete: the cemetery of tholos tombs belong to the Subminoan to Protogeometric periods (with some use in the eighth century B.C.) and the cemetery of enclosure graves with cremation burials belonging to the Late Geometric to Late Orientalizing periods. A discussion of individual graves (including the stratigraphy, architecture, human remains, faunal and botanical remains, pottery, and other finds) is followed by the analysis of the cremation process and human remains, the faunal and botanical remains, the pottery, the petrographic analysis of the pottery, the metals and other finds, the burial customs, and the history and society of the burying population. A study of the capacities of some of the pottery vessels and a metallurgical analysis of the iron objects appear in appendices" -- Provided by publisher.

Identifiers: LCCN 2022055543 (print) | LCCN 2022055544 (ebook) | ISBN 9781931534369 (v. 1 ; hardback) | ISBN 9781931534369 (v. 2 ; hardback) | ISBN 9781623034412 (pdf)

Subjects: LCSH: Excavations (Archaeology)--Greece--Kavousi Region. | Cemeteries--Greece--Kavousi Region. | Grave goods--Greece--Kavousi Region. | Human remains--Greece--Kavousi Region. | Tombs--Greece--Kavousi Region. | Iron Age--Greece--Kavousi Region. | Kavousi Region (Greece)--Antiquities.

Classification: LCC DF261.K4 D397 2023 (print) | LCC DF261.K4 (ebook) | DDC 938--dc23/eng/20230505

LC record available at <https://lcn.loc.gov/2022055543>

LC ebook record available at <https://lcn.loc.gov/2022055544>

© 2023 by INSTAP Academic Press, Philadelphia, PA, USA
Printed in the United States of America
All rights reserved

It is prohibited to use content of this digital book to train large language models (LLM) or other generative artificial intelligence (AI) technologies or to input into any previously trained AI system.



Table of Contents

Preface.....	ix
List of Abbreviations.....	xiii
Glossary.....	xv
1. Introduction, <i>Leslie Preston Day</i>	1
Methodology	3
Stratigraphy	5
Excavation and Recording of Graves	6
Presentation of the Material	7
Catalogs	8
Pottery.....	8
Other Objects.....	13
History and Chronology of the Vronda Remains.....	14

2. Tholos Tombs at Vronda, <i>Leslie Preston Day and Maria A. Liston</i>	15
Vronda Tomb I (Boyd's Tomb A).....	16
Vronda Tomb II (Boyd's Tomb 1)	18
Vronda Tomb III (Boyd's Tomb B).....	20
Vronda Tomb IV (Boyd's Tomb 3)	20
Vronda Tomb V (Boyd's Tomb C)	27
Vronda Tomb VI (Boyd's Tomb D)	28
Vronda Tomb VII (Boyd's Tomb 4).....	29
Vronda Tomb VIII (Boyd's Tomb 2, Grave 18).....	31
Vronda Tombs II, VII, or VIII (Boyd's Tombs 1, 4, or 2)	34
Vronda Tomb IX.....	35
Vronda Tomb X.....	44
Vronda Tomb XI.....	48
Addendum: Other Vessels Possibly from Vronda Tholos Tombs	51
3. Enclosure Burials at Vronda, <i>Leslie Preston Day, Maria A. Liston, Kimberly Flint-Hamilton, David S. Reese, and Lynn M. Snyder</i>	53
Grave 1	53
Grave 2	59
Grave 3	61
Grave 4	67
Graves 5 and 11	73
Grave 6	81
Grave 8	90
Graves 9 and 14	92
Grave 10.....	109
Grave 12.....	111
Grave 13.....	124
Grave 15.....	127
Grave 16.....	129
Grave 17.....	134
Grave 19.....	139
Grave 20.....	143
Graves 21 and 22.....	151
Grave 23.....	156
Grave 24.....	161
Grave 26.....	162
Grave 27.....	168
Grave 28.....	172
Grave 29.....	181
Graves 30, 33, and 7	183

Grave 31	192
Graves 32 and 25.....	193
Grave 34.....	198
Grave 35	200
Grave 36.....	201
Grave 37.....	208
Other Possible Enclosure Burials.....	209
4. Cremation Process, <i>Maria A. Liston</i>	211
Excavation	211
Inventory and Measurement.....	211
Reconstructing the Cremation Process	212
Classification of Cremation Burials.....	215
Cremation Process at Vronda.....	216
5. Human Remains, <i>Maria A. Liston</i>	219
Tholos Tombs: Demography, Health, and Pathology	219
Enclosure Graves: Demography, Health, and Pathology	220
6. Faunal and Botanical Remains, <i>Lynn M. Snyder, David S. Reese, and Kimberly Flint-Hamilton</i>	235
Animal Bones, <i>Lynn M. Snyder</i>	235
Marine Shells, <i>David S. Reese</i>	242
Palaeobotanical Remains, <i>Kimberly Flint-Hamilton</i>	242
7. Funerary Architecture, <i>Leslie Preston Day</i>	245
Tholos Tombs.....	245
Enclosure Graves	248
Other Types of Burials without Architectural Features	250
8. Early Iron Age Pottery, <i>Leslie Preston Day</i>	253
Discussion by Shape.....	254
General Observations about the Pottery	291
Potters' Marks and Graffiti.....	294
9. Petrographic Analysis of the Grave Ceramic Assemblage, <i>Eleni Nodarou</i>	297
Kavousi Fabrics and the Aim of the Study.....	297
Analytical Results	298
Provenance and Consumption Patterns	303
An East Cretan Assemblage—An East Cretan Community?.....	304
10. Finds Other than Pottery, <i>Leslie Preston Day, with a contribution by Julie Unruh</i>	305
Metal.....	305
Ivory or Bone.....	321
Glass	321
Stone.....	322

Terracotta.....	323
Textile Remains.....	324
Analysis of Textiles, <i>Julie Unruh</i>	325
11. Burial Customs, <i>Leslie Preston Day</i>	327
Tholos Tombs.....	328
Enclosure Burials	331
Comparison of Burial Customs in Tholos Tombs and Enclosures	350
Reconstructing the Burial Rituals	352
12. History and Society in the Vronda Graves, <i>Leslie Preston Day</i>	355
History of Mortuary Use of the Vronda Ridge.....	355
Burying Population and Location of Cemeteries	358
Introduction of Cremation.....	362
Social Structure and Burial	365
Conclusions.....	373
Appendix A. Estimates of Vessel Capacities, <i>Kevin T. Glowacki</i>	375
Cups	376
Skyphoi and Kraters.....	377
Appendix B. Metallographic and Analytical (SEM-EDAX) Investigation of Metalwork from Early Iron Age Kavousi, <i>Effie Photos-Jones</i>	379
Iron Production Using the Bloomery Process.....	380
Iron Artifacts from Vronda and Kastro and Their Examination with Optical and Scanning Electron Microscopy and Microhardness Testing	381
Results and Discussion	382
Appendix C. Concordance of Excavation Inventory Numbers with Catalog Numbers and Museum Numbers	385
References	395
Index	413



Preface

This volume is the fifth in the final report of the cleaning and excavations at Kavousi Vronda, which were conducted between 1981 and 1992 by Geraldine C. Gesell, Leslie Preston Day, and the late William D.E. Coulson. The volume includes two distinct cemeteries: the tholos tombs at Vronda, which were uncovered by Harriet Boyd or local landowners and cleaned as part of the Kavousi Project between 1900 and 1990; and the cremation enclosures excavated by members of the Kavousi Project from 1984 through 1992. Preliminary analysis of the material from the tholos tombs was carried out by Geraldine Gesell (architecture), William Coulson† (pottery), and Leslie Day (objects), and it formed the basis for preliminary reports (Gesell, Day, and Coulson 1983; Day 1984; Gesell 1985). Preliminary reports on the cremation enclosures also have appeared (Day, Coulson, and Gesell 1986; Gesell, Coulson, and Day 1991; Day 1995, 2011a; Gesell, Day, and Coulson 1988, 1995). The skeletal remains from all of the tombs in the Kavousi area were studied and written up by Maria Liston (1993, 2007; Liston and Day 2009). This volume supersedes all of these earlier works.

The reports on the houses of the earlier LM IIIC settlement can be found in three previous volumes. *Kavousi* IIA (Day, Klein, and Turner 2009) describes the buildings on top of the Vronda ridge: Building A-B; Building Complexes C-D and J-K; and Buildings P, Q, and R. *Kavousi* IIB (Day and Glowacki 2012) presents the buildings on the slopes of the Vronda ridge: Building Complexes E, I-O-N, and L-M; Building F; the pottery kiln; and areas

excavated on the periphery that did not belong to any of these buildings. *Kavousi IIC* (Day et al. 2016) contains detailed analyses of the architecture, pottery, other finds (including figurines and stone tools), and botanical and faunal remains, along with a complete history of the site and a reconstruction of the social, political, and religious organization of the LM IIIC settlement. *Kavousi III: The Late Minoan IIIC Shrine* presents the architecture and ritual equipment of the shrine in the settlement (Gesell, Glowacki, and Klein, in prep.). For building and room designations, the reader should consult earlier volumes.

The Kavousi series also will include volumes on the excavations at the Kastro, a site high on the mountain above and to the east of Vronda. The Kastro report will include volumes on the pottery, stratigraphy, architecture, and finds from the settlement on the peak, as well as the material from the tombs on the slopes surrounding the Kastro that were recovered by earlier archaeologists.

A detailed history of excavations at Kavousi can be found in *Kavousi I* (Haggis 2005, xvii–xix) and *Kavousi IIA* (Day, Klein, and Turner 2009, xxv–xxviii, 3–5). It thus will not be repeated here.

The complete list of acknowledgments for the work at Kavousi was provided in *Kavousi IIA* (Day, Klein, and Turner 2009, xxix–xxxv), but since that time others have contributed to the study and publication of the Vronda material. The work has been done with the support of the 24th Ephorate of Prehistoric and Classical Antiquities (now the Ephorate of Antiquities of Lasithi) and especially its directors, Vili Apostolakou and Chrysa Sofianou. We are most grateful for the continuing support of the Institute for Aegean Prehistory (INSTAP). The INSTAP Study Center for East Crete (INSTAP SCEC) has facilitated the studies and has provided the use of publication teams to complete drawings and photography; we are especially grateful to the director, Thomas Brogan, who personally has done so much to support our work. We wish to thank the American School of Classical Studies at Athens (ASCSA) for its support, and in particular the Blegen Library, the facilities of which were a major source of information for our research. We also greatly appreciate the financial support that came from our associated institutions: Wabash College, the University of Tennessee, and Texas A&M University.

The University of Tennessee supported the preliminary studies of the human remains from the graves, and the Wiener Laboratory (ASCSA) and its former and current directors, Sherry Fox and Panagiotis Karkanias, have provided resources and advice for the human bone studies. The data on crania were shared with an undergraduate student, Sarah Swinger, who initially analyzed them for her undergraduate honors thesis and identified some of the patterns in the data.

Others have been generous with their time and expertise. The pottery studies were informed by discussions with a number of individuals, including Antonios Kotsonas, Margaret Mook, Penelope Mountjoy, Metaxia Tsiopoulou, and the late Nicolas Coldstream. The petrographic analysis was conducted at the INSTAP SCEC. Ryan Collier, Matthew Hurley, Shireen Kanakri, Matthew Miller, Megan Oehrlein, and Mark Willingham helped with the estimation of vessel capacities. Analysis of the few stone tools found in the graves was carried out by Heidi Dierckx, who also wrote the catalog entries. Harriet Blitzer and Tristan Carter provided the identification of stones used in objects that were not tools. Initial faunal analysis of the material from the tholos tombs was provided by Sheilagh Wall-Crowther. Walter Klippel collaborated with Lynn Snyder in the species identification of the animal bones from all of the graves, and Dimitra Mylona was enormously helpful in pulling material for analysis and photography. The marine shells were studied by David Reese; an overall discussion of these shells can be found in *Kavousi IIC* (Day et al. 2016). The botanical remains from the graves have been analyzed by Kimberly Flint-Hamilton, and the overall results have been presented in *Kavousi IIC* (Day et al. 2016).

The metallurgical analysis of the iron artifacts from Vronda and the Kastro was carried out by Effie Photos-Jones, of the University of Glasgow and Scottish Analytical Services for Art and Archaeology (Ltd.), Glasgow. The study took place in the 1990s, and it reflects the state of research at that time. There has been no serious opportunity to discuss these results in the context of more recent research on the topic of Early Iron Age metallurgy in Greece. Bloomery iron (early or late) is not a glamorous material, and yet it has been pivotal in the development of the Greek world. Its full story, on its own and vis-a-vis bronze, remains largely unwritten. Unfortunately, it has not been possible to update it with respect to recent comparable work elsewhere in Crete or in other parts of Greece, other than to acknowledge the analytical study by Eleni Filippaki, Yannis Bassiakos, and Barbara Hayden (2014) on mainly Late Roman to Byzantine iron slag from Priniatikos Pyrgos near Hagios Nikolaos in East Crete.

The following individuals worked specifically on the graves, and their contributions are much appreciated. The cleaning of Tholos Tombs I, II, IV–VI, IX, and X was carried out by William Coulson, Leslie Day, and Geraldine Gesell. Tholos VIII was uncovered again by Pedar Foss, and Tholos XI was cleaned by Jane Carter. Trench supervisors of the enclosure graves included Kevin Baldwin (Grave 11), Thomas Brogan (Grave 19), Jane Carter (Grave 34), William Coulson (Grave 1), Leslie Day (Graves 1 and 2), Deanne Dicer (Grave 36), Pedar Foss (Grave 13), Kevin Glowacki (Graves 6–8, 15, 23, 24, 28, 30, 33, 35), James Higginbotham (Grave 16), Nancy Klein (Grave 31), Mark Lawall (Grave 19), Heidi Mittelstadt (Grave 20), Jonathan Reynolds (Grave 20), Julia Shear (Graves 9, 14), Jeffrey Soles (Grave 3), Susan Springer (Graves 4, 5), Lee Ann Turner (Graves 10, 12, 17, 21, 22, 25–27, 32), Benjamin Venable (Grave 29), and Catherine Woolfit (Grave 29). Maria Liston and anthropological assistants (Melinda Carter, Jonathan Reynolds, and Susan Kirkpatrick Smith) worked together with the trench supervisors in excavating the enclosures, overseeing the plotting and removal of the bones and the grave goods.

Plans and sections of the tholos tombs were drawn by William Coulson, Leslie Day, Jeffrey Soles, Pedar Foss, and Konstantinos Chalikias. Charles L. Hall, Douglas H. Pierce, Faye C. Polillo, James Rehard, and Vanessa A. Rousseau drew the state plans of the enclosures. Plans of the tholoi and enclosures were inked by Roxana Docsan.

The difficult task of conservation of the pottery and objects from the enclosure burials was undertaken over the years by a number of conservators, including Jane Allison, Richard Barden, Ann Brysbaert, Nancy Buschimi, Stefania Chlouveraki, Matthew Crawford, Kathy Hall, Barbara Hamman, Katherine Holbrow, Helen Kingsley, Linda Landry, Catherine Magee, Katherine Nightingale, Albert Nyboer, Noël Siver, Kirsten Svenson-Taylor, Christine Thede, Katerina Triandafyllou, Katherine Untch, and Gayle Wever. The pottery and objects from the tholos tombs were drawn by William Coulson, Leslie Day, Geraldine Gesell, and Roxana Docsan; drawings were inked by Roxana Docsan. Pottery from the enclosure burials was drawn primarily by Roxana Docsan and Leslie Day, but also by David Cummins, Stephen T. Moody, and Christopher White; while most of the pottery was inked by Roxana Docsan, a few vessels were done by Doug Faulmann and Elizabeth Safran. The metal artifacts were drawn and inked by Lyla Pinch Brock. Terry Faulkner drew and inked the figures of the semi-articulated skeletons based on the field drawings. Kathy Hall provided testing, X-ray analysis, and perceptive observations about the metal artifacts, including the textile impressions.

Photography was carried out by Kavousi Project staff photographers from 1981–1996: Duane Bingham, Steven Hamilton, Karen Moukheiber, Christina Paterakis, Joanne Polley, Julie Smith, and John Zimmerman. From 1997 to the present, photography has been carried out at the INSTAP SCEC by Kathy May and Chronis Papanikolopoulos. William Coulson, Leslie Day, Geraldine Gesell, Kevin Glowacki, Nancy Klein, and Melissa Eaby were responsible for additional site photography. The photographs of the material excavated by Boyd

were taken by Geraldine Gesell. Theodora Kopestonsky kindly helped with the digitization of many of the photographs.

Quentin Dodd worked on a digital reconstruction of the contents of Grave 9 for his senior undergraduate thesis at Wabash College. Because this occurred early in the use of computers in archaeology, it was not entirely successful. Nevertheless, he was instrumental in determining the stratigraphy of this complicated enclosure.

Kevin Glowacki estimated the capacities of vessel types from the enclosure burials found in Appendix A. The iron artifacts formed the basis for a metallurgical study by Effie Photos-Jones, a report on which is included as Appendix B. Additional information about the metal objects came from X-ray analysis by Kathy Hall at the INSTAP SCEC.

The material from the Vronda cemeteries is to be found in several museums and storerooms in Crete at the time of publication. Pottery and objects from Boyd's excavation of the tholos tombs are in the Herakleion Archaeological Museum (inventory numbers prefaced by HM). The majority of the material from the cleaning and excavation by the Kavousi Project can be found in the storerooms of the INSTAP SCEC. Some vessels are on display or in the storerooms of the Archaeological Collection of Ierapetra (IM), while others (including some that had been inventoried in the Ierapetra museum) have been taken to the Archaeological Museum of Hagios Nikolaos (HNM).



List of Abbreviations

The following chronological abbreviations are used (Bronze Age dates are based on Warren and Hankey 1989; Early Iron Age dates are based on Coldstream 2001 and Kotsonas 2008).

FN	Final Neolithic (ca. 4500–3200 B.C.)	LG	Late Geometric (ca. 745–710/700 B.C.)
EM	Early Minoan (ca. 3200–2100 B.C.)	CA I	Cypro-Archaic I (ca. 750–600 B.C.)
MM	Middle Minoan (ca. 2100–1600 B.C.)	SubG	Subgeometric (ca. 680–650 B.C.)
LM	Late Minoan (ca. 1600–1050 B.C.)	SubLG	Sub-Late Geometric (ca. 680–650 B.C.)
SM	Subminoan (ca. 1050–1000/970 B.C.)	O	Orientalizing (ca. 700–600 B.C.)
EIA	Early Iron Age (ca. 1100–700 B.C.)	EO	Early Orientalizing (ca. 710/700–670 B.C.)
CG	Cypro-Geometric (ca. 1050–750 B.C.)	MO	Middle Orientalizing (ca. 670–640 B.C.)
PG	Protogeometric (ca. 970–810 B.C.)	LO	Late Orientalizing (ca. 640–600 B.C.)
EPG	Early Protogeometric (ca. 970–920 B.C.)	EPAR	Early Protoarchaic (ca. 710/700–640 B.C.)
MPG	Middle Protogeometric (ca. 920–875 B.C.)	LPAR	Late Protoarchaic (ca. 640–600/570 B.C.)
LPG	Late Protogeometric (ca. 875–845 B.C.)	A	Archaic (ca. 600–480 B.C.)
SubPG	Sub-Protogeometric (ca. 850–800 B.C.)	C	Classical (ca. 480–331 B.C.)
PGB	Protogeometric B (ca. 845–810 B.C.)	V	Venetian (13th–17th century A.D.)
G	Geometric (810–700 B.C.)	Ott.	Ottoman (17th century–1900 A.D.)
EG	Early Geometric (ca. 810–790 B.C.)	Mod.	Modern (1900 A.D.–present)
MG	Middle Geometric (ca. 790–745 B.C.)		

The following additional abbreviations are also used in this volume.

AutoCAD	computer-aided design software	M	metal
avg.	average	m	meter(s)
B	bone or ivory	m asl	meters above sea level
brec	breccia	m ²	square meter(s)
ca.	approximately	m ³	cubic meter(s)
cf.	comparable to (in faunal analyses)	max.	maximum
cm	centimeter(s)	mm	millimeter(s)
d.	diameter	MNI	minimum number of individuals
EDM	electronic distance measurement	µm	micron(s)/micrometer(s)
esp.	especially	nm	not measured
est.	estimated	no(s).	number(s)
ext.	exterior	P	pottery
G	glass	para	parallel
G.	Grave	PB	polished block
g	gram(s)	perp	perpendicular
GPS	Global Positioning System	pers. comm.	personal communication
h.	height	pl.	plural
H/DR	ratio of height of an open vessel to the diameter of the rim	PMD	petrography sample by Peter M. Day
HM	Herakleion Archaeological Museum catalog number	pres.	preserved
HNM	Archaeological Museum of Hagios Nikolaos catalog number	S	stone
H _v	Vickers hardness (test for measuring microhardness)	SEM-BS	back-scattered mode scanning electron microscopy
IM	Archaeological Collection of Ierapetra catalog number	SEM-EDX	scanning electron microscopy with energy-dispersive X-ray analysis
INSTAP	Institute for Aegean Prehistory	SEM-SE	secondary emission mode scanning electron microscopy
INSTAP SCEC	Institute for Aegean Prehistory Study Center for East Crete	SHB	smithing hearth bottom
int.	interior	ST	stone tool
KAV	prefix (Kavousi) for petrograph- ic and metallurgical samples	TC	terracotta
kcal	kilocalorie(s)	th.	thickness
kg	kilogram(s)	TMJ	temporo-mandibular joint
km	kilometer(s)	VE	Vronda East
L	liter(s)	VN	Vronda North
L.	length	VS	Vronda South
LCH	Langerhans cell histiocytosis	VW	Vronda West
lime	limestone	w.	width
LEH	linear enamel hypoplasia	wh	whole
		wt.	weight
		XPL	cross-polarized light



Glossary

The text uses the following terms, which are specialized terminology or do not have exact English equivalents.

dromos	passage leading to the entrance of a tholos tomb, often just a pit in front of the stomion
enclosure grave	a stone-lined enclosure containing multiple cremation burials that were burned on the pyre and left in place; formerly called a cist grave
jift	solid and semisolid residue from olive pressing
pseudo-dromos	area in front of a tholos tomb that is not lined with stones and is often merely a pit
stomion	doorway for entering a tholos tomb
tholos	type of tomb that is generally round in plan and covered with a corbeled vault (pl. tholoi)
<i>tsakali</i>	soft marl bedrock that can be cut easily; also called <i>kouskouras</i>
<i>zembili</i>	large rubber basket with two handles used for carrying dirt and stones; approximate capacity of 25.00 L (pl. <i>zembilia</i>).



1

Introduction

Leslie Preston Day

The site of Kavousi Vronda is located on a ridge in northeastern Crete, ca. 4.00–5.00 km east of the isthmus of Ierapetra and 1.25 km south of the modern village of Kavousi, on the eastern edge of the Gulf of Mirabello (Figs. 1, 2; Pls. 1A, 1B). The top of the ridge, which rises to 427.00 m asl, was inhabited in the EM II, MM IB–II, MM III–LM I, and especially LM IIIC period (Day et al. 2016, 119–209). From the 11th century into the 7th century, however, a period here referred to as EIA (for the problems in labeling this period, see Kotsonas 2016), the ridge and its surrounding slopes were used exclusively for burials, first in small tholos tombs on the periphery of the former village, and then in stone-lined enclosures set within the collapsed walls of the LM IIIC settlement (Figs. 3, 4, 6; Pls. 2, 3).

The archaeological importance of the Kavousi area in the Late Bronze and Early Iron Ages was, in fact, first recognized on the basis of graves found there by local farmers. When Arthur Evans traveled through Kavousi on his trip to eastern Crete in 1896 or 1899, he reported a group of objects said to have come from tombs on the slopes of the Kastro peak at Plai tou Kastrou (Gesell, Day, and Coulson 1983,

389, 412–413). In 1900, Harriet Boyd Hawes uncovered eight tholos tombs at Vronda, most of which were already known to local landowners and completely or partially robbed of their contents (Boyd 1901, 132–137). Although a report of her activities at Kavousi appeared in the next year (Boyd 1901), the pottery was given to Lida Shaw King for study, but no detailed publication of the tombs and their material ever appeared. Two photographs of pottery from the tholos tombs appeared in the 1901 report (Boyd 1901, pls. 1, 2), along with a few illustrations of other objects, but no other information was forthcoming.

In 1979 a new study of the Kavousi material was begun by William Coulson[†], Leslie Day, and Geraldine Gesell (Gesell, Day, and Coulson 1983). This study included the pottery and objects from Boyd's excavations now in the Herakleion Archaeological Museum and those from the tholos tomb uncovered by a local landowner in 1951 in the Archaeological Collection of Ierapetra. In 1981, Boyd's tombs and the others that had subsequently been discovered were cleaned, drawn, and photographed. Cleaning of the Kastro in 1982 and the Vronda settlement in

1983 and 1984 demonstrated that the Kavousi sites could provide important new evidence for the transitional period between the palatial cultures of the Bronze Age and the rise of the Greek city-state. As a result, excavations were carried out from 1987–1990 and in 1992 at both Vronda and the Kastro.

Boyd gave number or letter designations to the tholos tombs she discovered at Vronda, depending on whether they had been totally robbed of their contents or not. Letters were used for robbed tombs, and numbers for those still containing material. These numbers were confusing, and in the 1983 report the tombs were sequentially numbered with Roman numerals. The sequence begins with Boyd's Tombs I–VIII; other tholos tombs found by the local landowner and those discovered during the course of cleaning and excavation have been numbered as Tombs IX–XI.

The cleaning on the Vronda ridge in 1984 brought to light two cremation burials, and excavations from 1987 to 1990 revealed more burials within the ruined buildings of the earlier settlement. The cremations within enclosures were originally labeled cist graves because the enclosures formed boxes in which the cremation occurred and the body was left (Gesell, Day, and Coulson 1988, 1995; Gesell, Coulson, and Day 1991). The term “cist grave” has been used for this type of burial in Greece (Dickinson 1983, 57) and elsewhere (e.g., in Early Bronze Age Denmark; see Sørensen and Bille 2008, 257–260), but its use to identify the Kavousi graves has led to confusion on the part of archaeologists who use the term cist for graves constructed of upright slabs (e.g., Kanta and Davaras 2004, 151). Because of this lack of clarity, Kanta identified the Vronda graves erroneously as shaft graves, despite the fact that they are not constructed at the bottom of a deep shaft. Following Melissa Eaby (2007, 326–329), who distinguishes enclosures from cist graves, for the sake of clarity we are now identifying this type of grave as an enclosure burial, although problems of definition still exist (Gaignerot-Driessen 2016, 131).

From the beginning of the excavations in 1987, it was decided to give each deposit of human bones consecutive Arabic numerals, and these numbers were consistently applied. Thus, while the tholos tombs are Tombs I–XI, the graves discovered within the settlement remains are Graves 1–37. Of these 37 graves, 21 were cremations within rectangular enclosures, one was a pitohos inhumation in an enclosure,

seven were dumps of material from some of these enclosures, and seven were other types of burials. Among the seven are a possible pit burial (Grave 8), two possible pyre sites (Graves 13 and 31), a child burial cast into an abandoned room (Grave 24), and three others of uncertain form. The designation of Grave 18 was initially given to what turned out to be Boyd's Tomb VIII, which had been covered over since her time (Grave 18 thus appears as Tomb VIII in this vol., Ch. 2, pp. 31–34; it does not appear in Ch. 3). It is also possible that Boyd's workmen uncovered one of these enclosure burials in 1900. She reports the finding of a hoard of iron objects in one of the rooms of the large building on the summit of the ridge (Boyd 1901, 132). Cremations at Vronda are difficult to distinguish, and Boyd's workmen may have overlooked the fragmentary burned bones and pottery and not recognized the remains as a grave. The iron tools and weapons resemble the objects found in the other enclosure burials more than any finds from the LM IIIC houses, and they are here considered possible grave goods. These iron objects are cataloged after Grave 37, traces of which were also found in the same general area.

Graves 1 and 2 were encountered just below the modern surface during the 1984 cleaning. Graves 3–8 were cleared in 1987, 9–20 in 1988, 21–29 in 1989, and 26, 29, and 30–36 in 1990. Fragments of a human cranium from south of Building B, Room B7 found in 1992 were ascribed to Grave 37. These graves differed from the tholos tombs found by Boyd in a variety of ways. First, they had a different form: they were stone-lined rectangular enclosures instead of built beehive-shaped tombs. Second, they were constructed within the confines of the LM IIIC settlement, often utilizing the still visible walls of those buildings rather than being placed around the periphery of the earlier settlement. Third, these graves contained for the most part primary cremations rather than the inhumations made in the tholos tombs. Finally, the cremation enclosures seem to have been used in the LG to LO periods (mid-eighth to late seventh centuries B.C.), at a later time than the tholos tombs, which were in use from the Subminoan period, shortly after the abandonment of the settlement, into the Geometric period. It is not entirely clear if there was any overlap between the last uses of the tholoi on Vronda and the first appearance of the cremation enclosures, but the last-used of the tholos tombs, Vronda Tomb IX,

contained material similar to what may be the earliest burial in the enclosures (Grave 9), and other tholoi contained some possible LG pottery as well.

Thus, the last uses of the tholos tombs may have occurred around the same time as the first use of the cremation enclosures.

Methodology

Not much is known about the way in which Boyd excavated the tholos tombs. She had four workmen looking for tombs, and they cleared out the tholoi they found, probably from above. She reports that two boys removed a stone from the wall of Tomb IV, creating a window, and in order to remove the pithos within they had to remove the capstone and go in from the top (Boyd 1901, 134). It seems likely that her workmen generally entered the tombs from above and handed out the pottery and objects. There is little information on the disposition of the skeletons or the grave goods within, except in the case of the unlooted Tomb IV. Although some of the material still exists in the Herakleion museum, many of the vessels mentioned or illustrated were no longer to be found in 1979. The skeletal material has also disappeared. When the tombs were cleaned in 1981, it was apparent that the entranceways had not been excavated by Boyd, and we were able to clean out the stomion (doorway) and a pit or pseudodromos that existed in front of each tomb. Cleaning of the floors of the tombs also produced pottery fragments and some bones. The tomb cleared by the local landowner (Vronda IX) had been filled in after he removed the whole vessels; the soil was redeposited in the tomb for the planting of an olive tree. When this tomb was cleaned in 1981 and 1987, we were able to recover more broken fragments of pottery, a few iron objects, and some bones.

The enclosure graves, in contrast, were carefully excavated for maximum recovery of information. The methodology employed for excavation at Vronda changed over the years as we refined and adapted the system to meet changing needs. During the cleaning seasons in 1981 and 1983, when the tholos tombs and the rooms of Building A-B were still visible on the surface, excavation was carried out by rooms, graves, or areas. Within each grave, room, or area, every soil layer was given a designation as a level. In this volume, the word “Level” (with capital letter) will be used as a technical term for the stratigraphic layers observed in the first three seasons of

cleaning. Thus, for example, within Tholos Tomb X, the surface soil was removed as Level 1, slope wash was designated Level 2, a harder-packed layer with stones was labeled Level 3, a layer of loose-packed stones was Level 4, two layers of rubble fill were called Levels 5 and 6, the deep fill in the pit was labeled Level 7, and the fine soil at the bottom was Level 8. Pottery was collected in bags in each level, but the bags were not assigned numbers.

During the 1984 expansion of the cleaning to areas along the slopes of the ridge, where walls and rooms were less clearly visible, a grid was imposed on the site to make it easier to plot the architecture and the finds (Fig. 5). The original grid was oriented due north, and consisted of 5.00 x 5.00 m squares, arranged five across and numbered consecutively (V 000–V 7900) from west to east. This grid proved to be inadequate for the size of the ridge, and during the course of the 1984 cleaning the grid was expanded to include five more squares to the west, again numbered consecutively from the southwestern corner (V 8000–V 15900). Thus, contiguous trenches do not always have consecutive numbers (e.g., V 4000 is adjacent to V 12400). Balks 1.00 m wide were initially left on the northern and eastern sides of each trench, although many of these were subsequently removed. Within each trench, every wall, room, or space was defined as a “Locus” and given a locus number that would replace the final digit(s) of the trench designation (e.g., Trench V 12400, Locus 1 = V 12401). Stratigraphic layers continued to be recognized as different levels, designated, for example, as Locus 12401 Level 2. Pottery pails were labeled consecutively within each locus, for example, Locus 12401 Level 2, pottery pail 1, which is expressed as V 12401.1, Level 2 in the catalogs. Also, objects were given consecutive numbers within each locus. This system caused some confusion, since it was never clear to the excavators whether the pottery pails were to be numbered consecutively in the level or in the locus; it was abandoned after 1984.

In 1987, four new grids were established to cover the remainder of the settlement. These include two large grids, Vronda West (VW) and Vronda North (VN), and two smaller grids, Vronda South (VS) and Vronda East (VE). The abrupt drop on the east and the lack of surface remains there prevented much exploration in this area, while excavations carried out to the south suggested little ancient activity. Both areas were used for the excavation dump.

Beginning in 1987, excavation was carried out according to the locus system. Within each trench, every feature was given a locus designation, whether a horizontal division (wall, room, enclosure, hearth, pit) or a vertical one (different soil layers). Within each locus, pottery pails were numbered consecutively, and object numbers were also consecutive; the pail numbers may reflect that fragments came from a specific area of the grave or those removed on different days. Although this system proved clear (if a trifle unwieldy), it was not always understood by new trench supervisors, and a variety of systems came into being for short periods of time; these will be mentioned in individual contexts.

The use of the trench system with balks helped to pinpoint the precise location of architectural, stratigraphic, and artifactual features in the excavation in an era before modern surveying technology (e.g., total station electronic distance measurement [EDM]) and the Global Positioning System (GPS). Nevertheless, the system had certain drawbacks, particularly with regard to the enclosure burials. Occasionally, a grave was located in more than one trench or even at the junction of four trenches. Grave 3 was the first burial uncovered in more than one trench. The initial attempt to excavate the parts of the grave in each trench separately proved impracticable because of the stones within the enclosure and the disposition of the pottery and bones across trench lines. Therefore, we decided to dig the entire grave as a single locus with dual designations: VW 18104/VW 18203 and later VW 18108/18104. The dual designations were cumbersome, however, and after this experiment, other graves that straddled trenches were dug as a unit with the designation of the trench in which the greatest part of the grave lay or in which the human remains were first recognized.

The first two enclosure graves appeared during the 1984 cleaning. At first they were not recognized as burials because of the fragmentary nature

of the skeletal material. Both graves lay so close to the surface that the tumble and soft soil were not immediately distinguished from the topsoil, and the tiny pieces of bone were not recognized as human remains. Once these two burials were recognized, however, every attempt was made to recover all of the associated material. Beginning in the 1987 season, all of the graves were excavated by a biological anthropologist, who collaborated with the trench supervisors. Any changes in soil or differentiated areas within the enclosure were assigned different locus numbers. Although the cremated bodies were not articulated, the last burial within each enclosure was often in anatomical order, and the recognizable body parts were plotted on the grave plan. Major bones of earlier burials that had been swept to the sides were also recorded on the plans, along with recognizable grave goods. Attempts were made to remove pottery clusters in groups, and these groups were often given special designations that differed from excavator to excavator (for example, they might be given different pottery pail numbers or a cluster number that correlated with the excavator's drawing).

In the graves dug in 1987, there were some anomalies in the ways in which the human remains were initially numbered and labeled that may cause confusion to those using the records or reading preliminary reports. During the first excavation season, numbers were given to every identifiable individual, and these numbers were consecutive in the order they were recognized over the whole site. Thus, for example, burials 1 and 2 were in Grave 3, burials 3 and 6 were in Grave 4, and burials 4 and 7 were in Grave 5. Because this system was inherently confusing it was soon abandoned, and all the burials were renumbered according to their sequence within each grave. Within a grave, each burial was identified with a letter, beginning with the first encountered (e.g., Grave 9, Burial A). After the study of the skeletal material, these designations were changed to numerical labels that reflect the order in which the burials were made; for example, Grave 9, Burial A (the first encountered) became Grave 9, Burials 5, 6, and 7 (two adults and an infant), the last burials made in the enclosure. These are the numbers presented in this final report.

Once a grave was identified by the presence of human remains, soil was retained for flotation in a water sieve. In 1987 large samples were collected for water sieving, but from 1988 onward 100% of the

soil was kept. Much skeletal material was recovered from the residue from water sieving, including the small bones of children, infants, and even fetuses. Tiny objects of metal, such as pins, were also found, as well as fragments of pottery that were too small to have been observed during excavation. While most of the sherds were so small and worn that they were of little use, some were large enough to join onto vessels as they were reconstructed, often providing a link between parts of vessels that otherwise could not have been joined.

Because of the hardness of the soil, a variety of tools were utilized in the excavation. Large picks were used on occasion, particularly in removing the

stones that covered the cremation burials. Trowels, shave hooks, dental picks, and brushes were also employed for the graves. The biological anthropologist supervised the excavation of the graves and usually did the actual digging, plotting the bone fragments on a plan made together with the trench supervisor, who kept track of the elevations, recorded the finds, and managed the disposition of finds and pottery fragments into labeled bags. When, as was common in the 1988 season, several enclosures were under excavation at the same time, anthropological assistants carried out the actual digging with the help of trench supervisors and consultation with the biological anthropologist.

Stratigraphy

No stratigraphy was reported for the tholos tombs, and the only one excavated by the project (Tomb X) had been disturbed. The basic stratigraphy in the enclosure graves was generally quite simple and reflects the way in which the burials were made and covered over. Those enclosures found on the top of the ridge had little soil accumulation over them, whether due to erosion, human modification, or earlier excavation. Boyd commented on the poor preservation of remains on the top of the hill (1901, 132), so it seems likely that there was little accumulation of soil at the time of her excavation, or indeed ever. This lack of deposition can be seen most clearly in the area of Graves 12 and 17. The wall that formed the southern boundary of Grave 12 and the northern boundary of Grave 17 was a house wall belonging to the LM IIIC Building J, Room J4, and it must have been standing at least as high as it is preserved today. The same wall was also used in the Venetian period for Building R (Day, Klein, and Turner 2009, 159). Clearly there had not been much deposition during the thousand years that separated the Late Geometric grave from the Venetian building. Along the sides of the ridge, where terrace walls, both ancient and modern, prevented erosion, the deposits were deeper.

Topsoil represents the surface over the site at the time modern excavations began; in some areas, it had accumulated only since Boyd's time. Topsoil was typically a loose, dry, crumbly loam, brown to pale brown in color (Munsell 10YR 4/3–6/3) and mixed with pebbles and small stones. Below the topsoil

there was occasionally a layer of wash: soft or compacted, yellowish-brown (10YR 5/4–6/4) to very pale brown (10YR 7/3) soil. Below the topsoil and wash, excavators generally encountered a layer of stones mixed with large quantities of shells from land snails; loose stones are the natural habitat for snails in this area, as we discovered when modern examples were collected by workmen taking down modern terrace walls and brought to us later for lunch. Below these stones, interpreted as having been heaped over the enclosure after the last burial, was the actual grave soil. This soil was generally soft, loose, ashy, and very dark brown (10YR 3/3) to grayish brown (10YR 5/2) in color. There were slight variations in the texture and color of the soil in different levels and different areas of the enclosures, and these deposits were given different locus numbers.

In most cases the different burials were not arranged stratigraphically, one on top of another. Rather, the bones and material from the earlier burials had been pushed to the sides of the enclosure and were in some cases dumped outside the enclosure walls. Grave 28 was unusual in having two largely undisturbed primary cremations. Most of the graves had been used for cremations on multiple occasions, and the sequence for each burial event became clear. A pyre was erected within the enclosure, and the body (or bodies—there was evidence for more than one person, often an adult and a child or infant) was burned, perhaps wearing jewelry or accompanied by some grave goods. After the cremation was

completed (an event that took many hours), pottery and other objects were placed in the enclosure. The bodies were left in situ, as can be seen from the semi-articulation of the last cremations in an enclosure. The enclosure was then covered with a pile of stones until its next use. Markers in the form of amphorae or other large ceramic vessels may have stood over or near the enclosures, particularly on the summit of the ridge.

When the enclosure was used again for another cremation, the pile of stones was removed, and the ashy soil containing the bones and grave goods was swept to the walls of the enclosure or tossed outside if the interior space was too full. Thus, we have called the burials within the enclosures primary cremations in order to indicate that the bodies were burned there on a pyre and the human remains were left in situ, not removed for burial in a tomb elsewhere as was most common with cremations elsewhere in the Greek world (for different types of cremations, see

McKinley 2013, 149). The remains that were pushed aside within the enclosure during subsequent cremations are called disturbed primary cremations. The term secondary cremation is used here to designate the bones that were removed from the pyre and placed in ceramic vessels; often these vessels were deposited in the enclosures, as was the case with the container burials in Graves 21, 26, and 28. Cremated bones that were removed from the enclosures for subsequent burials are termed discard deposits. These were often close to the enclosures and were originally given grave numbers (Graves 7, 11, 14, 22, 25, and 33 thus appear in this vol., [Ch. 3](#), with their associated main enclosure burial number). The enclosures produced some inhumations as well, most often the last burial in a grave, as in Graves 5, 6, and 23. Also, at least two children were buried in pithoi in Graves 10 and 21, in the latter accompanying the cremation burials of two adults.

Excavation and Recording of Graves

Architecture

The orientation and location of the tholos tombs varied a good deal. In describing their architecture, the location of the entrance has determined the orientation, and it is generally given in terms of the closest cardinal direction (north, south, east, west).

The enclosure graves were also oriented in different ways, but they had no entrances. Some, but not all, were arranged on a north–south axis and presented no difficulties for description. Those that were not oriented north–south or east–west, however, have been described as if they had been rotated so that one side faced north and the others south, east, and west. For example, if the walls were oriented to the northeast, southeast, southwest, and northwest (as with Grave 5), they are described as north (for northeast), south (for southwest), east (for southeast), and west (for northwest). Generally, a glance at the state drawings of the grave should clarify which walls are being described.

Cataloging of Finds

Pottery was collected in “pails” (although plastic bags were actually used) numbered consecutively

by locus or by locus/level in 1984. Recognizable objects were assigned object numbers that were sequential by locus (e.g., V 5312.1, object 1). Those objects deemed worthy were inventoried. The inventory number includes the letter V followed by the last two digits of the year of excavation and a sequential set of numbers (e.g., V88.4). These inventoried objects were ultimately put into a database, using Dbase II software. Many of the objects were also entered into the catalog of the Archaeological Collection of Ierapetra, and these were physically moved to the Ierapetra storerooms in 1998; the remainder of the material is stored in the Institute for Aegean Prehistory Study Center for East Crete (INSTAP SCEC). The metal objects were subsequently returned to the INSTAP SCEC, where they are currently stored in a climate-controlled area. In the grave catalogs, the Ierapetra museum catalog number is entered when appropriate after the Kavousi inventory number (e.g., IM 1187). Some of the material from the enclosures is now in the Archaeological Museum of Hagios Nikolaos, and its inventory number from that museum is listed after the Vronda inventory and Ierapetra museum number (e.g., HNM 15743). The material from Boyd’s excavations

is in the Herakleion museum, and it was studied in 1979. The Herakleion museum inventory number is included in the catalogs (e.g., HM 1960). The material uncovered in Vronda IX by the local landowner

was inventoried in the Ierapetra museum, and it has Ierapetra inventory numbers; it remains in Ierapetra. The fragments collected during the cleaning of Vronda IX are stored at the INSTAP SCEC.

Presentation of the Material

The tholos tombs discovered by Boyd are presented first in this volume, since they were generally earlier in date and were excavated earlier (this vol., [Ch. 2](#)). The enclosure graves appear next ([Ch. 3](#)), followed by specialist studies. For both types of graves, the discussion includes grave-by-grave descriptions of the architecture, stratigraphy (Leslie Day), human remains (Maria Liston), faunal (Lynn Snyder and David Reese) and botanical (Kimberly Flint-Hamilton) remains, pottery, objects, and chronology (Leslie Day), followed by a catalog and description of the pottery and objects within each grave (Leslie Day). Chapters with the detailed final analysis of the cremations ([Ch. 4](#)), human remains ([Ch. 5](#)), faunal and botanical remains ([Ch. 6](#)), architecture ([Ch. 7](#)), pottery ([Chs. 8, 9](#)), and objects ([Ch. 10](#)) follow. Finally, there are general discussions of the burial customs, the society of the burying population, and the history of use of Vronda as a cemetery site ([Chs. 11, 12](#)). Three appendices provide additional information on the following: the capacities of drinking vessels ([App. A](#)), the metallurgical analysis of iron objects ([App. B](#)), and lists of inventory and museum catalog numbers ([App. C](#)).

With regard to the enclosure graves, a grave number has been assigned to any feature containing human bone, whether or not it has any identifiable funerary structures or grave goods. A burial number has been assigned to each individual skeleton or collection of bone representing no more than one individual. A grave is an archaeological feature; a burial is a body and its associated deposit. Detailed descriptions of the human bones—their weight, preservation and signs of burning, evidence for the ages and sexes of the individuals, and any macroscopically visible signs of pathologies or anomalies—are presented with each grave.

The enclosure graves were numbered sequentially as they were found at the site, but some numbers were subsequently eliminated. Grave 18, numbered when human bone was found, turned out to be

a tholos tomb, identified as Boyd's tomb 2, now Vronda VIII. Other deposits assigned grave numbers were later associated with adjacent enclosure graves on the basis of pottery joins (Graves 7, 11, 14, 22, 25, 33); the bones and other objects associated with those graves have been incorporated into their original deposits. The burials have been designated by the number of the grave in which they were found, and the skeletons were assigned numbers in the order in which they were placed in the grave (to the extent that this could be reconstructed, based on the position of the remains and stratigraphic sequences within the graves).

Assemblages of faunal remains are mentioned in the discussion of each grave and are presented in tabular form; we have deliberately refrained from reporting the minimal number of individuals (MNI) because the small numbers, fragmentation, and poor preservation make such figures meaningless. For shells, however, these figures are appropriate and are given in the tables whenever possible.

The discussion of each grave also includes descriptions of the architecture and stratigraphy, as well as a catalog and description of the pottery and objects. Because the tholos tombs were excavated unsystematically, there is no information that permits us to assign the finds to individual burials. Although there was recognizable stratigraphy in some of the enclosure graves, for the most part the material found within was disturbed by later burial events, natural processes, and human activity, making association of individual finds with particular burials difficult. For these reasons all of the material from a single tholos or enclosure has been cataloged together, although mention is made when the finds can be associated with a particular burial event.

With a few exceptions (a possible Neolithic bowl from Grave 17 [[GR17 P10](#)], fragments from the fill placed in Tomb VIII), only the pottery that seems to belong with the burials has been cataloged, including diagnostic pieces (whole or nearly complete

vessels, rims, bases, handles, and decorated body fragments). Recognizable shapes that are too small or of uncertain shape are mentioned in the discussion of the pottery with each grave, and the pottery from each of the two cemeteries (tholos tombs and enclosure graves) is discussed in detail in a later chapter. The remainder of the pottery from the

enclosure graves, probably fragments from the LM IIIC settlement embedded in the soil matrix of the graves and walls, is not discussed, but the amount by ware type is given for each grave. Objects are cataloged with the discussion of each grave and are also analyzed separately.

Catalogs

The catalogs of the material are included with the grave descriptions rather than being presented with the discussion of the individual types of objects. Within each room, the objects are cataloged by grave in the following order: pottery (**P**), metal (**M**), bone or ivory (**B**), glass (**G**), terracotta (**TC**), and stone, including stone objects (**S**) and stone tools (**ST**). The catalog number is given in bold and includes the tomb or grave in which the object was found (e.g., **TIV** or **GR3**) followed by letters that designate the

material and sequential numbers for objects of that material in that tomb or grave. The catalog entries are arranged as follows:

Catalog Number (Inventory number, museum accession number; find spot [locus/pottery pail, object number]; Fig. no.; Pl. no.). Identification of object. Preservation. Measurements. Description of material and details of manufacture (including fabric, color, wear, and surface appearance). Details of shape or decoration. Type if applicable. *Bibliography. Comparanda. Date.*

Pottery

The pottery is cataloged according to ware in the following order: fine wares, medium-coarse wares, cooking wares, coarse wares, and pithos wares. Within each of these categories, pottery fragments are listed according to their surface treatment: painted (that is, light on dark, dark on light, or monochrome) and plain.

Wares

Fine Decorated

Fine decorated wares are characterized by the use of dark paint on a light background or white paint on a black background. The dark-on-light wares are most common, but because the surfaces are generally worn, it is often difficult to determine if a piece was decorated; often the paint adhered to the sediment, which was removed when the pieces were washed. Sometimes the decoration can only be seen as the area that is dull against a shiny slip. When badly burned, the paint and slip can become like a photographic negative, with the slip a darker color and the paint a lighter color. Because of the

preservation, the drawings give more information than photographs, and photographs are used in this publication more as an indication of preservation than as a record of the original appearance of the vessels. The light-on-dark wares are less common; because of the poor preservation of the surface, added white paint is rarely preserved, and some of the material cataloged as monochrome may originally have been decorated with white paint. Pottery with decoration in white on a dark background is usually EO to LO in date.

Fine Monochrome

Fine monochrome pottery is particularly difficult to read, especially when it is found in small fragments. Monochrome fragments might come from a vase that was entirely painted or from one that had been partially dipped in paint. The latter form of decoration is regularly called blob decoration and can be distinguished only when the line marking the edge of the blob is preserved. The majority of the drinking vessels from the enclosures are monochrome, but some of those from the tholos tombs are dipped or blob.

Fine Plain

There is very little plain ware, and what exists may actually represent the unpainted portion of a vessel with blob or dipped decoration, or a vessel on which the decoration is no longer preserved.

Medium Coarse

Pottery that has frequent small or infrequent large inclusions has been classified as medium coarse. Generally, such vessels are similar to coarse wares but with less numerous or finer inclusions.

Cooking

Cooking wares are rare in the grave assemblages, although many fragments appear in the soil of the graves.

Coarse

Generally, all of the utilitarian pottery shapes, including small jars, jugs, kraters, basins, and assorted specialty shapes, fall into this category.

Pithos

This category includes the large, thick-walled storage jars used as containers or markers.

Shape Descriptions

Within the wares, open vessels are discussed first, then closed, proceeding from smaller to larger vessels. Within each shape, complete examples are described first, then fragments of the rims, handles, and bases, beginning with the better-preserved examples in each of these diagnostic categories. Such descriptions are minimal, providing only information that is not clear from the drawings and photographs; the vessels are described from the top down.

Terminology for Pottery Shapes

For the most part, we have adhered to the names established by Nicolas Coldstream (2001) for the pottery shapes. However, his terminology for storage jars does not fit the ceramics at Vronda. Coldstream, following James Brock (1957), recognizes three categories of jars at Knossos: amphorae, pithoi, and pyxides. The category of amphora is clear and can be recognized in the Vronda assemblages. Amphorae have closed necks and either two vertical handles on their necks (neck amphorae) or two horizontal handles on their bellies (belly-handled amphorae). At

Knossos, the term pithos is used for all large jars, whether necked or neckless, that were used as cremation urns (Coldstream 2001, 24–31). All smaller containers, often of shapes similar to the urns, are termed pyxides (Coldstream 2001, 35–37). Other scholars have accepted this terminology (e.g., Tsiropoulou 2005, 349–355, 379–386; Rethemiotakis and Englezou 2010, 111–114, 146–149; Kaiser 2013, 19–40, 106–111). While this categorization makes sense for the Knossos cemeteries, with their rich sequence of secondary cremation burials in urns, it is not so useful for other sites, as Antonis Kotsonas (2008, 100–101) makes clear. It is particularly inappropriate at Vronda, because the bodies were left in situ, and the bones and ashes were not generally collected and placed in containers. The few secondary cremations were placed either in amphorae or in jars. In this publication, we will use the term necked jar for any jar with a rather restricted neck, whether large or small. The term pyxis is applied to neckless jars, regardless of their size. The term pithos is used only for two large, coarse storage jars that contained inhumations, vessels that resemble the coarse domestic storage jars.

Measurements

All measurements for the pottery and objects are given in centimeters (cm). Rim measurements are taken at the point where the rim meets a horizontal line, unless otherwise indicated. All weights are given in grams (g).

Fabrics

In the catalogs, fabrics have been generally divided into three categories according to the frequency and size of the inclusions: fine, medium coarse, and coarse. These categories were established on the basis of macroscopic observation, and they do not correspond precisely to the categories identified petrographically (fine, semi-fine, and semi-coarse).

Fine wares generally have no inclusions, but they occasionally may include a few larger stones (often phyllites) or many almost microscopic inclusions. Many of these fabrics are local, but there are a substantial number of imported vessels. Medium-coarse wares tend to have more inclusions than fine wares and thinner walls than coarse wares, but the category is a fluid one.

Coarse wares have been identified on the basis of the types established for the Kavousi area by Donald Haggis and Margaret Mook (1993) and published in the first volume of the Kavousi series (Haggis 2005). A brief description based on the work by Mook (2005) appears in *Kavousi* IIA (Mook and Day 2009). Many of the LM IIIC coarse wares are the same as those used for the cult objects from the Vronda shrine, and these were presented in a discussion of that material (Day et al. 2006). Others are to be discussed with the coarse wares from the Kastro in a future volume.

Only a few vessels from the graves were originally tested petrographically, and these are recorded in the catalog as sampled by PMD (for Peter M. Day), with the last two digits of the year followed by the sample number (e.g., sampled PMD 94/10). A further petrographic analysis of the grave pottery, which also included some vessels from one of the tholos tombs (Vronda Tomb IX), was conducted by Eleni Nodarou in 2015, and these sampled items are identified in the catalogs as follows: sampled KAV15/1–15/104. The results of the petrographic analysis are given in Chapter 9 of this volume.

Slips and Paint

Most of the fine ware had a slipped surface, whether as a result of painting the surface with a fine suspension of the clay used to make the vessel or from rubbing the surface. The surface was often slipped even when monochrome paint was added. Some of the medium-coarse and coarse wares were also slipped.

Decoration was in a darker color, and we have chosen to call this “paint,” although it is not a real paint but is instead similar to the slip. Most of the decoration was probably intended to be black, although it fired red and brown as well.

Hardness

Fine wares are generally soft, either due to conditions during firing or as the result of the local soil conditions. Standard descriptions of hardness (e.g., the Mohs scale) are not helpful, as almost all Vronda fine ware falls within the soft range. There are, however, some differences within the category of soft. Fabrics that we term “very soft” are like chalk, coming off on the fingers at a touch. “Soft” fabrics are easily scratched with a fingernail, and the clay comes off on the fingers if rubbed. “Medium-soft” fabrics can also be scratched with a fingernail, but the clay does

not rub off on the fingers. Occasionally, there are fragments of harder fabric (“medium-hard”) or even ones that are impervious to the fingernail (“hard”). Such fabrics are probably not local. Medium-coarse and coarse wares are also soft or hard.

Color

Color presents a difficult problem in the description of pottery. Munsell soil chart designations (Munsell Color 1998, 2000) were given to each piece of pottery in an attempt to achieve standardization. Whenever possible Munsell numbers were taken in sunlight, with the sun behind the viewer. At times, however, the readings were made indoors or in shade, and they were made at different times of day and by different people. As people see colors differently even using the Munsell charts, there was a good deal of variation in the readings. With pottery that was partly burned, we have tried to take a reading on the unburned portions. For vessels that were heavily burned, we gave the closest possible reading of the gray. Fabrics that were completely blackened have simply been termed black.

Preservation

For nearly complete vessels, an attempt has been made to provide the approximate percentage of the original that is preserved. These percentages are estimates. Whenever possible, a record of the number of fragments is provided; we have always attempted to estimate the number of fragments that the vessel was broken into before excavation, so we have not counted the fresh breaks. Some vessels exist in a number of fragments, some of which themselves had been mended from broken pieces that will be referred to as sherds, and whenever possible the number of sherds making up the fragments is noted.

The pottery has poorly preserved surfaces, particularly in the enclosure graves. The fabrics are soft, and they were found coated with soil that was not easy to remove. The soil adhering to the surfaces was often harder than the clay of the pot, and the paint flaked off with the soil or was scrubbed off during the washing process. Faint traces of the painted decoration could often, but not always, be discerned, often by observation in raking light where there was still slip and where it was missing. In addition, the surface condition was affected by the heat and fire of the funeral pyre, which changed the color and consistency of many of the fabrics. A particularly soft

and chalky fabric was common in the cremation burials, and the edges of vessels of such fabric were often too worn to make reconstruction possible. Edges of fragments had to be thoroughly cleaned and consolidated before vessels could be mended. Most were only mended sufficiently to make drawing possible, but some vessels were restored with plaster. Sometimes the vessels that had been in the fire were too warped to be put back together.

Quantification

All of the pottery from the enclosure graves was weighed and counted, and information was kept on the numbers of rims, bases, and handles that were found. Whenever possible, coarse wares that were not cataloged were identified according to the Kavousi coarse fabric types (Haggis and Mook 1993; Mook and Day 2009), so there is some information on the recognizable types in any given grave deposit. Frequently, in the areas of the graves fragments were removed from their pottery contexts by the conservation staff before the study began, often because they were seen to join with other fragments of vessels that were pulled out and inventoried. Whenever possible the count and weight of these pieces is given. Most of the pottery from the water sieve, however, was preserved in tiny crumbs that were not identifiable, and although these were retained, counted, and weighed, they have not been included in the statistical analysis.

Dating

Whenever possible, a date has been assigned to all cataloged pottery. The chronological sequence of the pottery (Table 1) has presented difficulties for three major reasons (for a good discussion of the problems, see Kotsonas 2008, 31–41). The first problem is the paucity of stratified deposits from the relevant periods on Crete. The majority of the pottery comes from graves that were often used over a period of time and disturbed, where vessels of different styles were not placed one over the other or found in their original positions. The dating of this pottery must be based on a typology of shapes and style of decoration. To date, only at Knossos have habitation deposits from the SM, PG (subdivided into Early, Middle, Late, and B phases: EPG, MPG, LPG, PGB), G (subdivided into EG, MG, and LG), and O (divided into the early and late phases EO and LO) periods been excavated,

published, and correlated with the pottery from the graves (Coldstream 2001, 21). The second difficulty lies in the fact that earlier styles of pottery may have continued in circulation or been deemed appropriate for deposition in graves; there is evidence of this custom in the Vronda grave assemblages, where earlier PG styles are found together with LG and even EO–LO pottery. The third problem in the dating of the EIA pottery on Crete is regionalism. Ceramic phases established for Knossos do not correlate precisely with the sequences in other areas of the island, and East Crete in particular developed its own idiosyncratic styles that often lagged behind those in Central Crete. Evidence from the settlement at Kavousi Kastro shows that the earlier PG styles were being produced or at least still in circulation in LG (Mook 2004, 169–173), and that LG styles lingered into the 7th century there (pers. comm., M.S. Mook). In addition, while the many imports from Attica and Euboea at Knossos help to correlate the Central Cretan sequence with that of the rest of Greece, the lack of such imports and even of pottery from Knossos makes such correlations in East Crete difficult. The problem is particularly acute in the SM, PG, and earlier G periods, but somewhat less so in LG, EO, and LO.

The period known as Subminoan was identified by Vincent Desborough (1964, 169) and James Brock (1957, 8), but it has not been found stratified between LM IIIC and EPG contexts anywhere, a fact that has led some scholars to think that it is a style (Mook 2004, 169; Hallager 2010, 153) rather than a chronological unit, as it is viewed by others (e.g. Catling 1996d, 295–297; D'Agata 2011, 53; Day et al. 2016, 103–104). At Knossos four phases of SM were recognized above the LM IIIC deposits, but no succeeding EPG stratum was identified (Warren 1982–1983, 76–87). Two phases of SM have been identified at Sybrita/Thronos, but the material comes from unstratified deposits or discrete ritual pits (D'Agata 1999; 2003; 2007, 101; 2011). Elsewhere on Crete, SM appears primarily in graves, many of which were used over a period of time and contained material of several ceramic phases, as in the North Cemetery at Knossos (Coldstream 2001) and at Eltyna (Rethemiotakis and Englezou 2010), Chamaizi Phatsi (Tsipopoulou 1997), and Vasiliki (Tsipopoulou, Vagnetti, and Liston 2003).

Because SM material appears so commonly in tombs, it has been argued that the SM pottery style was created especially for funerary contexts, as was proposed some time ago for Submycenaean on the mainland (Rutter 1978) and recently reiterated (Papadopoulos, Damiata, and Marston 2011). Thus, it would have been contemporary with late Late M IIIC, but the specialized shapes found in the tombs were not used in the settlements (Gaignerot-Driessen 2016, 17). Florence Gaignerot-Driessen has refined this, suggesting that the style was used exclusively for burial in Eastern Crete, if not elsewhere (2016, 17). Reexamination of the pottery from Karphi, however, where tholos tombs lay scattered around the LM IIIC settlement, revealed that many of the tombs contained material similar to what was used in the LM IIIC houses, as well as some later material including SM and EPG (Day 2011b, 221–242). Thus, the idea that SM was a functional category of pottery made only for funerary use seems not to hold true for that site. In the Kavousi area, one phase (IV) on the Kastro is stratified between LM IIIC and EPG and contains material from both periods (Mook 2004, 169). The excavators have rejected the term SM for this material, preferring to call it “transitional,” but it is in many ways similar to that identified at Sybrita/Thronos as SM II (D’Agata 2011, 55). Material at Azoria has also been identified as transitional between LM IIIC and PG (Haggis et al. 2007a, 696–697).

As has been argued elsewhere (Day et al. 2016, 197–198), there is evidence for SM as a distinct chronological phase at Vronda. While a few vessels approaching SM in style appeared just before the abandonment of the settlement, the majority of the final pottery was of LM IIIC date. Pottery of clear SM date, similar to that found in the earliest tombs of the North Cemetery at Knossos, only began to appear in the tholos tombs, and the tombs were used (if not constructed) after the houses of the settlement had gone out of use. The fact that one of the tholoi was built over a house in the LM IIIC settlement shows that the tombs represent a later phase in the use of the Vronda ridge (Day et al. 2016, 197), although unfortunately this tholos (Tomb VIII) provided little material for dating, and the only preserved vessel (**VIII P1**) that can be securely identified is of LM IIIC date.

It seems clear that a distinct chronological phase existed between LM IIIC and EPG, although there is some disagreement about the terminology that

should be applied to it and whether it came late to the eastern part of the island. Should SM be seen as the latest phase of LM IIIC or the earliest appearance of PG? This question is not merely a matter of terminology, because the change to PG has been seen as evidence for the arrival of Greek speakers in Crete (Warren 1982–1983, 83). It seems best, as there is a phase in the Cretan ceramic sequence already identified as transitional between LM IIIC and EPG, with the long-standing label of SM, to retain this designation and hope for future findings to refine its definition.

The identification of PG through MG material is also problematic at Kavousi. There are few imports of pottery from Central Crete or elsewhere in this period, making correlation of the East Cretan ceramic sequence with the rest of the island difficult, and there may be a regional style of PG. At first the EPG period in East Crete seems to conform to that of Central Crete, although it is possible that the SM style lingered longer in the east. The ceramic styles identified as MPG, LPG, PGB, EG, and MG at Knossos and elsewhere on the island, however, cannot be recognized in the east, where PG styles continued well into the 8th century. Thus, many of the graves, both tholos tombs and enclosure burials, contain pottery that is PG in style (sometimes with parallels in shape or decoration to specific subperiods in Central Crete) but is associated with later LG vessels (Mook 2004, 169–173; Tsiropoulou 2005, 346–347; Kotsonas 2008, 36–37). Mook suggested that the East Cretan pottery of PG style but contemporary with EG and MG in Central Crete (810–745 B.C.; Coldstream 2001, 22) be termed “SubPG” on analogy with certain areas on the mainland (e.g., Euboea; Popham, Sackett, and Themelis 1979–1980, 362) where PG styles continued even after the introduction of Geometric motifs and shapes. Because it is difficult to know if a vessel of PG style was an antique placed with the dead or was produced in an earlier style, the term is not applied to the Vronda grave pottery, although it is used for comparanda from other sites.

During the first half of the 8th century, East Crete began to pick up some of the Geometric styles of Central Crete, and we term this period Geometric. Although some PG styles lingered into the second half of the 8th century in East Crete, the LG pottery seems to correlate with the Central Cretan sequence for LG. However, there may have been a time lag in

adopting the LG styles at Kavousi, and LG pottery may have continued to be produced even after the EO styles were popular in Central Crete. On analogy with the term SubPG, the labels “SubG” and “SubLG” have been used by some scholars to indicate pottery made in LG style in the 7th century, but those labels are not applied to the Vronda material.

There is much pottery of 7th century date that we call Early or even Late Orientalizing at Vronda. The term “Orientalizing” carries a great deal of baggage, and many scholars have abandoned it (for a good discussion of the problems of terminology, see Kotsonas 2008, 40). Kotsonas prefers the term “Protoarchaic.” Orientalizing pottery in East Crete is rarely figured and does not seem to follow styles

elsewhere in Crete or in the Aegean. This style may not have been adopted locally in East Crete until it was already established elsewhere on the island. While the latest burials at Vronda contain much EO pottery, most of them produced a few pieces that find parallels elsewhere from the end of the 7th century, a fact that suggests a lag in the adoption of Orientalizing styles.

In the catalogs, the date given for any individual piece of pottery is its stylistic date, based upon the shape and decoration of the vessel rather than the context, which is usually SM–PG in the tholoi, and LG—but occasionally G, EO, or LO—in the enclosures.

Other Objects

Besides the pottery, other objects from the graves have been cataloged according to their material as follows: metals, bone or ivory, glass, stone, and terracotta. We have made some attempt at dating these objects, especially the metal pins and fibulae, but for the most part the metal, stone, and terracotta objects did not change as much as the pottery, and they cannot be closely dated.

Metals

Metal objects are made of bronze, iron, or lead, and they are cataloged by material in that order. Within each metal group, jewelry is presented first, then decorative metalwork followed by weapons and tools. Jewelry includes pins, fibulae, earrings, rings, and bracelets. Decorative metalwork generally occurs in the form of bronze sheeting that was attached to another material. Weapons are presented according to size from small to large, beginning with arrowheads, followed by spearheads, and finally by short swords (dirks) or daggers. Knives are here considered primarily to have been tools, although admittedly some were also useful as weapons. Tools are discussed in the following order: knives, axes, scrapers, chisels, hammers, files, tongs, awls, tweezers, fleshhooks, and miscellaneous. Every attempt has been made to identify these objects despite their corroded state, but some metal objects defy identification. Weapons present particular difficulties in determining precise

functions. For example, it is uncertain whether a socketed head belonged to an iron spear (used for thrusting) or a javelin (used for throwing), so these objects have generally been cataloged as spearheads. Similarly, the differences between a sword, a small sword (dirk), and a dagger are uncertain. The images of the cataloged metal objects include both photographs and line drawings. The photographs show the objects as they are, while the line drawings indicate how they might have looked before their shapes were corroded and warped.

Bone or Ivory

Objects of bone or ivory are rare and are often completely burned, making identification difficult. This material was generally used for beads, but it could also have been used for inlays or decorative handles.

Glass

Glass was rare in the graves and was used only for beads.

Stone

Stone objects include beads and lids. Most of the beads were made of serpentinite, but a single bead of carnelian (**GR1 S1**) and one of rock crystal (**GR36 S1**) were also found. Most of the lids were simply flat slabs of stones that had been chipped around

the edges to make a circle and used to seal container burials, such as those in Graves 10 (**GR10 P1**) and 28 (**GR28 P3**, **GR28 P22**). A single knobbed lid (**IV S1**) was found in Tomb IV that may have been an antique or a found object. A few fragments

of obsidian blades were also found, but these may well have dated to earlier periods of the site's use. Other stone tools found infrequently within the enclosures probably also belonged to the period of the settlement's use.

History and Chronology of the Vronda Remains

The tholos tombs found by Boyd around the periphery of the Vronda settlement produced pottery considerably later than that discovered in the abandonment levels of the LM IIIC settlement, and it is clear that they were used after the site was no longer inhabited. These tombs began to be used soon after the abandonment of the settlement, with major interruptions until they were reused in the 8th century, probably by the inhabitants of the Kastro.

In the late 8th century the new type of cremation burials in stone-lined enclosures appeared within

the abandoned buildings of the earlier settlement. Although most of the cremation enclosures belong to the LG period (second half of the 8th century), several graves (4, 15, 17, 23, 30, 32) continued in use into EO (early 7th century) or even LO (late 7th century). After this time, Vronda was truly abandoned until the Venetian era, when it again became a site for houses (Buildings F and R).



2

Tholos Tombs at Vronda

Leslie Preston Day and Maria A. Liston

In 1900, Boyd excavated eight tholos tombs on Vronda (Thunder Hill), the spur of the mountain above Kavousi village (Figs. 1–4, 6; Pls. 2, 3; Boyd 1901, 132–137). At that time her workmen cleaned off the tops of the tombs and entered them from above. Only four of these tombs contained objects, while the remainder were robbed. The tombs that produced objects were given number designations (1–4), while those that were empty were assigned letters (A–D). Boyd published the tholoi briefly, giving dimensions of the tombs and listing their contents, if any still remained. The number of ceramic vessels was recorded for each tomb, and some of the pottery was illustrated. One photograph (Boyd 1901, pl. I) shows the pottery from Tomb 3, while another (1901, pl. II) illustrates vessels from Tombs 1, 2, and 4 without further identification. When the material from Boyd's excavations was studied in 1979 by the directors of the Kavousi Project (Gesell, Day, and Coulson 1983, 389–409), it was impossible to identify many of these vessels unless they still bore the original pencil label, and some of them (even those illustrated in the publication) were no longer to be found in the Herakleion Archaeological Museum. Another tholos tomb

excavated in 1951 by a local landowner lay down the slopes to the north of Boyd's tombs at a place now called Xerambela (Fig. 6; Pl. 2), and it was only mentioned briefly in publication (Platon 1951, 445). The pottery from this tholos, which was taken to the Ierapetra museum, was also studied in 1979 with the permission of Nicholas Platon.

Five of Boyd's original eight tombs were cleaned in 1981 by members of the Kavousi Project, and material was recovered, some from within the tholoi, but more from the entryways (the stomion and the pit or pseudo-dromos in front). These entrances had remained unexcavated by Boyd's workmen, who went into the tombs from the top. Three of the tombs (Boyd's tombs 2, 4, and B) were not located at that time. In the preliminary report the numbers that Boyd gave the tombs were changed so that all the tombs on Vronda would have consecutive Roman numeral designations (Gesell, Day, and Coulson 1983, 394). The concordance of these numbers is as follows: Boyd tomb A = Vronda Tomb I; Boyd tomb B = Vronda Tomb III; Boyd tomb C = Vronda Tomb V; Boyd tomb D = Vronda Tomb VI; Boyd tomb 1 = Vronda Tomb II; Boyd tomb 2 = Vronda

Tomb VIII; Boyd tomb 3 = Vronda Tomb IV; Boyd tomb 4 = Vronda Tomb VII; 1951 tomb = Vronda Tomb IX; 1981 tomb = Vronda Tomb X; 1990 tomb = Vronda Tomb XI.

Another tomb, labeled Vronda X, was excavated in 1981, and although it had been robbed, a small amount of material was found inside (Gesell, Day, and Coulson 1983, 405–409). During the excavations at Vronda from 1987–1992, some further excavation was done in and around Boyd's tombs. It was apparent that just to the south of Tomb IV lay Boyd's dump, which was excavated and produced some bones and objects belonging to Tomb IV. When Building L-M was uncovered in 1988, another tholos appeared in the area of Building L, Rooms L2 and L3, and it became evident that this tomb was one of Boyd's tombs that had been covered over; its location conforms to that shown on her plan as tomb 2 (now Tholos VIII), which had not been located in 1981 (Gesell, Coulson, and Day 1991, 160–161; Day and Glowacki 2012, 144, 146–148). Another tomb came to light in the area just north of LM IIIC Building Complex I-O-N in 1990 (Gesell, Day, and Coulson 1995; Day and Glowacki 2012, 170–171). At first this was believed to be one of Boyd's that had not been located in 1979 (Tholos VII; Gesell, Day, and Coulson 1995, 91–92), as it conformed to the location Boyd indicated on her schematic plan of the cemetery (Boyd 1901, 132 n. 1). Subsequently, however, it became clear that the well-preserved tomb did not match the description given by Boyd, and the tomb was given a new designation of Tholos XI. In 1988 some cleaning also was done in Tholos IX, where it appeared that the landowner had only removed whole vessels and had left fragments of pottery and iron objects behind in the fill put in after the planting of an olive tree.

The significance of these tombs and their relationship to the LM IIIC settlement is difficult to determine, and dating has been problematic. None of the

material from the tombs looks as early as that found in the LM IIIC settlement (see Day et al. 2016, 197), although fragments around the floors and in the stomion and pseudo-dromos of the tombs look LM IIIC in date. Tomb VIII cut into one of the LM IIIC buildings, and it is possible that Tomb XI did as well. The other tombs are to the north and the west of the earlier settlement, possibly outside its boundaries. While it is possible that these tombs were constructed and first used by the inhabitants of the Vronda settlement in LM IIIC, one would have to suppose that subsequent users removed all of the material belonging to those earlier burials. It is more likely that these tholos tombs were constructed after the abandonment of the LM IIIC settlement. Our interpretation is also hampered by the fragmentary state of the evidence, as so many of the vessels excavated by Boyd are now missing or their find spots could not be determined. Most of the published material dates to SM–PG, but there is some later Geometric material, perhaps not as late as that which was found in the cremation cemetery on the ridge above. From Boyd's publication, it is impossible to assign groups of pots to particular burials within the tombs, and dating must be done purely on stylistic grounds. As the pottery sequence for East Crete in this period is still a matter for debate, dating often becomes difficult or impossible, especially with small jugs and cups. Desborough (1952, 268) was uncomfortable with some of the material illustrated for Tombs II, VIII, and VII (Boyd tombs 1, 2, 4), but he thought that if Tomb IV (Boyd tomb 3) was a homogeneous group, then probably II, VIII, and VII were also. After examining some of the unpublished material from Tombs IV and IX, it is clear that there is some later material in the tombs, showing, at least, that they were used over a considerable period of time by several generations. It is thus probable that none of the tombs is homogeneous in date.

Vronda Tomb I (Boyd's Tomb A)

In 1900, Boyd found Vronda Tomb I in a ruined state and thoroughly plundered (Boyd 1901, 132). The tomb was located and cleaned in 1981. At that time the interior circle was visible, but the stomion and the area in front of it had not been cleared (Pl.

4A). Cleaning revealed a stone-lined dromos leading into the tomb. Some fragments of pottery were recovered, primarily from the dromos and stomion (Gesell, Day, and Coulson 1983, 396–397).

Architecture and Features

Vronda Tomb I is not well preserved; it rises only four courses high in the south and three courses on the north for a maximum preserved height of 0.86 m (Fig. 7). In the shape of an irregular circle, it has an interior diameter of 1.64–1.68 m (Fig. 8). During construction some of the *tsakali* bedrock had been cut away around the exterior, and the blocks of the walls were shoved up against it, particularly on the east and north; on the south, the stones seem to have been pushed up against the slope of the hill. The entrance is on the west through a long (1.60 m) dromos and a stomion or doorway (Fig. 8; Pl. 4B). The dromos runs parallel to the slope of the ridge, and the stomion opens out to the west onto what is today a flat terrace. The bottom of the grave had been carved out of the local *tsakali*, and a dirt floor had been laid over it. The walls were constructed almost entirely of the local breccia, with some limestone blocks used for the stomion. The stomion was 0.50 m high, 0.72 m wide, and 0.64 m deep. While some limestone was employed in the sides of this doorway, the lintel is a single block of breccia. The area in front of the stomion had been excavated out of the *tsakali* by the builders as a long pit, which was then lined with stones, forming a dromos. This dromos consists of two nearly parallel rows of single limestone or breccia blocks, four on the north and three on the south. The north wall of the dromos is longer than the south, and it bends out slightly toward the north. The floor of the dromos slopes downward from the exterior to the stomion.

Stratigraphy

The burial chamber was found filled with tightly packed soil and medium- to large-sized stones, all of which appeared to have accumulated since Boyd's time. The stomion and dromos, however, had not been previously excavated. The stomion had been blocked in antiquity with two large, flat stones set one on top of the other, with some soil above, below, and between the stones (Pl. 4B). The dromos was found filled with hard light brown soil mixed with stones, and over the top of this soil a large quantity of stones was encountered, perhaps a sort of cairn marking the position of the entrance (Pl. 4C).

Burials

During cleaning, remains of a single burial were discovered.

Burial 1

Type: disturbed inhumation

Age: adult

Sex: unknown

Tomb I contained 18.00 g of bone, consisting of four fragments of long bone shaft that appear to be from an adult human.

Faunal Remains

A single bone was identified from the dromos (Table 2). It is a sheep or goat unsided femur diaphysis fragment. The element is eroded.

Pottery

Several fragments that may represent material from the use of the tomb were recovered from the cleaning within the chamber. These include a bell skyphos (I P1), a very small rim fragment that may come from a krater or a jar (I P2), and a kalathos or lekane (I P3). The bell skyphos is unusual in shape because of the ridge at the base of the neck. A similar shape, with a more flaring rim above the ridge, characterizes a bell krater from Knossos (Coldstream and Catling, eds., 1996, 115, fig. 95:136), where it is categorized as an EG survival of a PG shape. The rim fragment (I P2) resembles LM IIIC kraters from the Vronda settlement (Day, Klein, and Turner 2009, 30, fig. 16:AE P18; 131, fig. 87:J1 P15), but it may also have come from a jar or necked pithos like those from Knossos of E (Coldstream and Catling, eds., 1996, 92, fig. 86:3) or EG date (Coldstream and Catling, eds., 1996, 170, fig. 121:129.5). The lekane (I P3) is similar to an example from the LM IIIC Vronda settlement (Day and Glowacki 2012, 97, fig. 86:O1 P13). Very little was recovered from the dromos beyond a fragment of a skyphos and several pithos sherds.

Objects

In Tholos I, Boyd discovered only one soapstone whorl, which could not be found in 1979.

Chronology

There is little evidence that would allow us to date this tomb. The bell skyphos (**IP1**) is probably of PG date, while the rim fragment (**IP2**) could have come from a LM IIIC krater or a PG–EG jar. The lekane (**IP3**) seems to be closest to LM IIIC examples from the settlement and elsewhere, but it may represent material from the settlement that came in with the soil. A date within SM–PG seems the most likely.

Catalog

Pottery

FINE WARES

IP1 (Fig. 9). Bell skyphos. Single fragment from rim and upper body, including handle attachment; at least two or as many as six additional body fragments may belong. Max. pres. h. 5.9; d. rim 16.0. Fine, reddish-yellow

(5YR 7/8) fabric, worn and flaky surfaces. Traces of light red paint inside and out. Flaring rim, with collar below it; two round horizontal handles. *Bibliography*: Gesell, Day, and Coulson 1983, 397, fig. 4. *Comparanda*: Coldstream and Catling, eds., 1996, 50, fig. 72:106 (Knossos, LPG); Sackett, ed., 1992, pl. 51:GA2 (Knossos, LPG). *Date*: PG.

IP2 (Fig. 9). Krater or jar. Single fragment from rim. D. rim est. 20.0. Fine, reddish-yellow (5YR 7/8) fabric with flaky worn surfaces. Traces of streaky black paint inside and out. *Date*: PG?

MEDIUM-COARSE WARES

IP3 (Fig. 9). Kalathos or lekane. Single fragment from rim. D. rim est. 26.1. Medium-coarse, reddish-yellow (5YR 7/8) fabric with pebble and clay inclusions. Some secondary burning on exterior. No traces of paint inside or out. *Comparanda*: Rethemiotakis and Englezou 2010, 44, fig. 23:45 (Eltyrna, SM); Day and Glowacki 2012, fig. 85:O1 P13 (Vronda, LM IIIC). *Date*: LM IIIC or SM.

Vronda Tomb II (Boyd's Tomb 1)

Vronda II lies north of the LM IIIC settlement, west of Tomb I. Boyd reported that this tomb had partly collapsed (Boyd 1901, 132–133, pl. II; Gesell, Day, and Coulson 1983, 396–398). Although it was partially robbed, the tumble of several large blocks preserved a number of objects, some of which were pictured without further identification on plate II of Boyd's 1901 publication (Pl. 5A). The tomb was said to contain parts of three skeletons (including a skull), 13 nearly whole pots, two bronze rings, and two clay whorls (Boyd 1901, 132). The burial chamber was cleaned in 1981, and the stomion and pit that formed a pseudo-dromos in front of the tomb were excavated at that time, producing some additional sherds.

Architecture and Features

Tomb II is well preserved (Fig. 10). It stands five courses high to a maximum preserved height of 1.30 m. The *tsakali* bedrock was cut back when the tomb was constructed, particularly on the southeast (visible in the photo: Pl. 5B). The interior ground plan is a rough oval measuring 1.30 × 1.70 m. The tomb is constructed primarily of local breccia boulders, with smaller breccia and limestone blocks at the bottom. A dirt floor covered over a slight depression

carved below the foundations of the walls into the bedrock. The stomion is on the northwest; it is an elaborately-constructed facade with a large lintel block of limestone and another course of limestone blocks with small stones as chinking above (Pl. 6A). The support for the lintel is made up of two courses of limestone blocks on either side. The stomion is 0.60 m high, 0.42 m wide, and 1.20 m deep. The floor of the stomion is made up of three flat paving stones, and it slopes downward from the opening toward the tomb chamber. There is no true dromos outside this stomion as in Vronda Tomb I or elsewhere (e.g., at Karphi: Pendlebury, Pendlebury, and Money-Coutts 1937–1938, 100–107, pls. 12, 13), but the projecting stones of the stomion form a pseudo-dromos. In front of the facade is a pit 1.20 m long and 1.60 m wide cut into the *tsakali*.

Stratigraphy

The tomb chamber was found filled with large stones, probably fallen from the upper part of the corbeling since Boyd's day. Some hard-packed light brown soil overlay the *tsakali* bedrock, and this was removed; it was probably the original floor of the chamber. It resembled the unexcavated soil in the stomion and pseudo-dromos, so it probably was not

soil that had accumulated during the years the tomb lay open after Boyd's excavations. The stomion and pseudo-dromos had not been excavated and were cleared in 1981. The stomion was filled with hard-packed light brown soil (Level 2) with two very large, flat slabs of limestone and two smaller pieces of limestone above the soil (Pl. 6B). The pit in the pseudo-dromos had been dug down to the *tsakali*. After use, the pit was filled in with hard-packed light brown soil similar to that filling the stomion. At the level of the bottom of the lintel block, a layer of flat paving stones of limestone was placed in front of the stomion (Pl. 6C). Finally, the area was filled up with more soil (Level 1) and a layer of stones placed on top to form a sort of cairn or marker over the pit (Pl. 7A).

Burials

Boyd reported removing three human skeletons from the tomb (Boyd 1901, 133). Her excavation appears to have been quite thorough; during the cleaning only two pieces of human bone were recovered.

Burial 1

Type: disturbed inhumation

Age: adult

Sex: unknown

Fragments of adult human bone, a first metacarpal and a long bone shaft fragment, were recovered in the cleaning.

Faunal Remains

Two animal bones were recovered during the cleaning of this tholos (Table 2). The first, a single sheep or goat vertebra fragment, was eroded. A second bone fragment was unidentifiable as to animal or element represented. Two additional sheep or goat elements, possibly from Vronda Tomb II, were recovered on August 28, 1981. The distal portion of a left metatarsal came from an immature animal. An isolated first phalange was also recovered.

Pottery

Of the 13 vases mentioned by Boyd, only the lentoid flask (II P1) can be securely identified; others may be pictured in her plate II (1901; Pl. 5A). The lentoid flask is almost certainly of SM date and has parallels in the East Cretan repertoire of this period. Other

fragments found in the cleaning were largely coarse wares, including pithos and cooking wares that may have been in the soil at the time of construction. The pottery from the pseudo-dromos produced a number of small fragments from fine drinking vessels and some possible oinochoe fragments, none of which is precisely datable. Vessel II P2 is either a LM IIIC deep bowl or a SM-PG skyphos fragment, and the high placement of the handles suggests a LM IIIC date.

Objects

Boyd reported finding four objects in this tomb: two bronze rings and two clay whorls, none of which was located in the Herakleion museum in 1979. Of the two terracotta "whorls" or beads, one was plain with a diameter of 2.50 cm, while the other, with a diameter of 1.70 cm, had a "walnut" pattern (Boyd 1901, 132), probably similar to examples found in the cremation burials (GR3 TC1, GR36 TC5; this vol., Ch. 3). One of the bronze rings, with a diameter of 3.50 cm, had small hooked points, and it may have been an earring like the one found in Enclosure Grave 3. The other, with a diameter of 2.00 cm, also had hooks, but they were broken.

Chronology

There is very little material with which to date this tomb. The lentoid flask (II P1) suggests a SM date for at least one of the burials. Of the fragments recovered in cleaning, one may have come from a LM IIIC deep bowl (II P2), similar in shape to a very late LM IIIC example from the Vronda settlement (see below). Two drinking vessels (II P3, II P4) from the pseudo-dromos have rim profiles similar to LPG or LG cups, but they are much larger, indicating a LG date for the last burial.

Catalog of Finds from Chamber

Pottery

FINE DECORATED WARES

II P1 (HM 1972; Fig. 9; Pl. 7B). Lentoid flask. Intact, but worn and chipped at the rim. H. 15.6; d. rim 2.9; max. d. 12.3. Very soft, fine, very pale brown (10YR 8/3) fabric, reddish-yellow (5YR 7/6) where paint has worn off. Irregular lentoid body, more rounded on one face than the other, with short, slightly flaring neck. Rim beveled inside.

Upper handle attachment just below rim. Airhole below handle. Decoration worn, but traces of concentric circles on body, with large filled circle in center. Possible bands on neck. *Bibliography*: Gesell, Day, and Coulson 1983, 397, fig. 4:2, pl. 76:a; Tsipopoulou 2005, 79, pl. 32, fig. 144; Karageorghis et al. 2014, 97 (Creto-Cypriot juglet, SM). *Comparanda*: Catling 1968, 113, 115, fig. 5:21; Popham, Sackett, and Themelis 1979–1980, 331, pl. 126:8 (Lefkandi, LPG); Tsipopoulou 1997, 469, fig. 12 (Chamaizi Phatsi SM); 2005, 321, fig. 144:Σ3819 (Chamaizi, SM); Hayden 2003, 47, fig. 21:99 (Vrokastro, SM/PG). *Date*: SM.

Catalog of Finds from Pseudo-Dromos

Pottery

FINE MONOCHROME WARES

II P2 (Fig. 9). Deep bowl or skyphos. Single fragment from rim with handle attachment. D. rim est. 12.0. Fine,

soft, pink (5YR 7/4) fabric. Red (2.5YR 4/6) paint. Monochrome inside and out. *Bibliography*: Gesell, Day, and Coulson 1983, 397, fig. 4:3 (emended). *Comparanda*: Day and Glowacki 2012, 13, fig. 16:E1 P96 (Vronda, late LM IIIC). *Date*: LM IIIC–PG.

II P3 (Fig. 9). Cup or skyphos. Two joining fragments and one nonjoining from rim. D. rim est. 15.0. Fine, soft, light red (2.5YR 6/6) fabric. Black to red (2.5YR 5/6) paint. Worn surfaces. Monochrome inside and out. *Comparanda*: **GR9 P13–GR9 P15**. *Date*: LG?

MEDIUM-COARSE WARES

II P4 (Fig. 9). Cup or skyphos. Single fragment from rim. D. rim est. 14.0. Medium-coarse, reddish-yellow (5YR 6/6) fabric with phyllite inclusions. Creamy, heavy, red (2.5YR 4/6) to black paint. Worn and eroded surfaces. Monochrome inside and out. *Comparanda*: **GR9 P23**. *Date*: LG?

Vronda Tomb III (Boyd's Tomb B)

Vronda III, which was the best preserved of the tholos tombs excavated by Boyd, lay north of the settlement and southwest of Tomb II, but it could not be located in 1981 (Boyd 1901, 132). The tomb published by Eaby (2007, fig. 54) as Vronda III is actually Vronda Tomb VIII (see below). Boyd described the tomb as the best constructed of the eight she found, with the chamber made of large stones in fairly regular shapes, probably limestone. She reported that the

chamber was square at the bottom to a height of 0.67 m, and then the corners rounded out and the corbeling began. What she called the dome was made of smaller, more irregular stones. The lintel block was broken in two pieces. The burial chamber had an estimated height of 2.00 m, while the ground plan was a square measuring 2.00 m on each side. The stomion was 0.80 m high, while the pseudo-dromos was 0.85 m wide. Boyd found nothing in this tomb.

Vronda Tomb IV (Boyd's Tomb 3)

Tomb IV lies to the northwest of the LM IIIC settlement, east of Tomb V. Boyd found this tomb intact, with four skeletons stretched out on the floor beside a pithos containing ash, and with 40 vases scattered around (Boyd 1901, 133–134, pl. I). A number of objects of bronze and iron were found, including five fibulae. Of the 40 vases mentioned by Boyd, only 19 can now be identified: 10 still preserved in the Herakleion museum in 1979 and another nine pictured in the original publication (Pl. 7C). Only five of the bronze objects could be found in the Herakleion museum in 1979: four fibulae and the bracelet. There was no trace of the pithos. During the 1981 cleaning, some sherds were recovered

from inside the tomb and some from the area in front of the facade (Gesell, Day, and Coulson 1983, 397–399). A large number of fragments came from a dump just outside the tomb, which was cleaned in 1987 and 1988 when rainstorms revealed quantities of human bone in the scarp.

Architecture and Features

Vronda IV is of unusual plan, with a good facade and two walls defining a broad area in front of the stomion (Figs. 11, 12; Pls. 8A, 8B). It was built into the hillside, with the stomion facing west. The tomb chamber is preserved generally to a height of 1.60

m in seven courses, with one stone remaining of the eighth course in the south. It is roughly circular in shape, measuring 1.70 x 1.80 m, with the stomion off-center at the north end of the west side. The floor is bedrock.

The stomion floor slopes down to meet the floor of the chamber. The stomion is elaborately constructed with a large (0.96 x 0.26 m) limestone lintel block, a layer of small stones above it, and a third course of limestone blocks above that (Pl. 8B). The front of the tomb extends to a terrace wall on the north. This terrace wall projects some 1.45 m to the west, perpendicular to the stomion, forming a space in front of the tomb. An elaborate facade is thus created for the tomb, and this extends to the south. While there is no wall corresponding to the one projecting on the north, the facade extends at least to a line of stones running east that may mark the southern boundary of the tomb. The doorway itself is 0.86 m wide, 0.60–0.80 m high, and 0.70 m deep.

In front of the stomion, a small pit was cut into the bedrock and lined with two stones, breccia on the north and limestone on the south, to form a pseudo-dromos. The pit was 0.90 m long and 1.04 m wide. On the north, the terrace wall continues to the east of the tomb to mark out its boundary, while the line of stones on the south side may indicate the southern boundary. The presence of a sort of temenos wall around this tomb, along with the elaborate facade and the open area on the front, are unique features, not known at any of the other Kavousi tholoi and unparalleled elsewhere, although some of the Karphi tholoi at Ta Mnemata (Tombs 1, 2, and 5) have boundary walls around the outside (Pendlebury, Pendlebury, and Money-Coutts 1937–1938, pl. 12). It is possible that the area in front of the tomb was left open or was opened at the time of each burial for the enactment of a ritual. It is also interesting that one of the later Geometric cremation enclosures (Grave 3) was placed just downslope from Vronda IV and on a similar alignment (Fig. 12); it also had an unusual feature: a paving to the south of the grave that may also have been open for postfunerary rituals.

Stratigraphy

The tomb was found with stones and fill inside, and it was cleared out in 1981. The area in front of the stomion and over the pseudo-dromos was covered

with stones (Pl. 8C). A layer of flat stones was found at the level of the lintel as in Tombs II and VII (cf. Pl. 6C). The stomion itself also was filled with flat stones and hard soil, like the other tholoi at Vronda (cf. Pl. 6B).

Burials

Boyd reported four skeletons lying in extended positions on the tomb floor, along with a pithos containing ash. This ash may represent the remains of a cremation burial, but no bones were recognized within; a broken fibula and three pieces of an iron blade accompanied the ash in the pithos. Although little bone was recovered from the tomb itself during cleaning, a quantity of human bone was uncovered in the dump adjacent to the tomb, which was found to contain the soil and discarded materials from Boyd's excavation. Boyd noted that three of the skulls were intact and the fourth was fragmentary (Boyd 1901, 134). The three intact skulls were apparently removed, but fragments of a single skull, possibly the broken one noted by Boyd, were recovered from the dump deposit. Eighty grams of cranial bone and 1,204.00 g of postcranial bone were found in the dump of Vronda IV.

In addition to the bone in the dump, assumed to be from the tomb itself, more human bone was found in the area in front of the tomb, which had not been excavated by Boyd. As Boyd indicated that the tomb contained intact skeletons, these remains may be from earlier burials in the tomb that were removed to make room for the later bodies. The bone from the area in front of the tomb comes from a minimum of two individuals, recorded here as Burials 5 and 6.

Burial 1

Type: disturbed inhumation

Age: mature adult

Sex: male

One of the partial skeletons found in Boyd's dump is an adult male of indeterminate age. The sex of this individual was determined on the basis of the morphology of the mandibular mental eminence (chin), the cranial fragments, and the sciatic notch. A total of six teeth were recovered from the dump, presumably from the fragmentary skull. The wear on the enamel of the molars and premolar suggests an older adult.

Burials 2 and 3

Type: disturbed inhumations

Age: adults

Sex: unknown

These burials consist of two fragmentary adult skeletons found commingled with the remains of Burials 1 and 4 in Boyd's dump. These additional adult burials are recognized on the basis of the presence of two left, two right, and one unsided talus, two left patellae, and 14 metacarpal shafts. A total of six adult teeth were recovered, probably from Burials 1, 2, and 3.

Burial 4

Type: disturbed inhumation

Age: juvenile, 6–12 years?

Sex: unknown

This burial from Boyd's dump is a juvenile of indeterminate age, probably between six and 12 years of age. The recovered bone includes fragments of the left ischium and unidentified long bones.

Burials 5 and 6

Type: disturbed inhumations

Age: adults

Sex: unknown

These two adult individuals were identified on the basis of two distinctly different sizes of the femur shaft fragments, not by a repetition of skeletal elements. Only postcranial bone fragments were found in the area in front of the tomb.

Faunal Remains

A single sheep or goat left mandibular condylar process was recovered during cleaning of Boyd's dump from this tholos (Table 2). A single dog cockle shell (*Glycymeris*) was also found (Table 3).

Pottery

Boyd reported that there was no regularity in the placing of the vases and that some of the smaller vessels were set inside larger ones (Boyd 1901, 134). Of the 40 vessels mentioned by Boyd, only 10 could still be located in the Herakleion Archaeological Museum in 1979. Others were pictured in a photograph in the report on the 1900 excavations (Pl. 7C; Boyd 1901, pl. I). While these could not be studied or cataloged, it is possible to distinguish a number of vessels and suggest dates for them.

One of the earliest vessels is the deep bowl pictured in the middle row in Plate 7C, second from the right, which resembles carinated LM IIIC types from Karphi (Day 2011b, 140–141, fig. 5.2:K61.1) and Chania (Hallager and Hallager, eds., 2000, pl. 35:71-P 0739), although the height of the base, which is almost a pedestal, suggests a later, perhaps SM, date. A bell skyphos (Pl. 7C: bottom row, third from right) is a type artifact for the SM–EPG period. It has the typical tall conical foot and dipped decoration that coats only the top of the vessel, and it has parallels at Knossos of SM (Brock 1957, 161, pl. 3:2) or PG (Brock 1957, 161, 17:208) date and at Karphi (Day 2011b, 228–229, fig. 7.4:M8.1). The broader shape of the Vronda skyphos puts it closer to the SM examples from Knossos (Coldstream 1996, 379).

The small cylindrical-mouthed jug decorated with multiple loops on the shoulder and bands below may also be early (Pl. 7C: bottom row, second from right); the decoration of pendant multiple loops is common in LM IIIC, although usually found on deep bowls (Day 2011b, 260–261; Day et al. 2016, 71). A PG oinochoe from the Chania area, however, is similar in shape and decoration (Andreadaki-Vlasaki 1991, 414, fig. 9), so this jug may be SM or PG. Three oinochoai pictured may be later. One, with a clear trefoil mouth (Pl. 7C: middle row, fourth from right), is similar to an oinochoe from Knossos of LM IIIC–SM date (Hood et al. 1958–1959, 248, 241, fig. 27:VII.9). Another oinochoe (Pl. 7C: middle row, left) resembles examples from LPG–PGB Knossos (Brock 1957, 156–157, pl. 26:351, 368) and MPG–LPG Hagios Ioannis (Boardman 1960, 130, pl. 35:I.40), although Desborough (1952, 268) suggested, with reservations, that this vessel might be Geometric. The final oinochoe (Pl. 7C: middle row, third from left) is larger and looks as though it may be of coarser fabric, with incised bands around the neck. Similar coarse oinochoai of PGB–EG date are found at Knossos (Coldstream and Catling 1996, eds., 5, pl. 47:8; 47, pl. 78:10; 256, pl. 233:3), but they also occur in a well deposit in the Unexplored Mansion at Knossos with material dating around 600 B.C. (Kotsonas 2012, 162, fig. 3). The coarse fabric of these vessels is similar to that of a type of small juglet that imitates Cypriot Black Slip ware, usually dated to PGB–EG, but which continues later into LG (Kotsonas 2012, 161–162).

The two pyxides shown (Pl. 7C: top row, second and third from left) are similar to a decorated

example from Adromyloi of LG date (Droop 1905–1906, 45, fig. 22:3248; Tsipopoulou 2005, 215, fig. 60:AN 3246), and the right-hand pyxis also resembles an example of EG date from Eltyna (Rethemiotakis and Englezou 2010, 72, pl. 138:134e). The missing cup pictured in the bottom row of [Plate 7C](#), second from the left, could date anywhere from the PG to LG periods; from the photograph, it would appear that the handle is round rather than flat, a feature that would place it toward the early (PG–G) end of the sequence of monochrome cups in the Kavousi area (cf. [IX P28](#), [IX P29](#), [IX P59](#)).

Finally, the pithos found in the tomb, which could not be located, was described by Boyd as 1.11 m in height with six handles, three above and three below (Boyd 1901, 134 n. 1). It was decorated with four raised bands, the three upper ones decorated with incised chevrons, the lowest with incised vertical lines. She mentions an “amulet” around the neck of the jar, although it is uncertain what this description may mean; possibly she refers to a raised ridge or a plastic decoration. The description of the vessel suggests it was similar to those found in the earlier settlement at Vronda (e.g., Day, Klein, and Turner 2009, figs. 24, 89). She also reported that there were three small square holes cut on one side of the vase, one above the other, in the spaces between the bands. These she interpreted as either spigot holes (if cut in when the pithos had a domestic function) or as holes for the run-off of decomposition liquids (if they were cut in for use as a funerary vessel). Reuse of LM IIIC pithoi in later periods is well attested on Crete (Haggis et al. 2004, 354; Whitley 2011, 27–31).

The preserved assemblage is unusual. There is a striking number of small-mouthed vessels for pouring: an askos ([IV P5](#)), a stirrup jar ([IV P4](#)), a flask ([IV P8](#)), two bird vases ([IV P6](#), [IV P7](#)), two small pouring vessels, one a lekythos and the other a juglet ([IV P2](#), [IV P3](#)), and four jugs/oinochoai that were not located. A number of storage vessels were also found: the neck-handled amphora [IV P10](#), the necked jar [IV P9](#), and the two pyxides pictured on [Plate 7C](#). There was an unusual paucity of the drinking vessels generally found in the tombs: only two cups ([IV P1](#) and one not located), the deep bowl/skyphos, and the bell skyphos (the latter two pictured on [Pl. 7C](#)). A base of what might have been a cup or skyphos, however, found in the cleaning of the interior of the tomb ([IV P11](#)), suggests that a larger number of drinking vessels may once have existed.

From the dump came a large number of coarse vessels, including a krater, several pithoid jars, pithoi, and tripod cooking vessels. It is difficult to know if these were part of the tomb assemblage or remains from the LM IIIC settlement, which many of them closely resemble. In addition to the cup or skyphos ([IV P12](#)), the majority of the pottery fragments from the area in front of the tomb consists of large vessels: two or three kraters ([IV P13](#), [IV P16](#), [IV P17](#)), one with a pedestal base ([IV P16](#)), a kalathos ([IV P14](#)), and a jar ([IV P15](#)), possibly the remains of a funerary ritual involving feasting or drinking. One of the kraters ([IV P13](#)) is an unusual shape that finds a good parallel in a krater from the cemetery at Eleutherna (see below). The latter vessel, which is thought to be imported, possibly from Athens, bears a reserved panel decorated with a meander pattern and dates to Attic MG I, or roughly 850–800 B.C. The Vronda krater may suggest a late use for the tomb, perhaps from the time of the burial that included the decorated cup ([IV P1](#)).

Objects

Boyd found a number of metal objects in the tomb, seven of bronze and four of iron (Boyd 1901, 133 n. 2). She reports five fibulae, a ring, and a bracelet of bronze in the grave, in addition to fibula fragments and pieces of iron blades from within the pithos. Of the seven bronze objects found outside the pithos, five are still extant: four fibulae ([IV M1–IV M4](#)) and the bracelet ([IV M5](#)). Another broken bronze fibula and a ring measuring 2.00 cm in diameter are missing. The iron objects, including a spearhead with broad blade and another spear socket, as well as a sword handle and point measuring 14.00 cm in length, could not be found in the museum in 1979. It would appear, however, that there was at least one sword and one spearhead in the burial found by Boyd. Other objects were discovered in the course of cleaning the tomb. An iron fragment was picked up on the surface of VW 17100, just to the south of Tomb IV, but it is too fragmentary to identify or catalog. Two fragments of iron blades were found in the cleaning ([IV M8](#), [IV M9](#)); both of these seem to have single edges and are probably knives. An iron horseshoe or tool found in the cleaning is modern ([IV M10](#)).

Boyd found a soapstone whorl with two holes, but this was not located in the museum in 1979. A

fragment of a stone lid, however, was found in the area in front of the tomb (IV S1). From the dump came a fragment of an unusual stone bead with incised decoration (IV S2). She also found a clay whorl in the form of a truncated cylinder with two incised rings, measuring 1.80 cm in height and 2.00 cm in diameter, but it could not be located.

Chronology

The extant pottery is mixed in date, with vessels ranging from SM to LG, and it seems likely that this tholos was in use over a long period of time (although not necessarily continuously) from the late 11th to the 8th centuries. Of probable SM date are the askos (IV P5), two bird vases (IV P6, IV P7), and the flask (IV P8). The stirrup jar (IV P4) is of SM or EPG date. The lekythos (IV P2) is a well-known type at Knossos, beginning in PGB (Coldstream 1996, 356). The other juglet or aryballos (IV P3) is unusual, both in shape and decoration, but finds a parallel in a lekythos from Knossos of PGB date (Coldstream and Catling, eds., 1996, 142, pl. 142:55). Similarly, the large necked jar (IV P9) and neck-handled amphora (IV P10) find some parallels of LPG or PGB date. The cup (IV P1), however, is probably the latest vessel in the group, resembling LG cups, although its closest parallel in shape is a cup of PGB date at Knossos (Coldstream and Catling, eds., 1996, 6, fig. 56:35). The painted cross on the underside of the base, however, is a feature that appears on a number of LG cups and skyphoi, from the Plai tou Kastrou tomb at Kavousi (Tsipopoulou 2005, 102:H745, fig.115:H748, H749) and from other sites in East Crete (Tsipopoulou 2005, 180, fig. 89:Σ4030; 276, fig.115:AN1612; fig. 126:Σ3564); thus it suggests a LG date for this cup, although an example from Archanes (Sakellarakis 1986, 46, fig. 41) is of PGB–MG date.

While there are three vessels that may be late LM IIIC–SM in date, two of these are no longer extant, and the third is a fragment of a deep bowl from the cleaning (IV P11) that may have been in the soil and not part of the tomb assemblage. The majority of the vessels seem to be of SM or PG date, but the cup (IV P1) and the krater (IV P13) seem to be later, perhaps LG in date. It would appear that most of the four inhumations were made in the SM and EPG periods, with perhaps another in the later PG. It would be tempting to suggest that the LG cup was associated with a cremation burial in the

pithos, if indeed that is what the ash found by Boyd represents.

Catalog of Finds within Chamber

Pottery

FINE WARES

IV P1 (HM 1971; Fig. 13; Pls. 7C, 9). Cup. Intact; pick mark on lower belly. H. 6.2; d. rim 9.0–10.0; d. base 3.5. Fine, hard, reddish-yellow (5YR 7/6) fabric. Washy, reddish-brown (2.5YR 4/4) paint, well preserved. Out-turned rim has uneven diameter; rounded body, raised base, hollowed underneath. Band at rim; groups of vertical strokes just below rim band; bands on lower body; horizontal strokes on handle. Interior has broad bands, one below rim, one on lower body; short vertical strokes on interior of rim. Cross on underside of base. *Bibliography*: Boyd 1901, pl. I: middle row, right; Tsipopoulou 2005, 78, 427, fig. 126. *Comparanda*: Desborough 1952, 268, pl. 19:A 1472–A 1474 (possibly G); Tsipopoulou 2013, 152, 153, fig. 13:12309 (Piskokephalo, LG). *Date*: LG?

IV P2 (HM 1969; Fig. 13; Pls. 7C, 9). Lekythos. Intact but missing 75% of neck and rim. H. 10.5; max. d. 8.2; d. base 3.7. Fine, pink (7.5YR 7/4) fabric. Lustrous, thick, dark reddish-brown (5YR 2.5/2) paint. Worn surfaces. Wheelmade. Decoration of crosshatched triangles above narrow bands on shoulder. Horizontal strokes on handle top. *Bibliography*: Boyd 1901, pl. I: middle row, second from left; Tsipopoulou 2005, 78, 394, fig. 72 (LG). *Comparanda*: shape and decoration, Brock 1957, 157, pl. 26:355 (Knossos, PGB–MG); Coldstream and Catling, eds., 1996, 48, pl. 79:42 (Knossos, PGB). *Date*: LPG.

IV P3 (HM 1963; Fig. 13; Pls. 7C, 9). Juglet. Intact, though chipped at base and rim. H. 9.6; d. rim 2.9; d. base 3.7. Fine, rather soft, light red (2.5YR 6/6) fabric. Worn, light red (10R 6/8) paint. Traces of burning around lower handle attachment. Wheelmade. Bands on rim and base of neck. Decoration on shoulder: pendant triangle with multiple outlines and double outlined spiral with tail running from the top of the triangle and forming two double spirals; hatching in the space below the triangle. On lower body zone of alternating strokes; bands. Handle coated. Band on interior of rim. *Bibliography*: Boyd 1901, pl. I: middle row, fourth from left; Gesell, Day, and Coulson 1983, 397–399, fig. 4:7, pl. 76:e; Tsipopoulou 2005, 77, pl. 26 (PGB). *Comparanda*: for decoration, Coldstream and Catling, eds., 1996, 142, pl. 142:55 (Knossos, PGB); for shape, Coldstream and Catling eds., 1996, 47, pl. 78:11–13 (PGB). *Date*: PGB.

IV P4 (HM 1965; Fig. 13; Pls. 7C, 9). Stirrup jar. Intact. H. 13.7; max. d. 9.9; d. base 4.4. Fine, reddish-yellow (7.5YR 8/6) fabric. Paint entirely worn off, although shadow of decoration can still be seen. Spout leans to touch false neck; large knob on top of false spout. Crosshatched triangles on shoulder and three vertical lines that form

part of another motif. Bands on spout and false spout; top of false spout painted; barred handles. Bands on lower body. *Bibliography*: Boyd 1901, pl. I: bottom row, left; Gesell, Day, and Coulson 1983, 396–397, fig. 4:6, pl. 76:d; Tsipopoulou 2005, 77, pl. 28 (SM). *Comparanda*: Hayden 2003, 36, fig. 11:61 (Vrokastro, SM/EPG). *Date*: SM–EPG.

IV P5 (HM 1966; [Fig. 13](#); [Pls. 7C, 9](#)). Askos. Pres. h. 13.2; max. d. 10.7; d. base 4.2. Mended from seven fragments; missing spout. Fine, hard, very pale brown (10YR 7/3) fabric. Streaky, dull, very dark gray paint (10YR 3/1). Wheelmade. Hatched triangles with multiple outlines on shoulder, one on each side of vase. Wide and narrow bands on lower body. Vertical bands at base of spout; horizontal strokes on handle. Half of underside of base has paint. *Bibliography*: Boyd 1901, pl. I: bottom row, right; Gesell, Day, and Coulson 1983, 396–397, fig. 4:4, pl. 76:b; Tsipopoulou 2005, 78, pl. 29 (SM). *Comparanda*: Hayden 2003, 46, fig. 21:98 (Vrokastro, SM); Rethemiotakis and Englezou 2010, 46–47, fig. 24:47 (Elytyna, SM–EPG). *Date*: SM.

IV P6 (HM 1976; [Fig. 13](#); [Pls. 7C, 9](#)). Bird askos. Restored from seven fragments; tip of tail, fragments of body missing. H. 9.7; L. 14.5. Hard, fine, pink (7.5YR 7/4) fabric and slip. Lustrous, red (2.5YR 4/6) paint, worn on one side. Handmade except for base. Hole pierced through top near front handle attachment. Decoration on body within double outlines: double triangles between vertical bands (three groups of triangles on one side, four on the other). Handle barred on top; band around foot. *Bibliography*: Boyd 1901, pl. I: middle row, third from right; Desborough 1972, 253, no. 37, pl. ΔΔ' 1; Gesell, Day, and Coulson 1983, 396–397, fig. 4:5, pl. 76:c; Tsipopoulou 2005, 79 (SM). *Date*: SM.

IV P7 (HM 1975; [Fig. 13](#); [Pls. 7C, 9](#)). Bird askos. Intact. H. 10.5; L. 16.0. Fine, hard, pink (7.5YR 7/4) fabric. Lustrous, dark reddish-brown (5YR 2/2) paint. Handmade. Tiny hole at base of handle attachment. On upper body, crosshatched triangles with multiple outlines, separated by vertical rows of dots. Swags on lower body with bands under belly and tail. Handle barred on top; neck coated. *Bibliography*: Boyd 1901, pl. I: top, second from right; Desborough 1972, 253, no. 36, pl. ΔΓ' 4; Tsipopoulou 2005, 79, 439, fig. 143 (SM). *Comparanda*: Tsipopoulou 1997, 462, 470, fig. 5:4981 (Chamaizi Phatsi, SM); Day 2011b, 233–234, fig. 7.7:M11.2, pl. 26 (Karphi, SM). *Date*: SM.

IV P8 (HM 1962; [Fig. 13](#); [Pls. 7C, 9](#)). Lentoid flask. Nearly complete; missing 75% of rim and 50% of neck and badly cracked. H. 19.8; max. d. 15.1. Fairly hard, fine, pink (7.5YR 7/4) fabric. Lustrous, red (2.5YR 4/8) to black paint. Lentoid body, with conical knob in center of one side. Decorated with concentric circles; bands on neck; stripe down top of handle. *Bibliography*: Boyd 1901, pl. I: bottom row, third from left; Tsipopoulou 2005, 76, fig. 144 (SM); Karageorghis et al. 2014, 97 (Creto-Cypriot flask, SM). *Comparanda*: **II P1, II-VII-VIII P1**; Gjerstad 1948, fig. III:2c. (Cyprus, White Painted I); Tsipopoulou 1997, 469, fig. 12 (Chamaizi Phatsi, SM). *Date*: SM.

MEDIUM-COARSE WARES

IV P9 (HM 1959; [Fig. 14](#); [Pls. 7C, 10](#)). Large necked jar. About 70% preserved; missing 33% of shoulder and belly, part of rim. H. 25.5; d. rim. 11.0; d. base 13.0. Medium-coarse, rather soft, pink (5YR 8/4) fabric with stone and clay inclusions. Washy paint, very dark gray (5YR 3/1) on neck and interior, light red (2.5YR 6/6) below; worn on shoulder. Neck coated. On shoulder, large crosshatched lozenge slightly overlapping concentric circle. Groups of bands on lower body. Band across handles. Band on interior of rim. *Bibliography*: Boyd 1901, pl. I: top row, right. *Comparanda*: for shape, see Brock 1957, 24, pl. 14:206; 32, pl. 22:282 (Knossos, PG necked pithos); Sakellarakis 1986, 40–41, fig. 33 (Archanes, LPG); Coldstream and Catling, eds., 1996, 87, fig. 83:11 (Knossos, SM); 197, fig. 127:25 (SM); Tegou 2001, 130–131, figs. 23, 24 (Pantanassa, SM). *Date*: EPG.

IV P10 (HM 1961; [Fig. 14](#); [Pls. 7C, 10](#)). Neck amphora. Intact. H. 21.3; d. rim. 11.0–12.0; d. base 7.5–8.0. Medium-coarse, reddish-yellow (5YR 7/6) fabric. Light red (2.5YR 6/6) paint. Worn and eroded surfaces. Uneven. Flaring rim and neck; ovoid body; flat base; flattened handle from rim to shoulder. Probably monochrome except at widest diameter, which bears a reserved band with three wavy lines separated by bands. *Bibliography*: Boyd 1901, pl. I: top row, left; Tsipopoulou 2005, 76, pl. 24 (PG; identified as from Tomb VII). *Comparanda*: Brock 1957, 16, pl. 8:122 (Knossos, PG); Popham, Sackett, and Themelis 1979–1980, 111, pl. 93:5.2 (Lefkandi, SPG); Coldstream and Catling, eds., 1996, 197, fig. 125:26 (Knossos, EPG); Rethemiotakis and Englezou 2010, 37, fig. 17:28 (EPG); for decoration: Popham, Sackett, and Themelis 1979–1980, 110, pl. 92:pyre 1 A1 (Lefkandi, EPG). *Date*: PG.

Metal

BRONZE

IV M1 (HM 519; [Pl. 10](#)). Fibula. Intact. L. 8.0; h. 5.0. Asymmetrical arched bow, rhomboidal in section, with bulges at either end. Two disks above bulge near catch plate. *Bibliography*: Boyd 1901, 136, fig. 2: bottom; Blinkenberg 1926, 74, fig. 58:type II.18.a; Sapouna-Sakellaraki 1978, 52, pl. 8:223 (type Ii). *Date*: SM–PG.

IV M2 (HM 520; [Pl. 10](#)). Fibula. Nearly complete; point broken. L. 6.9; h. 4.5. Arched bow, rectangular in section. Blinkenberg 1926, 63, fig. 33:type II.3.b; Sapouna-Sakellaraki 1978, 47, pl. 5:147 (type Iic). *Date*: SM–PG.

IV M3 (HM 521; [Pl. 10](#)). Fibula. Nearly complete; small section of catch plate missing. L. 5.2; h. 3.4. Arched bow, flat in section. *Bibliography*: Boyd 1901, 136, fig. 2 (top, right); Blinkenberg 1926, 64, types II.4e, II.4p; Sapouna-Sakellaraki 1978, 48, pl. 6:172 (type II d). *Date*: SM–PG.

IV M4 (HM 522; [Pl. 10](#)). Fibula. Intact. L. 5.8; h. 3.7. Arched spiral bow with square catch plate. *Bibliography*: Boyd 1901, 136, fig. 2 (top, left); Blinkenberg 1926, 66,

fig. 42:types II.9a, II.9p; Sapouna-Sakellaraki 1978, 50, pl. 7:203 (type II f). *Date*: SM.

IV M5 (HM 523; **Pl. 10**). Bracelet. Complete, but bent. D. 7.0. Wire bracelet with twisted coils around ends. *Bibliography*: Boyd 1901 136, fig. 3. *Comparanda*: Effinger 1996, 151–152, pl. 25:b, c (Armenoï, LM IIIB).

Catalog of Finds from Tomb Cleaning

Pottery

FINE WARE

IV P11 (**Fig. 14**). Cup or skyphos. Two joining fragments preserving entire base. D. base 4.2. Fine, soft, light red (2.5YR 6/6) fabric, with very pale brown (10YR 8/3) surface. String marks on bottom of base. *Date*: PG?

Catalog of Finds from Area in Front of Tomb

Pottery

FINE WARES

IV P12 (**Fig. 14**). Cup or skyphos. Single fragment from rim. D. rim est. 12.1. Fine, soft, reddish-yellow (5YR 7/8) fabric, worn and encrusted. Light red (10R 6/8) paint. *Bibliography*: Gesell, Day, and Coulson 1983, 397–399, fig. 4:8 (emended). *Date*: LM IIIC?

IV P13 (**Fig. 14**). Krater. Partially mended from 35 fragments, preserving 25% of vessel, including one handle; missing base. D. rim est. 30.0. Fine, very soft and chalky, very pale brown (10YR 8/4) fabric. Traces of black paint on exterior. *Comparanda*: Coldstream and Catling, eds., 1996, 136, fig. 104:100.65 (Knossos LPG-PGB); Stampolidis, ed., 2004, 242:267 (Eleutherna, Attic? MG I); Johnston 2005, 373–374, fig. 33:239 (Kommos, fifth or fourth century); Kotsonas 2008, 184–186, fig. 44:A 209 (Eleutherna, PGB-EG). *Date*: PG-EG.

IV P14 (**Fig. 14**). Kalathos. Single fragment from rim with part of excrescent cup. Soft, light red (2.5YR 6/8) fabric with worn surfaces, yellow (10YR 8/6) slip. Traces of black paint. *Comparanda*: Brock 1957, 162, pl. 78:1429 (Knossos, EPG); Coldstream and Catling, eds., 1996, 51, fig. 72:110; 198, pl. 185:36 (Knossos, EPG-MPG). *Date*: PG.

MEDIUM-COARSE WARES

IV P15 (**Fig. 14**). Jar. Two joining fragments from rim and single nonjoining fragment from round horizontal handle. D. rim est. 24.0–26.0. Medium-coarse, reddish-yellow (7.5YR 7/6) fabric with some pebble and clay inclusions. Pulled out rim; ridge at base of vertical neck. Monochrome black paint on exterior. Worn surfaces. *Comparanda*: Coldstream and Catling, eds., 1996, 92, fig. 86:6 (Knossos, EPG early). *Date*: PG.

IV P16 (**Fig. 14**). Pedestal base. Five joining and two nonjoining fragments preserving 25% of base. D. base 18.0. Medium-coarse, reddish-yellow (5YR 7/6) fabric with frequent tiny red phyllite inclusions; reddish-yellow (7.5YR 8/6) slip. Red (2.5YR 5/8) paint. Flaring base with simple rounded lip. Bands at base, wavy band above. Possibly from krater, oinochoe, or hydria. *Comparanda*: Coldstream and Catling, eds., 1996, 5, fig. 57:13 (Knossos, LPG); Tsipopoulou 2005, 115, fig. 81:H1954 (Skouriasmenos, LG-EO). *Date*: PG.

COARSE WARES

IV P17 (**Fig. 14**). Necked jar. Three fragments from rim, one fragment from round horizontal handle. D. rim 22.0. Coarse, reddish-yellow (5YR 6/6) fabric with phyllites and quartz. Reddish-brown (5YR 4/4) paint. Painted band on neck. *Date*: PG?

Stone

IV S1 (**Fig. 14**; **Pl. 10**). Lid. Half preserved, including knob in middle. D. 4.60; th. 0.70 (edge)–0.11 (middle). Serpentine. Small, flat lid with small knob in center. *Comparanda*: Warren 1969, 68, 69, 259:27.D185; Day and Glowacki 2012, 145, fig. 119:L1 S1. *Date*: EM II–MM IB/II.

Catalog of Finds from Boyd's Dump

Pottery

MEDIUM-COARSE WARES

IV P18 (**Fig. 15**). Stirrup jar or amphoriskos. Single fragment preserving entire base. D. base 3.6. Medium-coarse, yellowish-red (5YR 4/6) fabric with mottled surface, like Kavousi Type IV (Haggis and Mook 1993), with some phyllites and white bits. *Comparanda*: Coldstream and Catling, eds., 1996, 50, fig. 72:107 (LPG bell skyphos); 69, fig. 76:19 (Knossos, SM-EPG stirrup jar). *Date*: PG.

Metals

BRONZE

IV M6 (IV dump 3, object 1; **Fig. 15**; **Pl. 10**). Pin. Single fragment; neither end preserved. Max. pres. L. 2.2; th. 0.2. Well preserved, although surface slightly corroded.

IV M7 (V88.144; IV dump 2, object 1; **Fig. 15**; **Pl. 10**). Ring. Intact. D. 1.90–2.00; d. wire 0.15. Single piece of bronze wire, bent and coming together to form ring. One end overlaps the other where they meet. Wire is round in section. Surfaces well preserved.

IRON

IV M8 (IV dump 4, object 1; **Fig. 15**). Iron knife. Single fragment from blade. Max. pres. L. 2.30; max. pres. w. 1.90; th. 0.19–0.21. Surface corroded.

IV M9 (IV dump 2, object 2; Fig. 15). Iron knife or sickle. Two joining fragments from blade. Max. pres. L. 3.10; max. pres. w. 1.50; th. 0.15–0.30. Blade has slight curve on inner edge to make it appear sickle-like. Corroded; no original surface left.

IV M10 (Fig. 15). Iron horseshoe. Single fragment preserving half of object. Max. pres. L. 7.5; max. pres. w. 3.0; th. 0.2. Large flat object, leaf shaped. Square holes along one edge at flat end. Surface well preserved. Probably modern; not much corrosion.

Stone

IV S2 (V88.151; IM 1009; IV, dump 3, object 4; Fig. 15; Pl. 10). Stone bead. Half of bead preserved, neatly sliced through middle. H. 1.4; w. est. 1.2; d. hole 0.3; wt. 2.0 g. Light brownish gray in color (2.5Y 6/2). Pyramidal in shape with square bottom and rounded corners. Incised decoration on four sides. Side A has outlined edges with X in center; side B has groups of oblique strokes. Sides C and D have possible triangles.

Vronda Tomb V (Boyd's Tomb C)

Boyd found this tomb entirely empty (Boyd 1901, 133). During cleaning in 1981 some pottery fragments were found, but no other objects or human bones were observed (Gesell, Day, and Coulson 1983, 401).

Architecture and Features

Vronda V is the best preserved of all the extant tombs, rising 1.74 m in six to seven courses almost to the keystone (Fig. 16; Pl. 11A); only one or two courses are missing. The floor plan is square, measuring 1.80 x 1.84 m (Fig. 17), and the corners begin to round out in the second or third course. The bottom course consists of very large stones, while those in the second course are both large and small; much limestone was used in these two lower courses. The upper courses are generally built of large breccia boulders, with some smaller stones used as chinking. The floor is *tsakali* bedrock. The stomion, which faces south, is well preserved, measuring 0.50 m in height, 0.68 m in width, and 0.80 m in depth. The large lintel block measures 0.83 x 0.26 m. The floor of the stomion slopes downward into the chamber. The facade of the stomion is made up largely of flat limestone blocks laid in three courses, with courses of small stones set between them, for a total of five courses. In front of the stomion and its facade, a pit was cut into the bedrock, and two stones from the facade project out to form a pseudo-dromos.

Stratigraphy

There were many large stones fallen into the chamber, two of which were so huge that they could not be easily removed and so were left in place. Neither

the stomion nor the pseudo-dromos had been excavated. The stomion was found blocked with two large thin slabs and hard soil, as in the other tombs. The pseudo-dromos, which was a pit dug out of the bedrock, contained a few flat stones at the level of the lintel block. More soil had been laid above these, and finally a pile of stones was heaped over the pseudo-dromos, marking the location of the entrance.

Burials

Vronda V was empty when first discovered by Boyd. No human bone was recovered from this tomb by the Kavousi Project.

Faunal Remains

Two animal bones were recovered from the dromos: an immature sheep or goat lumbar vertebra, which had been split vertically through the vertebral body, and a second sheep or goat element, an unfused metapodial diaphysis segment from a young animal (Table 2).

Pottery and Chronology

Very little pottery was recovered that could help date the tomb or shed light on funerary customs. From the cleaning within the tomb came the deep bowl or skyphos (V P1). The handles on this vessel are set much higher than is customary with the SM or EPG bell skyphos; although this feature exists at Knossos in the EPG period (Coldstream and Catling, eds., 1996, 197, fig. 125:23), it is not common. The Vronda fragment may be from a LM IIIC

deep bowl that belonged to the time of the original burials in the tomb, or it could have been an antique or a fragment that became embedded in the soil at the time of construction. The pithos fragment (**V P3**) is the latest vessel from this tomb, probably LG in date. Although the crosshatched lozenge chain is a common PG motif, the outlined solid lozenge chain seems to occur on LG–EO vessels from Knossos (Brock 1957, 173, motif 5ai). The other motif, alternating pendant and accumbent rectangles, may be a form of meander pattern, as the effect is of a reserved meander; a similar pattern can be seen on MG vessels from Knossos (Coldstream and Catling 1996, eds., 236, pls. 217:91; 269, 250:224). The use of a meander, even an unusual one, places the vessel in the Geometric period, and the lozenges suggest a LG date. Of the vessels from the pseudo-dromos, the pyxis is probably either an antique placed in the tomb or a fragment embedded in the soil at the time of construction. It is an unusual shape but has two parallels from the LM IIIC settlement, and it is probably LM IIIC in date. Some Byzantine fragments with incised wavy lines were also found.

Catalog of Finds from Interior of Tomb

Pottery

FINE WARES

V P1 (Fig. 18). Deep bowl or skyphos. Single fragment from rim and handle. D. rim est. 16.0. Fine, soft, reddish-yellow (5YR 7/6) fabric with small phyllites and some carbonates. Very light, yellowish-brown (10YR 6/4) slip. Traces of black paint. Very worn on exterior.

Monochrome interior, paint on exterior. *Bibliography*: Gesell, Day, and Coulson 1983, 401, 402, fig. 6:V9. *Comparanda*: Day 2011b, 93–94, fig. 4.7:K23.34 (Karphi, LM IIIC); 201–202, fig. 6.16:K106.9 (Karphi, LM IIIC); Day and Glowacki 2012, 81, fig. 77:IC1 P8 (Vronda settlement, LM IIIC). *Date*: LM IIIC

V P2 (Fig. 18). Cup or deep bowl. Single fragment from rim. D. rim est. 14.0. Fine, reddish-yellow (5YR 7/6) fabric and slip. Black paint on interior and exterior. Monochrome. *Comparanda*: Day 2011b, 205–206, fig. 6.18:K115.2 (Karphi, late LM IIIC). *Date*: LM IIIC.

V P3 (Pl. 11B) Pithos. Large fragment from upper belly and shoulder represented by nine nonjoining body fragments. Max. pres. h. 12.0; max. pres. w. 2.6; th. 1.5. Well-fired, reddish-yellow (5YR 7/6) fabric with small pebble and clay inclusions. Reddish-yellow (5YR 7/6) slip. Black paint. Only slightly worn surfaces. Wheel ridging on interior. Decoration of black rectangles with thick bands above and below; framed and connected lozenges below this and thin bands. Other fragments (both from the tomb and the dromos) are monochrome black. *Bibliography*: Gesell, Day, and Coulson 1983, 401, pl. 76:f V10. *Comparanda*: Coldstream and Catling, eds., 1996, 36, fig. 68:11; 78, fig. 80:28.9 (Knossos, PGB). *Date*: LG.

Catalog of Finds from Pseudo-Dromos

Pottery

MEDIUM-COARSE WARE

V P4 (Fig. 18). Pyxis. Single fragment from rim. D. rim est. 20.0. Fine, very pale brown (10YR 8/4) fabric, pale yellow (2.5Y 8/4) slip on exterior only. Washy light red (2.5YR 6/8) paint on exterior, perhaps crosshatched or piled triangles. No paint on interior. *Comparanda*: Day and Glowacki 2012, 91, fig. 83:IE P3; 97, fig. 86:O1 P17. *Date*: LM IIIC.

Vronda Tomb VI (Boyd's Tomb D)

Boyd also found Tomb VI empty (Boyd 1901, 133). During the cleaning and excavation of the stomion and pseudo-dromos (Gesell, Day, and Coulson 1983, 401), a few fragments of pottery and bones were recovered from the tomb and dromos.

Architecture and Features

Vronda VI has a chamber that is roughly circular in plan, with a diameter of 1.70–1.90 m, and is well preserved to a maximum height of 1.70 m, with four courses on the north and eight courses on the

southeast (Fig. 19). The walls are constructed almost entirely of breccia, with little use of limestone except in the facade. Bedrock serves as the floor of the tomb. The stomion is on the west, with a large lintel block of limestone supported by an upright slab at each side, limestone on the south and breccia on the north (Pl. 11C). It measures 0.56 m in width, 0.50 m in height, and 0.80 m deep. The floor slopes down from the entrance of the stomion to the floor of the chamber. A pit, 0.90 m long, was cut

into the *tsakali* bedrock in front of the stomion and served as a pseudo-dromos.

Stratigraphy

The stomion and pseudo-dromos had not been previously excavated. As with other tholoi at Vronda (Tombs I, II, and V), the stomion was blocked with stones, in this case three flat stones with hard-packed brown soil surrounding them. The pseudo-dromos was filled with a light brown soil with medium-sized stones, and in front of the stomion at the level of the bottom of the lintel were two large flat stones, like those found in Vronda II and V (Pl. 11D). Above this flat stone was more dirt and a pile of stones that marked the location of the entrance.

Faunal Remains

Twenty animal bones, a relatively large number, were recovered during cleaning of this tholos (Table 2). From a rabbit, there was a single front limb element, a left proximal ulna. Seventeen sheep or goat bones, primarily those of domestic goat

(*Capra hircus*), included a goat left horn core segment, chopped through the base, and a right maxilla fragment with dentition that probably came from the same animal. Also identifiable as goat were a left distal humerus with cut marks on the medial diaphysis and a left metacarpal with a partially fused distal epiphysis. Additional skeletal elements from a young animal were four cervical vertebrae and two thoracic vertebrae, all with unfused articular plates, and a right proximal rib. There was also a left scapula, a left innominate portion, and two left proximal femur fragments. In addition, two domestic dog elements, a left proximal scapula fragment, and a left proximal humerus diaphysis segment were recovered from this area.

Pottery

Boyd found no pottery, objects, or bones in this tomb. A few sherds were recovered from the chamber, stomion, and pseudo-dromos. None of these vessels is closely identifiable or datable.

Vronda Tomb VII (Boyd's Tomb 4)

Tomb VII was poorly preserved and consisted only of a lintel and a few stones that formed the side of the dromos (Boyd 1901, 134). Boyd recovered 18 vases and a number of bronze and iron objects (Boyd 1901, 134–135). Four of the 18 vases, which she described as among the best pieces from Vronda, can be identified from the labels written on them; others may be pictured on Plate 5A (Boyd 1901, pl. II). Of the metal objects, only one fibula could be found. The tomb was not located in 1981, although its approximate position was clear from Boyd's plan. When Tomb XI was uncovered under a pile of stones in 1990, it was thought to be this missing tomb, and it was so labeled in the preliminary report (Gesell, Day, and Coulson 1995, 91–92). However, the good preservation of Tomb XI made it clear that it could not have been the remains of Boyd's tomb 4. A lintel block and two uprights built into a modern terrace was later observed just east of Tomb XI and may be all that was left of Tomb VII (Pl. 12A).

Pottery

Of the 18 vases reported by Boyd from this tomb, only four are extant; some of the vessels shown in her publication (Pl. 5A) also came from this tomb, but it is now impossible to determine which ones. The four preserved vessels include a bowl (VII P1), a jug (VII P2), a stirrup jar (VII P3) and a necked jar (VII P4). Stylistically, the bowl and jug seem to belong together, while the stirrup jar and necked jar appear earlier than the other two (Fig. 20).

Objects

Boyd found the following objects in this tomb: a bronze fibula, two bronze rings (one measuring 2.50 cm in diameter, with small hooked pins and a knob at the middle of the hoop, the other of the same size and with one hook broken), a broken bronze hairpin 7.20 cm in length, two bronze fragments shaped like fishhooks, three pieces of broken bronze plates with indented pattern and holes for fastening (cf. GR9

M5–GR9 M12; this vol., [Ch. 3](#)), other fragments of bronze and iron, and a soft soapstone whorl with a diameter of 2.00 cm. Only the fibula was found in the Herakleion museum in 1979 (**VII M1**; [Pl. 12B](#)).

Chronology

The pottery from Tomb VII is mixed in date, suggesting that it was used over a long period of time. The earliest vessel is the stirrup jar **VII P3**, which is SM in style. The necked jar **VII P4** is probably EPG, to judge from the decoration; while the wavy line is common enough on both SM and PG vessels, the compass-drawn circles are a sign of the PG style, and the hatched triangle is also found more in MPG–LPG pottery (Brock 1957, 171, motif 4j). The bowl **VII P1** is highly unusual, and no close parallels exist. At Knossos there are some similar vessels: a bowl of PGB–EO date (Coldstream and Catling, eds., 1996, 217, fig. 132:81), several skyphoi of PG date (Brock 1957, 165, pl. 62:1044; pl. 78:1539) and at least one cauldron-krater of PGB–EG date (Coldstream and Catling, eds., 1996, 21, fig. 62:117). The most likely stylistic date for this bowl would be later PG or G. The jug **VII P2** is also difficult to place chronologically; Metaxia Tsipopoulou dated it to PGB (2005, 78), but Coldstream (pers. comm.) suggested that it looked 7th century. Both the bowl and the jug are certainly later than the stirrup jar and necked jar; it is possible that they are the remains of a later postfunerary ritual left in the dromos of the tomb, perhaps when the Vronda site was again used extensively for burial in the late eighth or early seventh century.

Catalog

Pottery

FINE WARES

VII P1 (HM 3692; [Fig. 20](#); [Pls. 5A, 12B](#)). Bowl. Intact, but cracked along one side. H. 9.1; d. rim 15.2; d. base 5.5. Soft, very pale brown (10YR 8/4) fabric, well fired. Worn paint; reddish-yellow (7.5YR 8/6) surface marks where black paint once was. Nearly horizontal rim rounds into conical body; two flat horizontal handles pinched out at widest diameter; flat base. Interior very uneven. Bands on body; short strokes on top of rim. Handles and interior coated. *Bibliography*: Boyd 1901, pl. II: bottom row, right; Gesell, Day, and Coulson 1983, 402–403, fig. 6:VII.18, pl. 77:a; Tsipopoulou 2005, 79, pl. 34 (LG). *Comparanda*: for shape, Coldstream 1972, 95, pl. 28:G101 (Knossos,

EG–early MG); Rocchetti 1988–1989, 227–228, fig. 141:142 (Kourtes); Coldstream and Catling, eds., 1996, 217, fig. 132:81 (PGB–EG). *Date*: PG?

VII P2 (HM 1970; [Fig. 20](#); [Pl. 12B](#)). Cylindrical-mouthed jug. Nearly complete, including lower handle attachment; missing handle. H. 12.0; max. d. 10.0; d. rim 3.5; d. base 3.4. Fine, hard, very pale brown (10YR 8/4) fabric. Paint almost entirely worn off. Vertical rim and short neck; globular body; single ovoid vertical handle; raised base, slightly hollowed underneath. Possible band at rim and base of neck. On shoulder: possible vertical panel of crosshatching and crosshatched triangle. Faintly preserved bands on lower body. *Bibliography*: Gesell, Day, and Coulson 1983, 401–402, fig. 6:V12, pl. 77:h; Tsipopoulou 2005, 78, pl. 30 (PGB). *Comparanda*: for shape, Platon 1955, 296, fig. 111α (third from left; Sphakia, PG); Rizza and Scrinari 1968, 16, fig. 25 (Gortyn, PG). *Date*: PGB–EO.

VII P3 (HM 1964; [Fig. 20](#); [Pls. 5A, 12B](#)). Stirrup jar. Intact. H. 11.7; max. d. 11.0; d. base 4.3. Fine, rather soft, pink (7.5YR 7/4) fabric with dark inclusions, slipped. Lustrous, black (7.5YR 2/0) paint, now worn. Low false spout with knob on top; short spout with flaring rim, tipped back slightly to meet false spout; globular-ovoid body; ring base. Hole pierced through top of false spout. Bands on false spout, concentric circles on top. Handles solidly painted. Shoulder zone: groups of four piled triangles. Bands on lower body. *Bibliography*: Boyd 1901, pl. II: bottom row, second from right; Tsipopoulou 2005, 77, pl. 27 (SM). *Comparanda*: Catling 1968, 118–119, fig. 6:25 (SM–EPG); Coldstream and Catling, eds., 1996, 69, fig. 76:20 (Knossos, SM–EPG); 183, fig. 119:160.1 (SM). *Date*: SM.

VII P4 (HM 1960 bis; [Fig. 20](#); [Pls. 5A, 12B](#)). Large necked jar. Restored; mended from 10 fragments; small section of rim missing. H. 14.1; d. rim 8.8; d. base 6.3. Soft, reddish-yellow (5YR 7/6) fabric. Faded, light red (2.5YR 6/6) paint, very worn. Flaring rim and wide flaring neck; two round horizontal handles set high on shoulder; globular body; flat base, slightly hollowed underneath. Band at rim. On neck, hatched triangles above band. On shoulder, compass-drawn concentric circles above band. Wavy line on lower belly, band at base. Band on interior of rim. *Bibliography*: Boyd 1901, pl. II: bottom row, third from left; Gesell, Day, and Coulson 1983, 401–402, fig. 6:VIII.1, pl. 76:g; Tsipopoulou 2005, 76, pl. 23 (PGB). *Comparanda*: **GR28 P22**; Coldstream and Catling, eds., 1996, 87, fig. 83:11 (Knossos, SM). *Date*: PG.

Metal

BRONZE

VII M1 (HM 518; [Pl. 12B](#)) Fibula. Nearly complete; catch plate and point broken. L. 9.5; h. 5.2. Arched bow, flat in section. Blinkenberg, 1926, 63, type II.4c; Sapouna-Sakellaraki 1978, 47, pl. 5:149 (type II c). *Date*: SM.

Vronda Tomb VIII (Boyd's Tomb 2, Grave 18)

Boyd found only 10 vases and a few objects of metal in this poorly preserved structure (Boyd 1901, 133, pl. 2; Gesell, Day, and Coulson 1983, 401–403). Of the 10 vessels, only one can be identified; the others may be illustrated on [Plate 5A](#). Tomb VIII was not located in 1981, but it was uncovered in the 1988 excavations in Building L-M (Gesell, Coulson, and Day 1991, 160–161). At that time it was labeled grave 18, but it was subsequently identified as Boyd's tomb 2. The tomb had apparently been re-filled in the years following Boyd's excavations.

Architecture

Only the bottom two courses of the tomb walls were preserved to a height of 0.50 m ([Fig. 21](#); [Pl. 13A](#)). At the base, the plan is nearly square, 2.00 m on each side, although the corners round out everywhere except on the southwest. Much of the lower part of the tomb was constructed of limestone blocks, with some breccia, while the upper preserved courses contain more breccia. The floor is of bedrock. The facade is not preserved, but the tomb has a wide stomion, 0.70–0.75 m wide and 0.75 m deep; only two courses are preserved, to a height of 0.55 m. The stomion was built of large, regularly shaped limestone blocks. No lintel block was preserved, but a single large, flat stone still remained from the blocking of the entrance. ([Pl. 13B](#)). A pit was cut into the bedrock in front of the door, extending in an oval about 0.83 m to the north, and this served as a pseudo-dromos. This tomb cut through the floor of Building L, Room L2 and may have disturbed other rooms as well. Building Complex L-M must have been out of use when the tholos tomb was constructed, and it is likely that the whole settlement had already been abandoned at that time.

Stratigraphy

A small amount of very hard soil still remained at the bottom of the tomb around the edges (V 7613.6), as well as in the stomion (V 7613.2, V 7614) and in the pit in front of the entrance (V 7617). In the stomion, a large flat stone was all that remained of the blocking ([Pl. 13B](#)). Behind this stone, articulated animal bones were uncovered. This material probably belongs to the blocking up of the doorway of the

tomb during the last burial. The pit was filled with soil similar to that found in the stomion, and there were stones above the pit, as seen in the other tholoi ([Pl. 13C](#)). A crumbly, soft, loose brown soil with stones (yellowish brown, 10YR 5/4) was removed from the interior of the tomb (V 7102, V 7612, V 7613). Overlaying the tops of the walls of the tomb was the same sort of soil, but slightly harder (V 7601, V 7602, V 7603, V 7606). If we are correct in the identification of this tomb as Tomb VIII (Boyd's tomb 2), this soil represents filling in of the tomb subsequent to Boyd's excavation. It is likely that the soil initially removed from the tomb by Boyd and dumped nearby was thrown back in, perhaps with some other material from the surrounding area of Building L. Very little material was found that post-dates the LM IIIC settlement.

Burials

There were remains of four burials found in this tomb.

Burial 1

Type: disturbed inhumation
Age: juvenile, 1–2 years
Sex: unknown

Burial 1 is the scant remains of the skeleton of a very young child, aged one to two years old on the basis of fragmentary dentition.

Burial 2

Type: disturbed inhumation
Age: juvenile, 10–16 years
Sex: unknown

Burial 2 is a child or an adolescent aged less than 16 years, as indicated by the size of the bones and the unfused epiphyses on the iliac crest and proximal humerus.

Burials 3 and 4

Type: disturbed inhumations
Age: adults
Sex: male(?), unknown

Burials 3 and 4 are the commingled remains of two older adults, one of which was probably a male. The age estimation is based on cranial suture

closure and one auricular surface, but no specific traits were preserved well enough to permit further evaluation.

Faunal Remains

The hard soil around the edges at the bottom of the interior (V 7613.6), in the stomion (V 7613.2, V 7614), and in the pseudo-dromos (V 7617) contained some animal bones that may have belonged with the burials (Table 2). Five sheep or goat bone fragments were recovered from the bottom of the tholos. A single right calcaneum could be further identified as coming from a domestic goat. Two isolated teeth (a right first molar and left deciduous fourth premolar), a left scapula proximal articular segment, and a left tibia proximal diaphysis segment were also recovered. Two intrusive rat elements, a right mandible with dentition and a right ilium, are likely to have been later than the other faunal remains.

The fill over the tomb contained remains of sheep/goat, pig, cattle, rabbit, and dog; these are likely to have come from the earlier settlement and were published with that material (Day and Glowacki 2012, 144, table 20). The fill in the pit in front of the stomion contained one limpet (*Patella*) shell (Table 3). Other shells in the fill of the tomb included two more limpets, a trough shell (*Mactra corallina*), and a topshell (*Phorcus*).

Pottery

Among the pottery from Tomb VIII is a stirrup jar, **VIII P1** (Fig. 22), which is of an unusual shape and may be the earliest vessel in the tomb. It is angular, but not as squat as the LM IIIB squat stirrup jar (Kanta 1980, 246–248), and it has a high foot. The decoration, however, looks LM IIIC or later. The decoration is similar to an example from Gypsades tomb V1A (Hood et al. 1958–1959, 247, 242, fig. 28:VIA 2) that was dated to LM IIIA:2, but similar decoration, although often more angular than in this case, can be found surviving into SM or even PG times. Stirrup jar **VIII P1** may date to the LM IIIC period, or it may represent an earlier vessel deposited with the dead; there is evidence for the use of earlier vessels, whether valuable family heirlooms or simply antiques, deposited in the later cremation burials (see below, pp. 348–350).

Very little pottery actually remained within the soil left in the tholos, and all of the extant material was in small fragments (Fig. 22). Most of the other

pottery in the tomb was of LM IIIC date, and it may belong to the time of construction, or it could have been in the soil at the time the tholos was built. As the tomb clearly postdates the use of Building Complex L-M, because it cut into Building L, these fragments are more likely to have been material in the soil at the time of the construction. There were six deep bowl or cup fragments (**VIII P2**, **VIII P4–VIII P8**), a fragment from the foot or stem of a LM IIIC goblet or a later stemmed skyphos (**VIII P9**), a decorated kalathos (**VIII P3**), a fenestrated stand (**VIII P11**), and a cooking dish (**VIII P10**). None of the material except for the possible stemmed skyphos looks later than LM IIIC, although the kalathos (**VIII P3**) does not fit into the settlement material and may be later. This material was probably in the soil and does not represent the period of use of the tomb, as the tomb cuts through the walls and floor of Building L.

Objects

A number of metal artifacts were found by Boyd, including a bronze hairpin, a broken bronze fibula, a bronze fragment that was shaped like a fishhook but was probably the end of a pin or ring, an iron hilt, and fragments of an iron blade. None of these objects were located in the Herakleion museum in 1979. Several objects, however, were recovered in the 1988 excavations in the area of Building L-M. The bronze pin (**VIII M1**; Fig. 20) was probably left over from the burial. A fragment of an iron spear (**VIII M2**; Fig. 20) from the surface of V 7700 is likely to belong with this burial, and it may have been part of the iron hilt and blade found by Boyd. Fragments of a thin bronze band were also found in V 7613.7. Although these were not inventoried because they were very thin and poorly preserved, they may represent the remains of a band on a spear socket, as seen on **GR12 M26** (see below, p. 123). It is possible that both a spearhead and a sword or dirk were represented in the burial, or that all of the iron, including those items recovered by Boyd, belonged to the iron spearhead found in the 1988 excavations.

Chronology

The stirrup jar **VIII P1** is probably of LM IIIC date. Although it has the cone on top of the false spout that is usually considered a late feature, found in LM IIIC and later stirrup jars (Popham 1965, 320; Kanta 1980, 247; Hallager 2007, 190), the spout is

not pulled back to meet the disk top, a feature that appears on SM and EPG examples but is not common in LM IIIC (Day 2011b, 291). The decoration, in which the top is divided into quadrants with filled triangles, can be found on LM IIIC, SM, and EPG pottery, but the later examples regularly have more rectilinear filling, not the curved loops found on the Vronda example. All the evidence points to a date in LM IIIC for this example. Because this tomb cuts into LM IIIC Building L, however, a building that was in use with the rest of the settlement in late LM IIIC (Day and Glowacki 2012, 161), it is likely that this stirrup jar was an earlier piece, possibly an antique or heirloom deposited in the tomb, and it should not be taken as an indication of the date of the burial, but only as a terminus post quem for the use of the tomb. All the other material found in the cleaning of the edges of the tomb and in the stomion is fragmentary and dates to LM IIIC. These fragments most likely represent pieces that were in the soil left over from the settlement and incorporated into the construction of the tomb.

Catalog of Finds from Interior of Tholos

Pottery

FINE WARE

VIII P1 (HM 1968; Fig. 22; Pls. 5A, 13D). Stirrup jar. Restored; fragments of body and rim of spout missing. H. 11.2; max. d. 12.0; d. base 4.3. Fine, soft, very pale brown (10YR 7/3) fabric. Very pale brown (10YR 7/3) slip. Worn, black (10YR 2/1) paint. Irregular in shape. Short spout; false spout with wide disk and knob on top; small hole pierced at base of false spout; globular-biconical body; raised base, hollowed underneath. Concentric circles on top of false spout; band around base of spout and vertical row of dots down front of spout. Shoulder divided into four areas, each with a triangle with concentric arcs in angles. Horizontal strokes on handles. Two groups of three or four bands on lower body. *Bibliography*: Boyd 1901, pl. II: middle, second from right; Gesell, Day, and Coulson 1983, 402–403, fig. 6:V14, pl. 77:b. *Comparanda*: for shape and decoration, Hood et al. 1958–1959, 242, 247, fig. 28:VIa.1 (Gypsades, LM IIIA:2); Kanta 1980, 246–248, fig. 125:11 (Episkopi, end of LM IIIB or beginning of LM IIIC). *Date*: LM IIIC.

Metal

BRONZE

VIII M1 (V88.140; V 7613.6, object 1; Fig. 22; Pl. 13D). Pin. Single fragment from bulb near end of pin. Missing both ends. Max. pres. L. 3.4; d. 0.2; d. bulb 0.6.

Well preserved. Originally long straight pin with bulb near top. *Comparanda*: GR12 M2.

Catalog of Finds from Stomion (V 7613.2, V 7614) and Pseudo-Dromos (V 7617)

Pottery

FINE MONOCHROME WARE

VIII P2 (V 7614.3; Fig. 22). Deep bowl or cup. Single fragment from rim. D. rim est. 10.0–11.0. Fine, soft, pink (5YR 7/4) fabric with tiny red phyllite inclusions. Dark reddish-gray (5YR 4/2) paint. Very worn surfaces. *Comparanda*: Day, Klein, and Turner, 2009, 154, fig. 105:K4 P5 (LM IIIC). *Date*: LM IIIC.

MEDIUM-COARSE WARE

VIII P3 (V 7617.2; Fig. 22). Kalathos. Single fragment from rim. D. rim est. 32.0. Medium-coarse, soft, reddish-yellow (5YR 7/6) fabric with red phyllite inclusions. Very pale brown (10YR 8/4) slip. Red (2.5YR 4/6) paint. Worn surfaces. *Date*: LM IIIC or PG?

Catalog of Finds from Fill within Tomb

Pottery

FINE DARK-ON-LIGHT WARES

VIII P4 (V 7612.5; Fig. 22). Deep bowl or cup. Single fragment from rim. D. rim est. 13.0. Fine, soft, reddish-yellow (5YR 7/6) fabric. Very pale brown (10YR 8/4) slip. Dark reddish-brown (5YR 3/4) paint. Very worn surfaces. Traces of a curvilinear decoration. *Comparanda*: Day, Klein, and Turner 2009, 30, fig. 17:AE P24 (LM IIIC); Day and Glowacki 2012, 148, fig. 121:L2 P11 (LM IIIC). *Date*: LM IIIC.

VIII P5 (V 7613.7; Fig. 22). Deep bowl or cup. Single fragment from rim. D. rim est. 13.0–14.0. Fine, soft, reddish-yellow (7.5YR 7/6) fabric, gray (5Y 6/1) at core. Red (2.5 YR 4/8) paint. Very worn surfaces. *Comparanda*: Day and Glowacki 2012, 169, fig. 133:WS P4 (LM IIIC). *Date*: LM IIIC.

VIII P6 (V 7102.3; Fig. 22). Deep bowl or cup. Single fragment (two sherds) from rim. D. rim est. 11.0. Fine, soft, reddish-yellow (5YR 6/6) fabric with some red phyllites and quartzites. Creamy pink (7.5YR 8/4) slip. Red (2.5YR 4/6) paint over slip. Very worn surfaces. *Comparanda*: Day, Klein, and Turner, 2009, 154, fig. 105:K4 P5 (LM IIIC). *Date*: LM IIIC.

VIII P7 (V 7102.3; Fig. 22). Deep bowl or cup. Single fragment preserving entire base. D. base 4.0. Fine, soft, porous, pink (5YR 7/4) fabric. Very pale brown (10YR 8/2) slip. Worn surfaces. *Comparanda*: Day and Glowacki 2012, 169, fig. 133:WS P4. *Date*: LM IIIC.

VIII P8 (V 7102.3; [Fig. 22](#)). Deep bowl or cup. Single fragment preserving entire base. D. base 5.0. Fine, soft, porous, reddish-yellow (5YR 7/6) fabric. Very pale brown (10YR 8/2) slip. Traces of crackled black paint. Worn surfaces. *Comparanda*: Day, Klein, and Turner 2009, 44, fig. 26:B4 P13 (LM IIIC early). *Date*: LM IIIC.

VIII P9 (V 7102.1; [Fig. 22](#)). Goblet. Single fragment preserving entire stem. Max. pres. h. 2.6; d. stem 3.0. Fine, soft, reddish-yellow (5YR 7/6) fabric with tiny red phyllite inclusions. Very pale brown (10YR 8/4) slip. Worn surfaces. *Comparanda*: Popham 1992, pl. 43:12, 13 (Knossos, SM). *Date*: LM IIIC or SM?

COOKING WARE

VIII P10 (V 7612.1; [Fig. 22](#)). Cooking dish. Single fragment preserving nearly complete profile from rim to beginning of base. Max. pres. h. 6.6. Coarse, red (2.5YR 5/8), Kavousi Type IV fabric (Haggis and Mook 1993), gray (2.5YR 5/0) at core. *Comparanda*: Day, Klein, and Turner 2009, 46, fig. 30:B4 P41 (LM IIIC). *Date*: LM IIIC.

COARSE PAINTED WARE

VIII P11 (V 7102.3; [Fig. 22](#)). Fenestrated stand. Single fragment from rim, preserving edge of one fenestration. D. rim est. 26.0. Coarse, light reddish-brown (2.5YR 6/4), Type X/XI fabric. Very pale brown (10YR 8/2) slip. Red (2.5YR 5/8) paint. Very worn surfaces. Decoration of crosshatched panel. *Comparanda*: Day, Klein, and Turner 2009, 85, fig. 60:C2 P4; 138, fig. 96:J3 P10 (LM IIIC). *Date*: LM IIIC.

Metal

IRON

VIII M2 (V89.29; V 7702.2; [Fig. 22](#)). Spearhead. Single fragment from blade near socket attachment. Max. pres. L. 4.5; max. pres. w. 1.9; th. 1.0. Surfaces corroded and cracked. No preserved edge. Very thick fragment that must be from near the socket attachment.

Vronda Tombs II, VII, or VIII (Boyd's Tombs 1, 4, or 2)

The vessels that we have labeled with the prefix II-VII-VIII ([Fig. 20](#); [Pl. 13D](#)) are illustrated by Boyd (1901, pl. II; [Pl. 5A](#)). They are recorded as coming from Tombs II, VII, or VIII, but they cannot be more specifically assigned. Some vessels on this photograph are clearly not from the tholos tombs at Vronda, especially those on the upper shelf. Of the vessels pictured on the top shelf in [Plate 5A](#), the bowl at the far left came from Hagios Antonios (Boyd 1901, 131 n. 2), while the second and third vessels from the left are two halves of a lekythos from the Kastro (Gesell, Day, and Coulson 1985, 351, fig. 13). The second, third, and fourth vessels from the right include a teapot that looks earlier and may come from Hagios Antonios, and two jugs, the smaller of which resembles a jug from Knossos of PGB–MG date (Brock 1957, 157, pl. 38:597). The other vessels are without known parallels.

The missing vessels pictured on the middle shelf in [Plate 5A](#), from left to right, include an amphoriskos, a cylindrical-mouthed jug, a bowl, a one-handled cup, and a bell skyphos. The shape of the amphoriskos resembles an example from the Plaitou Kastro tomb (HM 731) of SM or PG date and two krateriskoi of EPG date, one from Chamaizi Phatsi (Tsipopoulou 1997, 457–458, fig. 2:5051), and the other from Skopi Droggera (Tsipopoulou 1997, 482,

458, fig. 2:5055); its decoration of multiple pendant loops, however, is more reminiscent of the motif on LM IIIC deep bowls (Day 2011b, 260–261). The combination of the new shape and the old decoration suggests that it belongs to a transitional period between LM IIIC and EPG—that is, SM. The bell skyphos on the right is a good SM shape, with parallels at Knossos of SM (Popham 1992, 61, pl. 44:9, 10), SM–EPG (Boardman 1960, 130, 136, fig. 4:I.15, pl. 34:I.17, pl. 35:I.14, I.16, VI.3), or LPG (Coldstream and Catling, eds., 1996, 5, fig. 56:7) date; although it is difficult to tell from the photo, it may have been dipped. The jug or jar second from the left is an unusual shape, but it may be a thelastron or basket vase, such as the EO thelastra at Adromyloi (Tsipopoulou 2005, 209, fig. 142:H3210) and Deros (Tsipopoulou 2005, 63, fig. 142:HA15) or the LG basket vase in one of the Vronda cremation burials (**GR9 P10**; this vol., [Ch. 3](#)).

The bowl with a ledge rim, third from the left in [Plate 5A](#), resembles an example from Tomb IX (**IX P42**; see below) and another from Grave 9 in the later cremation burials at Vronda (**GR9 P23**; this vol., [Ch. 3](#)), both of which may be cups like a LPG example from Knossos (Coldstream and Catling 1996, eds., 186, fig. 119:16). The one-handled cup, third from the right, resembles an example from Vronda IX (**IX**

P60) of PG date and a cup from Praisos dated to the LG period (Tsipopoulou 2005, 288, fig. 124:AN8767). Heavy shallow cups like this one tend to be earlier in date than deeper, thin-walled cups, and this example is most likely to be PG–G in date as well as style.

The crude pyxis that appears second from the left on the bottom shelf in [Plate 5A](#) also probably comes from one of the tombs. It resembles a PGB example from Sklavoi (Tsipopoulou 2005, 304, fig. 56:Σ3974) and is probably PG.

Only two vessels can still be found in this group: the lentoid flask (**II-VII-VIII P1**), which has many parallels in SM deposits, and the oinochoe (**II-VII-VIII P2**). The pottery seems to be largely SM or PG, with a few possibly later pieces such as the cup.

Catalog of Extant Finds from II-VII-VIII

Pottery

FINE WARES

II-VII-VIII P1 (HM 3693; [Fig. 20](#); [Pls. 5A, 13D](#)). Lentoid flask. Intact. H. 13.0; d. rim 3.8; max. d. 9.6. Soft, pinkish-white to pink (7.5YR 8/2–8/4) fabric with a reddish-yellow (5YR 7/6) core. Paint entirely worn off;

surface lighter where it was. Narrow neck with flaring rim; single vertical rectangular handle from below rim to shoulder; irregular lentoid body, hole drilled at base of neck. Concentric circles on two flat sides of flask; possible stripes on handle. *Bibliography*: Boyd 1901, pl. II: top row, right; Gesell, Day, and Coulson 1983, 397, fig. 4:2, pl. 76:a; Tsipopoulou 2005, 121, fig. 144; Karageorghis et al. 2014, 97 (Creto-Cypriot juglet, SM). *Comparanda*: **II P1, IV P8, IX P11**; Tsipopoulou 1997, 469, fig. 12:4974 (Chamaizi Phatsi, SM); 2005, 110, fig. 145 (Kavousi, Plai tou Kastrou, PG). *Date*: SM.

II-VII-VIII P2 (HM 1019; [Fig. 20](#); [Pls. 5A, 13D](#)). Oinochoe. Intact except for small part of upper neck and rim. H. 11.1; max. d. 7.9; d. base 3.4. Fine, soft, pink (5YR 7/4) fabric with small inclusions. Very dark gray (10YR 3/1) to weak red (7.5YR 5/4) paint. Trefoil mouth; narrow neck; single flattened handle from rim to shoulder; ovoid body; flat base, slightly hollowed underneath. Filled pendant triangles on shoulder and upper body; lower body solidly painted. Horizontal strokes on handle. String marks on underside of base. *Bibliography*: Boyd 1901, pl. II: bottom left; Tsipopoulou 2005, 75, pl. 21, fig. 85 (said to be from Vronda Tomb IV, PG). *Comparanda*: **IX P27**; Brock 1957, 37, pl. 26:352; 119, pl. 96:1376 (Knossos, PGB–MG); Tsipopoulou 2005, 92, pl. 51, fig. 73 (Kavousi, Plai tou Kastrou, PGB); 310, fig. 65:Σ4016 (Sklavoi, PG); for motif, Brock 1957, motif 4t (PGB–MG). *Date*: PG.

Vronda Tomb IX

Tomb IX was cleared by the local landowner, Giorgos Sekadakis, in 1951, and the whole vessels were taken to the Ierapetra museum at that time (Platon 1951, 445; another reference in Platon 1954 [p. 516], originally interpreted as referring to the same tomb, probably describes another tomb, as the number of vessels reported differs from that reported in 1951, and no sealstones were found in the Sekadakis tomb). There was no indication of the number of burials within the tomb. The number of pots was reported in 1951 as 23, though the landowner remembered 54, including one with painted decoration of an archer shooting a bird. Three rings were also reported to have been found in the tomb, and these have been identified as stone whorls. Of the pots, 20 can be securely identified from an unpublished photograph taken by the landowner just after excavation, and three more are listed in the Ierapetra museum as coming from the Sekadakis group from Vronda (**IX P6, IX P16, IX P21**). The tomb

was cleaned in 1981 for drawing and photography ([Fig. 23](#)), and many sherds, bones, and fragments of iron blades were recovered, material that the landowner had thrown back into the tomb after recovering the whole vases. It was impossible to clean the tomb completely without damaging the olive tree that had been planted by the landowner, and some material was left in place. In 1987 more pottery was collected from the tomb and the immediate area.

Architecture

Only one corner and small sections of two walls of the tomb are preserved ([Pl. 14A](#)). The tomb is square or rectangular at the bottom course, but the corner begins to round out in the second course, about 0.30 m above the floor of the tomb. The maximum height of the wall is 1.30 m, preserved in seven courses. The maximum preserved length of the west wall is 0.90 m, and that of the east wall is 1.50 m. The lower

two courses are built of roughly shaped rectangular blocks of limestone, while the upper courses are largely made of irregularly shaped breccia boulders. On the west side the tomb is built right into the local red clay. The entrance is not preserved.

Stratigraphy

All of the soil had been disturbed by the planting of the olive tree and the removal of the whole vases in 1951. Many later vessels (Medieval–Modern in date) that had probably been on the surface of the area were thrown back in along with the soil and the fragments of tomb pottery (IX P57–IX P59).

Burials

The landowner's son remembered that one of the skulls was actually in the dromos or stomion, but otherwise there is no information on the disposition of the bodies. During the cleaning of the tomb, remains of three individuals were recovered: two adults and one subadult.

Burial 1

Type: disturbed inhumation

Age: juvenile

Sex: unknown

The presence of a juvenile is indicated by very thin, child-like parietal fragments and small, extremely gracile long bone fragments.

Burials 2 and 3

Type: disturbed inhumations

Age: both adult, one 40–49 years

Sex: both male

The remains of Burials 2 and 3 consisted of fragmentary, commingled partial skeletons of two adult male individuals. One of the individuals was 40–49 years old at death. Both of these individuals had retained metopic sutures on the frontal bone of the cranium. One right and one left half of the frontal bones are preserved, but these two halves do not join at the suture, indicating that the bones come from two individuals. This trait is genetically based and suggests a probable family relationship.

Faunal Remains

No animal bones were recovered, but there were parts of two marine shells (Table 3), both dog cockles (*Glycymeris*).

Pottery

In total, 60 vessels have been cataloged from Vronda Tomb IX, including 22 whole vases in the Archaeological Collection of Ierapetra and 38 more fragmentary pots recovered from the cleaning. Fragments of other vessels have not been cataloged because their shapes were uncertain. These uncataloged vases included the bases of at least three fine closed vessels, probably jugs or oinochoai, along with numerous fragments from fine open vases including small rim fragments and a raised and hollowed base. There were, in addition, at least four bases in medium-coarse wares.

The cataloged pottery includes many vessels for drinking, probably the remains of a ritual undertaken during interment, but possibly deposited to slake the thirst of the dead in the afterlife. There are 14 cups (IX P1, IX P2, IX P4, IX P28–IX P34, IX P50, IX P51, IX P59, IX P60), two skyphoi (IX P3, IX P35), and four cups or skyphoi (IX P37–IX P39, IX P52). Other open vessels, such as the three bowls (IX P5, IX P6, IX P42), may also have been used for drinking, but they might also have contained offerings. The small necked jar (IX P7) and necked jar (IX P8), although coated on the interior, were probably used for storage because of their restricted mouths, as was the larger necked jar (IX P9). The bases IX P40 and IX P41 may be from footed krateriskoi, skyphoi, or cups. The large number of drinking vessels distinguishes Vronda IX from the other tholos tombs, where cups and skyphoi are rare, as in the unrobbed Vronda IV (see above). Large numbers of drinking vessels are, however, common in the later cremation burials on the summit and may indicate that at least some of the burials in this tholos tomb are closer in date to those in the cremation cemetery.

Closed vessels with narrow mouths are rather rare and include the stirrup jar (IX P10), flask (IX P11), bird askos (IX P53), jug (IX P27), juglets (IX P12–IX P14), and small oinochoai (IX P16, IX P17, IX P44, IX P54). These small vessels probably held valuable liquids, such as perfumed oil. The assemblage includes a large number of pouring vessels with less restricted mouths (12), whether jugs (IX P15) or oinochoai (IX P18–IX P23, IX P46, IX P49). Vessels IX P24 and IX P25 could be either jugs or oinochoai, but their rims are not preserved well enough to be certain. All of these vessels would have been used for pouring, possibly in the same rituals that

included the cups. Other vessels were for storage, possibly for foods or liquids left as grave offerings: the pyxis (IX P45), three necked jars (IX P7–IX P9), and three amphorae (IX P47, IX P48, IX P58). The lid (IX P43) may have been used to seal one of these.

At least three of the vessels recovered during the cleaning belonged to a much later date (a small amphoriskos and two larger jars: IX P55–IX P57), either to the period of occupation of what may have been a Venetian farmstead at nearby Xerambela or to the Modern era. Five fragments of glazed ware were found, including a ring base with olive green glaze (5Y 5/4), a pierced rim fragment with light olive brown (2.5Y 5/6) glaze, and body fragments with yellow (2.5Y 7/8), pink (5YR 8/4), and red (2.5YR 5/8) glazes. Pithos sherds were found on the terrace just above the tomb, including one decorated with knobs and oblique incisions and another with dots and incised lines.

Objects

Four stone rings were reported (Platon 1951, 445), but these could not be located in 1979. They may have been stone beads or whorls. Many fragments of iron weapons and tools were found in the cleaning of the tomb. These included fragments from the socket and the blade of an iron spearhead (IX M1) and seven fragments that seem to come from iron knives of at least four different types (IX M2–IX M8).

Chronology

The flask (IX P11) and the bird askos (IX P53) are the earliest vessels from Tomb IX. The flask has many parallels in other tombs at Vronda (II P1, IV P8, II–VII–VIII P1; see above) as well as at other Cretan sites and is probably of SM date. The bird askos resembles other SM examples (IV P6, IV P7; Desborough 1972, 253, type IIb), but the shape and monochrome paint make it unusual, perhaps dating to the later SM–EPG era. Cup IX P1 with its wavy line decoration may be SM, particularly if it had a high pedestal foot like SM cups from Knossos (Warren 1982–1983, 85, fig. 60:a, b). If it had a flat base, it may have been EPG, more like an example from Hagios Ioannis (Boardman 1960, 134, pl. 36:V.16). The footed cup IX P34 is also probably EPG; it is top-heavy, with a rim diameter greater than its height, a feature that is found in early bell skyphoi on the Kastro (Mook 1993, 172). The other

footed cup IX P2 is also of early date, as can be seen from its dipped decoration and its shape that resembles the bell skyphos, except for the handle; it is not as early as IX P34, however, because the rim diameter is still smaller than its height. Although the shape is rare, similar examples of SM–EPG date can be found at Knossos.

The two-handled cup IX P4, with its dipped decoration, is unusual. The shape, aside from the handles, which may be a local variation, resembles krateriskoi from the Knossos area of SM–MPG date. The rim diameter is considerably smaller than the height on this vessel, suggesting that it could belong to the late end of this chronological span. Vessels IX P3 and IX P35 might have been of similar shape, although their feet are not preserved, and they may belong to the same chronological phase.

The stirrup jar (IX P10) is certainly of PG date, with both EPG and MPG parallels for its shape and decoration; the shape seems closest to those examples dated to the MPG period. Two oinochoai, IX P22 and IX P49, resemble examples from the Knossos area of MPG date, but the scroll decoration of IX P49 is more common on EPG jugs and amphorae. The decoration on IX P22 looks like an upside-down variation of the moustache or tassel pattern also found on SM and EPG vessels (Coldstream and Catling, eds., 1996, 97, pl. 112:38, 39, Knossos, SM–EPG); it may be a later or a local version of the earlier motif. The small juglet IX P13 has EPG and MPG parallels.

Several vessels seem to date to MPG–LPG, including four cups (IX P28, IX P29, IX P50, IX P59). Also of this date are jug IX P15, jug or oinochoe IX P24, and possibly amphora IX P47. A large number of vessels find parallels of LPG–PGB date from Central Crete, including cups IX P30, IX P31, IX P33, IX P51, and IX P60, necked jar IX P8, small juglets IX P12 and IX P16, oinochoai IX P18, IX P19, and IX P21, and pyxis IX P45. The conical bases IX P40 and IX P41 may also belong to this ceramic phase or even later; they both show a circular depression on the underside of the base that is found primarily on MPG vessels at Knossos (Coldstream and Catling, eds., 1996, 32, fig. 66:L3; 198, fig. 126:48) and perhaps on even later examples from the Kastro (Mook 1993, 173–174). At Kommos this feature is attested on LPG vessels (Johnston 2000, 194, fig. 2:3, 4), although it also occurs on SM–PG closed vessels in Central Crete (Rethemiotakis and Englezou 2010,

91, fig. 51:126). Other vessels are probably also of PG date, including four cups (**IX P32**, **IX P37**, **IX P38**, **IX P52**) and krater **IX P36**.

A number of vessels are later than the PG period. On the basis of their parallels with Central Cretan pottery of LPG–MG date, oinochoe **IX P17**, jug **IX P27**, lid **IX P43**, and amphora or jug **IX P48** belong to the Geometric period, possibly LG. Three vessels are of PG–G date: bowl **IX P6**, small necked jar **IX P7**, and large necked jar **IX P9**. The remainder of vessels show a wider range of chronological possibilities. Cup **IX P33**, small necked jar **IX P7**, and oinochoe **IX P20** find parallels ranging from LPG to LG in date. Cup **IX P33** is similar to an example from one of the cremation burials (**GR9 P43**; see this vol., **Ch. 3**), and it may indicate that the two burials overlapped in time. Vessel **IX P7** is similar in shape to many small necked jars ranging in date from LPG to LG (see below, p. 39), but it seems to be coated on the interior, a fact that suggests its use as a drinking vessel. The decoration of a single metope on a dark-ground vessel bearing a crosshatched lozenge chain, however, is not otherwise found. One pyxis from Praisos has a similar decoration (Tsipopoulou 2005, 293, fig. 60:AN8788 [mistakenly labeled H8788]), although with bands on the lower body; the Tomb IX example may be earlier than the LG date assigned to the Praisos vessel. The small oinochoe **IX P20** is similar in shape to an example from Chamaizi Phatsi of early LG date (Tsipopoulou 1997, 471, fig. 13:4960), but the decorative scheme of triangles filled with hatching is probably earlier, as is the scheme of dark paint on a light background. The neck-handled amphora **IX P58** is of a shape that seems to be peculiar to East Crete (see parallels in catalog entry below, p. 44). It may be a local variation of the MG Atticizing amphora found in Central Crete (Coldstream 1996, 334–335). The meander pattern on the shoulder clearly marks this vessel as Geometric, and it is probably no earlier than the MG examples at Knossos and may be as late as LG. Bowl **IX P5** also dates to the Geometric period.

The pottery evidence from Tomb IX points to a date rather later than many of the tholoi, beginning in EPG with use later in PG and again in LG.

Finally, there is a large quantity of Venetian–modern pottery that was found during the cleaning of the grave. It was doubtless deposited there after the grave material had been removed by the local landowner.

Catalog

Pottery

FINE DARK-ON-LIGHT WARES

IX P1 (Fig. 24). Cup. One-third of upper profile preserved, including lower handle attachment; handle and base missing. Max. pres. h. 6.0; d. rim est. 10.0. Soft, reddish-yellow (5YR 7/8) fabric with some mica and white grits; heavy soil incrustation. Worn black paint. Wheel ridging on interior, wheel marks on exterior. Base may have been flat or pedestaled. Decoration of crude wavy line or scribble pattern with bands above and below. Bands on interior. *Comparanda*: Boardman 1960, 140–142, pl. 36:VIII.14 (Hagios Ioannis, EPG); Tsipopoulou 1997, 463, 479, fig. 6:4995, 5002 (Chamaizi Phatsi, PGA). *Date*: SM–PG.

IX P2 (IM 552; Fig. 24; Pl. 14B). Footed cup. Restored; tiny piece of rim missing. H. 11.7; d. rim 10.9; d. base 3.2. Fine, hard, pink (7.5YR 7/4) fabric. Dull, flaky paint, well preserved; mottled in color from light reddish-brown (5YR 6/4–5/4) to black on one spot in center. Profile S-curved; one round vertical handle from rim to shoulder; small conical stem, hollowed underneath; depression in center of interior. Dipped so that top is monochrome, bottom unpainted. Reserved band around base of exterior. Interior coated except for very center. *Comparanda*: Brock 1957, 166, pl. 3:19 (Knossos, SM–EPG); Coldstream 1972, 69–70, fig. 2:A25 (Knossos, SM–EPG). *Date*: PG.

IX P3 (Fig. 24) Skyphos. Six joining fragments from rim and one handle, one nonjoining handle fragment. Max. pres. h. 7.8; d. rim est. 11.0. Fine, soft, very porous, white (2.5YR 8/2) fabric and slip. Washy black paint. Very worn surfaces, heavily coated. May have been a bell skyphos with a conical foot. Bands at rim and below handle zone; handles coated. *Bibliography*: Boyd 1901, pl. II: middle row, right (Vronda, II, VII, or VIII). *Comparanda*: Boardman 1960, 132, 136, fig. 4:IV.3 (Hagios Ioannis, SM–MPG); Coldstream and Catling, eds., 1996, 19, fig. 60:77 (Knossos, PGB). *Date*: SM–PG.

IX P4 (IM 551; Fig. 24; Pl. 14B). Footed two-handled cup. Intact. H. 14.0; d. rim 12.0; d. base 4.0. Soft, reddish-yellow (5YR 7/6) fabric with some inclusions. Dull, washy, very dark gray (10YR 3/1) paint, worn. Flaring rim; deep, rounded body; two round, vertical handles from rim to body; low, conical stem with concave base. Handmade and uneven. Dipped so that top is monochrome coated, bottom is plain. Underside of base and bottom of interior reserved. Paint sloppily applied on interior, with drip marks. Soil incrustation on body. *Bibliography*: Gesell, Day, and Coulson 1983, 403–407, fig. 8:V.15, pl. 77:c. *Comparanda*: Desborough 1952, 102–103, pl. 12:2026 (Athens, LPG); Boardman 1960, 130, pl. 34:I.13; 132, 136, fig. 4:IV.3 (Hagios Ioannis, SM–MPG krateriskos). *Date*: SM–PG.

IX P5 (Fig. 24). Bowl. Mended from 10 fragments preserving 67% of rim, 30% of base and body; eight nonjoining fragments. H. 6.7; d. rim 15.0; d. base 6.0. Fine, rather

hard, reddish-yellow (5YR 6/8) fabric. Black to red (2.5YR 5/8) paint. Worn surfaces. Possible traces of light red bands on exterior; monochrome interior. *Comparanda*: Tsipopoulou 1997, 463, 473, fig. 7:4975 (Chamaizi Phatsi, EG early); 2005, 315, fig. 132:AN1455 (Zou, LG); 2013, 153, fig. 13:12282 (Piskokephalo, LG). *Date*: PG–G.

IX P6 (IM 117; [Fig. 24](#); [Pl. 14B](#)). Bowl. Complete; mended from six fragments. H. 7.5; d. rim 16.5; d. base 7.2. Fine, reddish-yellow (7.5YR 6/6) fabric with some fine inclusions, flaky surface. Worn, black (7.5YR N2.5) paint, but faded. Vertical rim, flattened on top; two horizontal lugs at rim; nearly conical body; flat base. Monochrome inside and out. Underside of base reserved; top of lugs decorated with stripes. *Comparanda*: Rocchetti 1967–1968, 207, fig. 49 (Phaistos, PG). *Date*: PG.

IX P7 (IM 154; [Fig. 24](#); [Pl. 14B](#)). Small necked jar. Restored; top of one handle and part of another missing. H. 9.6; d. rim 8.1; d. base 5.5. Fine, soft, pink (7.5YR 8/4) fabric. Dark gray (5YR 4/1) paint faded to light red (2.5YR 6/8); badly worn. Wheelmade. Flaring rim; ovoid body; two round horizontal handles on shoulder; flat base. Painted inside and out, including underside of base, except for reserved band in handle zone with decoration of crosshatched lozenges between bands. Reserved band at base of rim. *Bibliography*: Gesell, Day, and Coulson 1983, 404–407, fig. 8:18, pl. 77:f. *Comparanda*: for shape, Brock 1957, 165, pl. 26:361 (Knossos, LPG); Coldstream and Catling, eds., 1996, 264, fig. 145:77 (Knossos, MG); Tsipopoulou 2005, 293, fig. 60:H8788 (Praisos, LG); 2013, 147, 149, fig. 11:12328 (Piskokephalo, LG); Rethemiotakis and Englezou 2010, 71, fig. 42:96 (Eltyrna, MG); for decoration, Marinatos 1931–1932, 6, fig. 6:4 (Anavlochos, G); Platon 1955, 296, pl. 111:α (top right; Sphakia, PG); Brock 1957, 172, motif 5j (Knossos, PG). *Date*: PG–G.

IX P8 ([Fig. 24](#)). Large necked jar. Partly mended from 21 joining fragments preserving full profile, one handle; 25 nonjoining fragments, including more of base, rim, and other handle attachment. H. 17.1; d. rim 12.6; d. base 7.0. Fine, soft, very pale brown (10YR 7/4–8/4) fabric; worn and encrusted. Washy black paint, worn. Flaring rim; tall, wide neck; ovoid body with two round horizontal handles on shoulder; flat base. Coated black inside and out except for reserved band in handle zone with crosshatched triangles above bands. *Comparanda*: for decoration, Brock 1957, 171, motif 4l (Knossos, LPG). *Date*: PG.

IX P9 ([Fig. 24](#)). Large necked jar. Large fragment preserving 33% of profile; missing lower body and base, 75% of body and rim; three nonjoining rim fragments, fragment with stump of second handle, and five nonjoining body sherds. Max. pres. h. 13.5; d. rim 12.1. Fine, soft, reddish-yellow (5YR 7/6) fabric with some inclusions. Petrographic sample KAV 15/101: loner. Washy black paint, very worn. Surfaces worn and encrusted. Wheel ridging on interior. Flaring rim, wide short neck; two round horizontal handles on shoulder. Coated black on exterior except for reserved panel in handle zone with horizontal bands. Interior too worn to determine. *Comparanda*:

Marinatos 1931–1932, 6, fig. 6:1 (Anavlochos, G); Platon 1955, 296, pl. 111:α (top, third from left; Sphakia, PG). *Date*: PG.

IX P10 (V98.43; [Fig. 25](#); [Pl. 14B](#)). Stirrup jar. Mended from 22 fragments, preserving 75% of top, 27% of body, including both handles and entire base; missing top of false spout. Seven nonjoining fragments. Max. pres. h. 20.0; max. d. 13.8; d. base 5.0. Fine, soft, reddish-yellow (5YR 6/6) fabric with white grits. Petrographic sample KAV 15/103: Fabric Group 7. Very pale brown (10YR 8/4) slip. Worn black paint. Surfaces very worn and pocked. Spout leans back, probably touching false spout. Ovoid body, ridge on interior where top has been added as disk. Conical foot. Crosshatched triangles on shoulder; bands below. *Comparanda*: Brock 1957, 153, pls. 15:218, 219 (EPG?), 18:245 (Knossos, EPG?); Boardman 1960, 132, pl. 38:V.4 (Hagios Ioannis, SM–EPG); Coldstream and Catling, eds., 1996, 27, pl. 64:7 (Knossos, MPG); 29, fig. 66:J 55, pl. 66:55 (MPG); 186, pl. 177:29 (LPG); for shape, Coldstream and Catling, eds., 1996, 197, fig. 125:19 (SM–EPG); 28, pl. 64:16 (MPG); for decoration, Rethemiotakis and Englezou 2010, 31–32, fig. 13:18 (Eltyrna, EPG). *Date*: EPG–MPG.

IX P11 (V98.44; [Fig. 25](#); [Pl. 14B](#)). Lentoid flask. Mended from 18 fragments, preserving 75% of body; missing top of shoulder, neck, and handle. Max. pres. h. 12.3; max. d. 13.2; w. 8.7. Fine, hard, light reddish-brown (2.5YR 6/4) fabric. White (10YR 8/2) slip. Worn black paint. Round body, made in two halves and put together. Concentric circles on both sides. *Comparanda*: **II P1, II–VII–VIII P1, IV P8**; Tsipopoulou 1997, 469, fig. 12:4974 (Chamaizi Phatsi, SM). *Date*: SM.

IX P12 (IM 763; [Fig. 25](#); [Pl. 14B](#)). Juglet. Intact. H. 8.8; max. d. 6.7; d. base 3.3. Fine, soft, reddish-yellow (7.5YR 7/6) fabric with some inclusions. Very pale brown (10YR 8/3) slip. Very dark gray (7.5YR N/3) paint, badly worn. Handmade. Slightly flaring rim, short narrow neck; ovoid body; single round vertical handle from rim to shoulder; flat base, slightly hollowed underneath. Upper body and shoulder has metopal panels with a frieze of hourglasses, divided by four vertical bands. Rest of body and handle coated. Top of rim painted, but not interior of neck. *Comparanda*: for shape, Kotsonas 2008, 174–175, 178, fig. 42:A 145β (Eleutherna, PGB aryballos); Tsipopoulou 2013, 139–140, fig. 5:12312 (Piskokephalo, LPG); for decoration, vertical version, Brock 1957, 168, motif 2f (Knossos, MG–LO). *Date*: PG.

IX P13 (IM 175; [Fig. 25](#); [Pl. 15](#)). Juglet. Nearly complete except for small pieces of rim. H. 10.5; max. d. 8.9; d. base 3.6. Hard, rather fine, pinkish-white (7.5YR 8/2) fabric, with some small inclusions. Black (5YR 2.5/1) paint, badly worn. Wheelmade. Flaring rim; short neck; globular body; oval vertical handle from rim to shoulder; flat raised base. Possible wavy line on neck; groups of four short vertical strokes on shoulder; bands on lower belly. Rim possibly coated inside and out. Top of handle painted. *Comparanda*: Coldstream and Catling, eds., 1996, 42,

pl. 77:29 (EPG); for decoration, Boardman 1960, 133, pl. 35:V.8 (Hagios Ioannis, MPG); Coldstream and Catling 1996, eds., 28, pl. 65:26 (Knossos, MPG); 186, pl. 179:31 (MPG); 247, pl. 227:97 (MPG); for shape, Brock 1957, 155, pl. 8:119 (Knossos, SM-EPG); Rizza and Scrinari 1968, 16, fig. 25 (Gortyn, PG). *Date*: MPG.

IX P14 (Fig. 25). Jug or flask. Single fragment from neck and rim. Max. pres. h. 4.3; d. rim 3.5. Fine, soft, light red (2.5 YR 6/8) fabric, worn and encrusted. Black paint on exterior.

IX P15 (Fig. 25). Cylindrical-mouthed jug. Partially mended into four large fragments from lower body and base (five sherds), lower body (six sherds), upper body (two sherds), and neck with handle (eight sherds); 20 nonjoining fragments. H. est. 22.0; d. rim est. 16.3; d. base 10.0. Rather fine, soft, reddish-yellow (5YR 6/6) fabric. Sampled KAV 15/100: Fabric Group 6. Very pale brown (10YR 8/3) slip. Black paint. Surfaces laminating and pocked. Flaring rim; short cylindrical neck; oval handle rises above rim to shoulder; ovoid body; flat base. Upper part painted; bands at middle of body. Stripes across handle. Interior of rim painted. *Comparanda*: for shape, Rethemiotakis and Englezou 2010, 38, fig. 18:30 (Eltyna, MPG-LPG). *Date*: PG.

IX P16 (IM 162; Fig. 25; Pl. 15). Small jug or oinochoe. Restored; rim and handle missing. Max. pres. h. 7.5; max. d. 7.1; d. base 3.5. Fine, soft, reddish-yellow (5YR 7/6) fabric. Black (5YR 2.5/1) paint; decoration clear, although surface is worn and encrusted. Narrow neck; single handle attached at shoulder; globular body; flat base. Multiple chevrons on shoulder; bands on lower body. *Comparanda*: Brock 1957, pl. 26:348, (Knossos, LPG-PGB); Rocchetti 1988–1989, 187–188, fig. 29 (Kourtes, PGA-PGB); 188–189, fig. 31:33 (Kourtes, PGB-MG); Coldstream and Catling, eds., 1996, 61, fig. 74:21 (Knossos, EG); 234, pl. 214:38 (PGB-EG); Rethemiotakis and Englezou 2010, 66, fig. 38:81 (Eltyna, PGB-EG); for decoration, see Brock 1957, 171, motif 4i (Knossos, PGB); Coldstream and Catling, eds., 1996, 48, pl. 79:32 (Knossos, PGB). *Date*: LPG-EG.

IX P17 (Fig. 25). Small oinochoe. Mended from three fragments, preserving entire base and part of shoulder; missing handle and three-quarters of shoulder and neck. Max. pres. h. 9.5; d. base 3.0; max. d. 7.2. Fine, soft, reddish-yellow (7.5YR 7/6) fabric. Worn and pockmarked surfaces, encrusted. Traces of black paint. Trefoil mouth; tall, narrow neck; globular body; raised base, hollowed underneath. Bands on neck; shoulder decorated but too worn to determine motif; bottom coated, including underside of base. *Date*: PG.

IX P18 (IM 757; Fig. 25; Pl. 15). Oinochoe. Restored; 80% of rim missing and wrongly restored; hole worn through base. H. 10.8; max. d. 7.8; d. base 4.0. Soft, very pale brown (10YR 8/3) fabric with some small inclusions. Dark to very dark gray paint (10YR 4/1–3/1), badly worn. Trefoil mouth; flaring neck; depressed ovoid body; square handle from rim to shoulder; flat base, hollowed

underneath. Crosshatched triangles on shoulder, with bands above and below; lower body painted. *Bibliography*: Gesell, Day, and Coulson 1983, 404, 407, fig. 8:V19 (emended); pl. 77:g. *Date*: PG.

IX P19 (IM 548; Fig. 25; Pl. 15). Oinochoe. Intact. H. 11.7; max. d. 9.3; d. base 4.5. Fine, soft, reddish-yellow (7.5YR 7/6) fabric. Dark reddish-brown to red paint (2.5YR 2.5/2–5/6). Trefoil mouth; short, flaring neck; ovoid body; flat raised base. Decoration on upper body and shoulder: bands alternating with wavy bands. Paint on top of handle. Bands begin dark at handle and gradually, moving clockwise, become fainter as the paint was used up. *Comparanda*: for shape, Brock 1957, 156, pl. 61:1033 (Knossos, LPG-PGB); Coldstream and Catling, eds., 1996, 185, pl. 177:7 (Knossos, EG); for decoration: Brock 1957, 174, motif 8a (Knossos, SM-PGB). *Date*: PG.

IX P20 (IM 546; Fig. 25; Pl. 15). Oinochoe. Restored; 25% of rim missing. H. 12.1; max. d. 10.1; d. base 4.5. Fine, soft, reddish-yellow (7.5YR 7/6) fabric with soft surface. Very faded red (2.5YR 5/8) paint, badly worn. Trefoil mouth; tall, flaring neck; biconical body; flat base. Bands on neck; framed crosshatched triangles (extent of crosshatching not clear) on shoulder; bands on lower body. Handle painted? *Comparanda*: for decoration, Brock 1957, 171, motif 4k (Knossos, PG-MG). *Date*: PG.

IX P21 (IM 549; Fig. 25; Pl. 15). Oinochoe. Restored; half of belly and base of handle missing. H. 15.0; max. d. 10.4; d. base 4.0. Fine, soft, reddish-yellow (5YR 7/6) fabric. Very worn red (2.5YR 4/8) paint. Handmade. Trefoil mouth, unevenly shaped; tall, wide neck; round vertical handle from rim to shoulder; biconical body with sharply offset shoulder; flat base. Neck coated; reserved band with crosshatched triangles on shoulder; two horizontal grooves around base of neck; lower body coated except for reserved band. Handle painted. *Comparanda*: for shape, Tsipopoulou 1997, 464, 470, fig. 8:4961 (Chamaizi Phatsi, MPG); 2005, 303, fig. 75:Σ3855 (Sklavoi, PGB); 2013, 137, 144, fig. 3:12322 (Piskokephalo, LG); 138, 140, fig. 5:12274; for decoration, Brock 1957, 154, pl. 62:1034 (Knossos, LPG). *Date*: LPG.

IX P22 (IM 592; Fig. 26; Pl. 15). Large oinochoe. Intact except for hole in underside of base. H. 29.4; max. d. 25.0; d. base 13.0. Fine, soft, reddish-yellow (7.5YR 8/6–7/6) fabric with small stone inclusions. Faded, very dark gray (7.5YR N/3) paint, worn on one side. Wheelmade, but irregular. Trefoil mouth, rather tall neck with collar at base; single flattened handle from rim to shoulder; ovoid body; flat base. Neck coated; on shoulder under central spout, but slightly off-center, curvilinear floral design or central vertical stroke with two curved strokes coming out of the bottom; alternating narrow and broad bands below; bands on lower body; handle painted. *Comparanda*: for shape, Rocchetti 1988–1989, 207–208, fig. 91 (MPG); Coldstream and Catling, eds., 1996, 186, pl. 179:31; for similar decoration: Coldstream 1972, 68, 74, fig. 1:C7 (Knossos, EPG-MPG); Popham 1992, 62,

pl. 47d:2, 4 (Knossos, SM); Hayden 2003, 38–39, fig. 14:71 (Vrokastro, EPG–MPG). *Date*: EPG.

IX P23 (Fig. 26). Oinochoe. Five joining fragments preserving 75% of neck, including upper handle attachment; missing rim, body, base, handle. Max. pres. h. 7.6. Fine, soft, very pale brown (10YR 8/4) fabric with tiny black inclusions. Possible black paint. Worn surfaces. *Date*: PG.

IX P24 (V98.45; Fig. 26; Pl. 16). Jug or oinochoe. Nearly complete profile; missing one-third of body and neck, all of rim. Max. pres. h. 23.0; max. d. 15.2; d. base 5.8. Soft, reddish-yellow (5YR 7/8) fabric; encrusted. Worn black paint. Narrow neck; oval vertical handle from shoulder to rim; ovoid body; flat base. Lower body black with several reserved bands; decoration on shoulder and neck too worn to distinguish. *Comparanda*: Boardman 1960, 133, 136, fig. 4:V.8 (Hagios Ioannis, MPG); Coldstream and Catling, eds., 1996, 214, pl. 199:7 (PGB). *Date*: PG.

IX P25 (Fig. 26). Jug or oinochoe. Two joining fragments from handle and rim, preserving entire handle. Max. pres. h. 8.5. Fine, rather hard, reddish-yellow (7.5YR 7/6) fabric. Red (2.5YR 4/6) paint worn to shadow. Stripes on handle. *Date*: PG?

IX P26 (Fig. 26). Jar or pyxis. Partially mended from 13 fragments, preserving 80% of base, 85% of neck, including handle attachment; missing rim and handle. Max. pres. h. 10.0; max. d. 14.7; d. base 6.2. Fine, very soft, reddish-yellow (7.5YR 8/6) fabric. Black paint. Very worn surfaces. Neck thickens toward bottom as if made separately and added on with clay. Very thick toward base, with interior ridging. Decoration of four bands just at widest diameter and below. *Date*: PG?

FINE LIGHT-ON-DARK WARE

IX P27 (IM 759; Fig. 26; Pl. 16). Jug. Intact. H. 13.6; max. d. 10.8; d. base 4.2. Fine, soft, micaceous, reddish-yellow (5YR 6/6) fabric, with much spalling. Streaky, dark to light gray (5YR 4/1–5YR 6/1) paint, very worn. Possible burning or misfiring on one side. Flaring rim; tall cylindrical neck; square handle from rim to shoulder; raised base, hollowed underneath. Monochrome paint with decoration in added white: two bands on neck, pendant triangles on shoulder, plain band on lower body. Black band on interior of neck. Two broad horizontal incisions on neck. *Comparanda*: for shape, Rocchetti 1988–1989, 204–205, fig. 83 (Kourtes, but larger); for decoration, II–VII–VIII P2. *Date*: PG.

FINE MONOCHROME WARES

IX P28 (IM 789; Fig. 27; Pl. 16). Cup. Complete; mended from two fragments. H. 7.0; d. rim 11.5; d. base 5.2. Fine, soft, pink (7.5YR 7/4) fabric. Dull, very dark gray (7.5YR N/3) to red (10R 4/8) paint. Handmade; thick walls. Pointed rim; rounded bowl; flat base; round handle rises above rim to lower body. Monochrome inside and out, including handle. *Comparanda*: IX P29,

IX P50; Boardman 1960, 140, pl. 36:VIII.12 (Hagios Ioannis, MPG); Tsipopoulou 1997, 464, 475, fig. 14:5025 (Chamaizi Phatsi, LPG); 473, 475, fig. 14:4945 (MPG). *Date*: PG.

IX P29 (IM 786; Fig. 27; Pl. 16). Cup. Intact. H. 6.8; d. rim 11.9; d. base 4.4. Fine, soft, reddish-yellow (5YR 7/6) fabric with some inclusions. Dull, flaky, reddish-yellow (5YR 6/6) to black (5YR 2.5/1) paint. Handmade; thick walls. Rim slightly beveled; shallow bowl; slightly raised base; round handle from inside rim to mid body. Monochrome inside and out, including handles. *Comparanda*: IX P28, IX P50; Boardman 1960, 140, pl. 36:VIII.12 (Hagios Ioannis, MPG); Tsipopoulou 1997, 464, 475, fig. 14:5025 (Chamaizi Phatsi, LPG). *Date*: PG.

IX P30 (Fig. 27). Cup. Half preserved, including half of handle, rim, base, and full profile. H. 7.2; d. rim 10.5; d. base 3.6. Fine, hard, light red (2.5YR 6/8) fabric. Petrographic sample KAV 15/94: Fabric Group 2. Streaky black paint on interior and exterior. Worn surfaces, with some soil incrustations on exterior. Outturned rim; flat handle; rounded bowl, tapering toward bottom; slightly raised base. String marks on underside of base. Monochrome. *Comparanda*: GR9 P34, GR9 P43; Coldstream and Catling, eds., 1996, 255, fig. 143:2 (Knossos, PGB); Tsipopoulou 2013, 141, 143, fig. 7:12301 (Piskokephalo, PGB). *Date*: PG.

IX P31 (Fig. 27). Cup. Mended from 11 fragments preserving one-third of upper and all of lower part of cup, entire handle, and complete profile; 10 nonjoining fragments. H. 8.7; d. rim 10.3; d. base 4.2. Fine, soft, reddish-yellow (7.5YR 7/6) fabric. Petrographic sample KAV 15/99: Fabric Group 7. Reddish-yellow (5YR 6/6) paint. Worn and pock-marked surfaces. Flaring rim; rectangular handle attached inside rim; deep bowl; raised base, hollowed underneath. String marks on base. Possibly monochrome inside and out. *Comparanda*: GR28 P6, GR30 P7; Kotsonas 2008, 200–204, fig. 50:A 254 (Eleutherna, LPG–PGB). *Date*: G–LG.

IX P32 (Fig. 27). Cup. Single fragment of base, one fragment of rim and handle, two fragments of rim and three body sherds. H. est. 7.8; d. rim 11.4; d. base 4.1. Fine, soft, reddish-yellow (7.5YR 8/6) fabric, with some white inclusions. Worn, red (2.5YR 4/8) paint on interior, exterior, and underside of base. Surfaces very worn and heavily encrusted. Offset rim; rectangular handle attached inside rim; rounded body; raised base. Monochrome interior and exterior. *Comparanda*: Tsipopoulou 2005, 106, pl. 94:H765 (Plai tou Kastrou, LG). *Date*: PG.

IX P33 (Fig. 27). Cup. Mended from 22 fragments, preserving full profile, entire handle, and half of upper body and rim. H. 7.3; d. rim 10.2; d. base 4.2. Fine, soft, reddish-yellow (5YR 7/6) fabric with clay pellets. Worn red (2.5YR 5/8) paint. Rim slightly outturned; round handle flattened on top attached on interior of rim; slightly rounded body; flat base. Monochrome on interior, exterior, and underside of base. *Comparanda*: GR3 P19. *Date*: PG–LG.

IX P34 (IM 812; Fig. 27; Pl. 16). Footed cup. Restored; small sections of rim and shoulder, 65% of base missing. H. 7.6; d. rim 7.9; d. base 3.6. Soft, very pale brown (10YR 8/4) fabric with some black inclusions. Light red (2.5YR 6/8) paint, very worn and encrusted. Handmade. Outturned rim; single round vertical handle rising above rim to body; deep bowl; low conical stem, hollowed underneath. Monochrome inside and out. *Bibliography*: Gesell, Day, and Coulson 1983, 404, 407, fig. 8:V16, pl. 77:d. *Comparanda*: Brock 1957, 166, pl. 3.19 (Knossos SM-EPG); Boardman 1960, 140–142, pl. 36:VIII.14 (Hagios Ioannis, EPG). *Date*: EPG.

IX P35 (Fig. 27). Skyphos. Four joining fragments of handle and body, three rim fragments; partial profile restored. Max. pres. h. 4.5; d. rim 8.8. Fine, soft, reddish-yellow (5YR 7/6) fabric. Red (10R 5/8) paint on inside, black on the outside. Worn surfaces. Bell skyphos. Monochrome. *Comparanda*: Boardman 1960, 130, pl. 34:I.17; 132, 136, fig. 4:IV.3 (Hagios Ioannis SM-MPG); Coldstream and Catling, eds., 1996, 19, fig. 60:77 (Knossos, PGB); 248, fig. 142:127 (LPG); Mook 2004, 171, fig. 12.7:A (Kastro, SM-EPG); Rethemiotakis and Englezou 2010, 39, fig. 19:34 (Eltyna, SM-EPG). *Date*: EPG-LPG.

IX P36 (Fig. 27). Krater. Single large rim fragment, one handle and body fragment, three more rim fragments, and 19 body sherds; missing base. Max. pres. h. 8.0; d. rim 20.0. Fine, soft reddish-yellow (7.5YR 7/6) fabric. Petrographic sample KAV 15/102: Fabric Subgroup 1c. Red (2.5YR 4/8) paint on interior and exterior. Surfaces very badly preserved. Offset rim with groove on interior of lip. Monochrome? *Comparanda*: Tsipopoulou 1997, 477, 482, fig. 16:5054 (Skopi Drogera, PGA); Rethemiotakis and Englezou 2010, 75, fig. 46:109 (Eltyna, PG). *Date*: PG.

IX P37 (Fig. 27). Cup or skyphos. Eight joining fragments from rim and body, two nonjoining fragments; missing handle(s) and base. Fine, soft, reddish-yellow (7.5YR 7/6) fabric with some red phyllites and white inclusions. Red (2.5 YR5/6) paint. Vertical rim. Monochrome on exterior and interior. Very worn surfaces. *Comparanda*: Boardman 1960, 140, pl. 36:VIII.13 (Hagios Ioannis, MPG). *Date*: PG.

IX P38 (Fig. 27). Cup or skyphos. Three joining fragments from rim. D. rim est. 12.0. Fine, soft, white (2.5Y 8/2) fabric. Outturned rim. Traces of black paint on interior and exterior. *Comparanda*: GR9 P23; Coldstream and Catling, eds., 1996, 27, fig. 65:12 (Knossos, MPG); Mook 2004, 171, fig. 12.7:E (Kavousi Kastro, SM/EPG); Tsipopoulou 2005, 286, fig. 124:AN8761 (Praisos, LG). *Date*: PG.

IX P39 (Fig. 27). Cup or skyphos. Four joining fragments from base, four body sherds, and lower handle attachment preserved. Max. pres. h. 5.3; d. base 5.0. Fine, soft, reddish-yellow (7.5YR 7/6) fabric. Possible traces of paint inside and out, but too worn or coated with sediment to be certain. *Date*: PG?

IX P40 (Fig. 27). Skyphos or cup. Single fragment preserving entire base. Max. pres. h. 4.5; d. 5.7. Fine, soft,

very pale brown (10YR 8/4) fabric, worn and encrusted. Conical foot with circular depression at center of underside. Traces of black paint. *Comparanda*: Mook 1993, 173–174:P4.178 (Kavousi Kastro, PG-SubPG). *Date*: PG.

IX P41 (Fig. 27). Skyphos or cup. Max. pres. h. 4.1; d. 4.5. Soft, worn, very pale brown (10YR 8/4) fabric, encrusted. Conical foot with circular depression at center of underside. Traces of black paint. *Comparanda*: Mook 1993, 173–175:P4.178 (Kavousi Kastro PG-SubPG); Coldstream and Catling, eds., 1996, 50, fig. 72:106 (Knossos, LPG). *Date*: PG.

IX P42 (IM 767; Fig. 27; Pl. 16). Bowl. Intact except for two chips on rim. H. 5.4; d. rim 11.5–12.0. Soft, micaceous fabric with color varying from red (2.5YR 5/8) to reddish-yellow (5YR 7/8–7.5 YR 7/6). Red (2.5YR 5/8) to light red paint (2.5YR 6/8) paint. Small everted rim, flattened on top; conical body; raised base. Uneven diameter. Monochrome interior; exterior worn, but probably monochrome. *Date*: PG?

IX P43 (Fig. 28). Lid. Nine joining fragments from rim and four nonjoining, preserving 25% of rim. Max. pres. h. 5.4; d. rim 16.0. Fine, soft, white (5Y 8/2) fabric, encrusted. Badly worn black paint. Vertical rounded rim. One fragment has a hole in it near the rim. Monochrome on interior and exterior. *Comparanda*: Coldstream and Catling, eds., 1996, 157, fig. 111:162 (Knossos, EG-MG). *Date*: G.

IX P44 (Fig. 28). Oinochoe. Large fragment comprising rim and neck, most of handle, and small portion of shoulder; missing lower body and base. Max. pres. h. 7.0. Soft, reddish-yellow (5YR 7/8) fabric; worn, encrusted surfaces. Possible traces of black paint on exterior. Monochrome? *Date*: PG?

IX P45 (IM 685; Fig. 28; Pl. 16). Pyxis. Restored: missing 80% of rim. H. 7.8; d. rim 7.7. Fine, soft, pink (7.5YR 7/4) fabric with dark inclusions. Flaky, worn paint, black faded to yellowish red (5YR 5/6). Sharply outturned rim; squat globular body; raised base, hollowed underneath. Monochrome exterior; interior of rim and underside of base painted. *Comparanda*: Brock 1957, 165, pl. 78:1470 (Knossos, LPG); Coldstream and Catling, eds., 1996, 248, fig. 142:134 (Knossos, Corinthian LPG); Kotsonas 2008, 142–144, fig. 34:A327 (Eleutherna, LPG). *Date*: LPG.

FINE DECORATED OR MONOCHROME WARES

IX P46 (Fig. 28). Oinochoe. Two base fragments, three fragments of rim and complete handle, eight joining fragments from neck and shoulder. H. est. 23.5; d. base 5.5. Fine, soft, chalky, white (5Y 8/2) fabric with tiny black inclusions. Petrographic sample KAV 15/96: Fabric Subgroup 1c. Traces of black paint. Surfaces worn and encrusted. Trefoil mouth; flattened handle; flat base. *Date*: PG-G?

IX P47 (Fig. 28). Neck-handled amphora. Two joining fragments preserving 75% of base, two fragments preserving 20% of neck with all handle attachments; eight

nonjoining fragments; missing rim. Max. pres. h. (top) 8.0; max. pres. h. (bottom) 5.0; d. base 6.0. Fine, soft, very pale brown (10YR 7/4) fabric, laminating and flaking. Petrographic sample KAV 15/104: Fabric Subgroup 1c. Surfaces almost entirely gone. Tall neck with two flattened vertical handles from neck to shoulder; ovoid body; slightly raised base. *Comparanda*: Coldstream and Catling, eds., 1996, 126, fig. 100:80.2 (Knossos, EPG). *Date*: EPG.

IX P48 (Fig. 28). Amphora or jug. Twenty joining fragments from neck, rim, and upper body preserving 10% of rim, 75% of neck with handle attachment, 30% of upper body, including one handle attachment; nonjoining base made up of four joining sherds, 40% preserved; 13 nonjoining fragments. Max. pres. h. 14.5; d. rim est. 9.8; d. base 5.2. Fine, soft, chalky, very pale brown (10YR 8/3) fabric. Traces of black paint on exterior, but surfaces too worn or coated to be certain. Tall wide neck with vertical rectangular handle; one fragment of similar shape, but slightly larger suggests a second handle. Attachment scar for handle on upper body. *Comparanda*: for similar manufacturing technique with added clay, Rethemiotakis and Englezou 2010, 65, fig. 80 (Elytna, PGB-EG). *Date*: PG.

MEDIUM-COARSE DECORATED WARE

IX P49 (V98.46; Fig. 28). Oinochoe. Mended from many fragments, preserving 75%, including full profile and handle. H. 25.0; d. rim. 7.9; d. base 10.3. Medium-coarse, rather hard, reddish-yellow (5YR 6/6) fabric with fairly large white angular inclusions. Very pale brown (10YR 8/4) slip. Black paint, very worn. Surfaces eroded and pock-marked. Flaring rim, squared off; narrow neck; elliptical vertical handle from rim to shoulder; ovoid body; flat base. Shoulder has scroll design; bands on base of neck, at maximum diameter of body, and on base. Handle has vertical wavy line down center. *Comparanda*: **IX P22**; for shape, Brock 1957, 156, pl. 12:142 (Knossos, PGA); Tsipopoulou 2013, 141–142, fig. 6:12261 (Piskokephalo, PGB); for scroll decoration, Popham 1992, 62, pl. 47:d (Knossos, SM); Coldstream and Catling, eds., 1996, 97, pl. 112:38, 39 (Knossos, SM-EPG). *Date*: EPG-MPG.

MEDIUM-COARSE MONOCHROME WARES

IX P50 (IM 788; Fig. 29; Pl. 16). Cup. Restored; handle missing except for lower attachment. H. 6.2; d. rim 11.4; d. base 4.0. Medium-coarse, soft, very pale brown (10YR 8/3) fabric, with black inclusions. Reddish-yellow (5YR 6/8) paint, worn, with heavy soil incrustation. Nearly vertical rim; round handle; rounded body; flat base. Rim and base uneven and slightly pushed in on one side. Circular depression at center of interior of base. Monochrome? *Bibliography*: Gesell, Day, and Coulson 1983, 404, 407, fig. 8:V17, pl. 77:e. *Comparanda*: **GR9 P42**; Brock 1957, 88, pl. 73:1011 (Knossos, PGB); Boardman 1960, 131, 137, fig. 5:I.47 (Hagios Ioannis, MPG-LPG); for base, Coldstream and Catling, eds., 1996, 236, fig. 138:105 (Knossos, PGB). *Date*: MPG-LPG.

IX P51 (Fig. 29). Cup. Mended from 16 fragments preserving 65% of body and lower handle attachment. H. 8.0; d. rim 11.0; d. base 4.5. Medium-coarse, soft, reddish-yellow (5YR 6/6) fabric with phyllites and hard red inclusions. Petrographic sample KAV 15/98: Fabric Group 2. Outturned rim; rounded body; thick, flat base. String marks on base. Monochrome paint, black on interior, worn to streaky red on exterior. *Comparanda*: **GR9 P41**; Coldstream and Catling, eds., 1996, 236, fig. 138:283.105 (Knossos, PGB); 255, fig. 143:287.6 (Knossos, LPG). *Date*: LPG.

IX P52 (Fig. 29). Cup or skyphos. Mended from seven fragments preserving 30% of profile; missing base and handle. Max. pres. h. 6.0; d. rim 11.0. Medium-coarse, soft, reddish-yellow (5YR 6/6–7.5YR 6/6) fabric with many small, hard white and greenstone inclusions. Sampled KAV 15/97: Fabric Group 3. Slightly outturned rim; rounded body. Very worn surfaces. Monochrome black paint. *Comparanda*: Tsipopoulou 2013, 152–153, fig. 13:12293 (Piskokephalo, LG). *Date*: PG?

IX P53 (IM 547; Fig. 29; Pl. 16). Bird askos. Restored from many fragments; tail and handle, body fragments missing. H. rest. 10.3; L. rest. 16.2; d. base 3.5. Medium-coarse, soft, very pale brown (10YR 7/3) fabric with large black inclusions. Dull and worn very dark gray (2.5YR N4) paint. Crudely made by hand, with irregularly-shaped spout; basket handle; conical foot. Monochrome. *Date*: SM-EPG.

IX P54 (Fig. 29). Small oinochoe. Single fragment preserving 80% of rim and neck, top of handle. Max. pres. h. 2.8. Medium-coarse, soft, reddish-yellow (5YR 6/8) fabric. *Date*: PG?

MEDIUM-COARSE SLIPPED WARES

IX P55 (V81.1; Fig. 29). Amphoriskos. Restored. Complete profile preserved; missing half of rim and neck, one handle, most of base. H. 16.1; d. rim 8.2; d. base 5.0. Medium-coarse, hard, red (2.5YR 5/8) fabric. Worn, light red (2.5 YR 6/8) worn; white slip on exterior. Tall cylindrical neck with vertical rim; two flattened vertical handles from lower neck to shoulder; globular body; raised base. Broad band at rim with reserved band at lip, possible bands on shoulder and at lower handle attachment. Band on interior of rim. *Date*: Venetian.

IX P56 (Fig. 29). Pithos. Seven fragments preserving rim and half of one handle. Max. pres. h. 12.6; d. rim 18.1. Medium-coarse, hard, reddish-yellow (5YR 6/6) fabric. Burned on exterior in places. Vertical rim, flattened on top; rounded body; two round horizontal handles on shoulder. No paint visible on exterior, but traces of white glaze on exterior and red slip inside. Band of red slip on interior of rim. *Comparanda*: **IX P57**. *Date*: Venetian.

IX P57 (Fig. 30). Pithos. Large fragment mended from eight sherds from rim and upper body. Max. pres. h. 8.5; d. rim 22.0. Medium-coarse, hard, light red (10YR 6/8) fabric with hard red inclusions. Burned on places on the

exterior. Red slip and white (10YR 8/2) glaze or paint. Vertical rim, flattened on top and slightly thickened inward. White paint or glaze on rim and from upper handle attachment down. Band of red slip on interior rim. *Comparanda*: **IX P56**. *Date*: Venetian.

COARSE DECORATED WARE

IX P58 (IM 550; [Fig. 30](#); [Pl. 17](#)). Neck-handled amphora. Restored; small fragments of rim missing. H. 25.5; d. rim 11.8; d. base 8.3. Coarse, soft, gritty, reddish-yellow (5YR 7/6) fabric with inclusions of small gray-blue stones. Flaky, black (7.5YR N2.5) paint, worn surfaces. Handmade, with very uneven rim and base. Tall neck with flaring rim; two round vertical handles from neck to shoulder; sharply offset shoulder; ovoid body; flat base. Monochrome except for panel on shoulder with meander pattern and reserved band on lower body. Interior of rim painted. *Comparanda*: for shape, Levi 1927–1929, 290, fig. 376 (Arkades, G); Coldstream and Catling, eds., 1996, 48, pl. 80:51 (Knossos, MG); 248, pl. 230:129 (Attic, LPG); 267, pl. 249:160 (MG); Tsipopoulou 2005, 203, fig. 17:H3183 (Adromyloi, LG); 284, fig. 17:AN8755 (Praisos, LG). *Date*: G–LG.

COARSE MONOCHROME WARES

IX P59 (IM 153; [Fig. 30](#); [Pl. 17](#)) Cup. Complete; mended from two pieces. H. 6.5; d. rim 11.0–11.8; d. base 4.5. Coarse, soft, reddish-yellow (5YR 6/6) fabric, with black and white inclusions. Dark gray (5YR 4/1) paint, worn. Rounded rim pinched out to form a crude spout; round vertical handle from inside rim to shoulder; rounded body; flat base. Handmade. Monochrome inside and out; two incised grooves around body. *Comparanda*: **GR20 P9**; Coldstream and Catling, eds., 1996, 146, fig. 106:6 (Knossos, EG–MG). *Date*: PG.

IX P60 ([Fig. 30](#)). Cup. Twelve joining fragments preserving base and 30% of rim, entire profile; three nonjoining rim fragments, one with handle attachment. H. 6.0; d. rim 11.4; d. base 4.1. Coarse, soft, reddish-yellow (5YR 7/6) fabric with frequent greenstone inclusions; very worn surfaces, with heavy soil incrustation. Petrographic sample KAV 15/95: Fabric Group 3. Slightly outturned rim; rectangular handle from top of rim to lower body; rounded body; flat base, hollowed underneath. Wheel ridging on

exterior. No traces of paint; may be plain or monochrome. *Comparanda*: Coldstream and Catling, eds., 1996, 78, fig. 78:10 (Knossos, LPG). *Date*: LPG?

Metal

IRON

IX M1 ([Fig. 30](#); [Pl. 17](#)). Spearhead. Three nonjoining fragments, one from near top (a), two from socket (b, c), including end of socket (c); very tip of blade, lower blade, and much of socket missing. Max. pres. (a) L. 6.7, (b) 2.5, (c) 2.3; max. pres. w. (a) 2.1, (b) 1.6, (c), 2.1; th. (a) 0.2–0.6, (b) 0.15, (c) 0.3. Surfaces corroded and cracked.

IX M2 (Vronda IX dump; [Fig. 30](#); [Pl. 17](#)). Knife. Two joining fragments from end of handle, with single rivet in center near end; point missing. Max. pres. L. 6.4; max. pres. w. 2.9; th. 0.3. Corroded, surfaces gone. Some traces of wood deposit from hilt on one side.

IX M3 (Vronda IX dump; [Fig. 30](#); [Pl. 17](#)). Knife. Single fragment preserving area near end of handle, with traces of rivet hole at other edge. Blade and tip missing; very end of handle gone. Max. pres. L. 5.0; max. pres. w. 1.8; th. 0.25–0.30.

IX M4 (Vronda IX dump; [Fig. 30](#); [Pl. 17](#)). Knife. Single fragment from blade. Max. pres. L. 4.8; max. pres. w. 2.1; th. 0.2. Corroded, surfaces gone. Traces of wood deposit on one side.

IX M5 (Vronda IX dump; [Fig. 30](#); [Pl. 17](#)). Knife. Single fragment from tip. Max. pres. L. 5.0; max. pres. w. 1.9; th. 0.3. Tip points slightly up. Surfaces corroded.

IX M6 (Vronda IX, cleaning inside tomb from south; [Fig. 30](#); [Pl. 17](#)). Knife. Single fragment preserving handle and beginning of blade. Max. pres. L. 4.2; max. pres. w. 1.8; th. 0.6. Surfaces corroded and cracked.

IX M7 (Vronda IX.2, object 2; [Fig. 30](#); [Pl. 17](#)). Knife. Single fragment of knife blade from near handle end; half of rivet hole preserved. Max. pres. L. 2.5; max. pres. w. 1.7; th. 0.3. Badly corroded.

IX M8 (Vronda IX.3, object 6; [Fig. 30](#)). Blade. Single fragment from blade of knife or weapon, preserving one edge. Max. pres. L. 3.0; max. pres. w. 2.0; th. 0.045. Corroded and cracked.

Vronda Tomb X

This tomb was first identified and excavated in 1981 (Gesell, Day, and Coulson 1983, 405–409; Day 1984) on a lower terrace to the north of Boyd's tombs, but not as far north as Vronda IX ([Fig. 6](#); [Pl. 2](#)). The tomb was placed at the edge of a terrace, with a modern terrace wall running across the top. There was thus

a sharp drop in elevation from south to north (from 406.68 m asl in the southeast to 405.03 m asl in the northeast). The area around the tomb was also excavated. The tomb had been robbed and contained little of the original contents. A pit dug below the floor of the tomb was found filled with dog bones,

stones, some fragmentary pottery, and a bronze pin fragment. Most of the pottery from the pit is nondiagnostic, but a few pieces date to the PG period and some to the Venetian era. Although the pit was originally thought to have been contemporary with the usage of the tomb (Gesell, Day, and Coulson 1983, 408–409; Day 1984, 21–22), it is now clear that the fill within it was deposited at some time in the Venetian or Ottoman periods.

Architecture

Tomb X is quite well preserved, with seven courses standing on the south, six on the west, and five on the east (Figs. 31, 32; Pls. 18A, 18B). It was constructed almost entirely of breccia boulders, with limestone employed only for the stomion. The ground plan is irregular, oval at the south but with square corners on the north to form a horseshoe shape (Fig. 31). It measures 1.60 m north–south × 1.30–1.36 m east–west. The stones were laid against the *tsakali* bedrock. The stomion is well built of limestone blocks and is unusually long. It measures 0.90–1.06 m in length and 0.70–0.74 m in width; the preserved height is 0.65 m. The lintel is no longer in place, but a large limestone block found just to the west of the stomion may once have served as the lintel. In front of the stomion, a pit that functioned as a sort of dromos had been dug into the *tsakali*. This pseudo-dromos measures 0.75 m north–south and 0.90 m east–west.

Stratigraphy

The tomb was built into the slope of the ridge, and some time after the walls were constructed a pit was dug beneath the floor into the *tsakali* bedrock (Fig. 32), undercutting the walls by as much as 0.10 m. At the bottom of the pit was a layer of fine, very pale brown (10YR 6/3) soil mixed with gravel (Level 8), possibly the surface upon which the fill above was thrown. The small amount of pottery recovered was SM or PG in date, including the spout of a stirrup jar or bird askos (X P1) and an open vessel with alternating pendant and accumbent loops (X P2). A number of stones at the very bottom appeared to resemble some sort of small structure, but no clear plan was discernible. The pit was 0.80 m deep and was filled up to the level of the bottom of the walls with a soft, light yellowish-brown (10YR 6/4) soil

mixed with a large quantity of stones (110 *zembilia* of stones were removed) and animal bones, belonging mostly to dogs, including puppies (Level 7; Pl. 18C). Pottery from this fill was mostly coarse and included the pedestal base X P4.

At the top of the rubble fill was a hard-packed soil that was thought to represent the floor surface of the tomb. It was slightly lower (0.10–0.16 m) than the undisturbed floor level in the pseudo-dromos in front of the tomb. Above this hard surface, the tomb chamber was filled with more soil and rubble, with larger stones at the bottom (Level 6) and medium-sized stones amid hard soil (Level 5) at the top of the deposit. Pottery from this fill deposit was mixed, including fragments of two closed decorated vessels of SM or PG date (X P5, X P6) and the pedestaled base of a glazed bowl of Venetian date. The upper part of the interior was found filled with loose soil and stones (Level 4) and produced very little pottery. In the stomion and pseudo-dromos a hard soil was found overlying *tsakali* bedrock (Level 4) and above that was a harder-packed reddish-yellow (7.5YR 7/6) soil with a large number of fist-sized and smaller stones (Level 3). This layer produced the lid or skyphos of PG date (X P3), along with a handle fragment from a skyphos, several small, fine rims from cups or skyphoi, and a possible krater rim. It may represent undisturbed soil from the time of the use of the tomb. Above this was slope wash and topsoil (Levels 1 and 2).

On the south side of the tomb, a layer of hard clay-like soil with many stones lay over the tomb (Level 3), with slope wash and topsoil directly above (Levels 1 and 2). On the north side, because of the terrace wall, the tomb, the stomion, and the pseudo-dromos lay immediately below the topsoil, and there had been very little accumulation.

The pit below Tomb X is unique. Because it seems to have been dug below the walls of the tomb, it was thought to be contemporary with the tomb construction (Gesell, Day, and Coulson 1983, 400). The pottery that was found within the pit was almost entirely coarse and not diagnostic, and there was no recognizable later material within it, such as was found in the fill within the tomb chamber. Radiocarbon analysis of the dog bones in 1988, however, showed clearly that they were Medieval (A.D.

1300–1400), and so they could not have been contemporary with the use of the tomb (see below, p. 356).

Burials

No human bone was recovered from Vronda X, but two partially formed, adult human teeth were found inside the tomb. These teeth were found commingled with the dog burials from the pit beneath the original level of the tomb floor, and they are probably to be associated with the use of the tomb in the Early Iron Age.

Burial 1

Type: disturbed inhumation

Age: juvenile, 5–7 years

Sex: unknown

Two incompletely formed, human permanent molars were found, a mandibular first molar with the root one-half complete, and a maxillary first or second molar fragment. The developmental stage of the teeth indicates that they belonged to a child, five to seven years old.

Faunal Remains

Nearly 7,500 animal bones and bone fragments were recovered from the lower levels of Tholos X in 1981 (Table 2). For about 3,350 of these specimens the species were identifiable. The assemblage was dominated by the remains of as many as 12 domestic dog (NISP 2,942) and domestic cat (NISP 256) skeletons. With the exception of one isolated dog bone and three sheep or goat bone fragments, all the remaining faunal materials were found in the lowest levels of the tholos, Levels 6–8. The vast majority of this bone deposit (NISP 6,624) was recovered from Level 7, near the bottom of the pit that extended below the original floor of the tholos. Refits of broken bones and likely physical matches in size of recovered dog and cat skeletal elements between them suggest that all of this material represents a single deposit, probably a refuse deposit that accumulated following the robbing of the tholos in the Medieval–Modern period.

The 12 domestic dogs were represented by all parts of the animal skeleton, and they appear to have entered the deposit as complete bodies. They ranged in age from puppies, represented by mandibles with

unerupted or deciduous dentition, to an older-aged individual, represented by a mandible with heavily worn and/or missing teeth. Four to eight of these animals were male, as four complete or nearly complete baccula and an additional four baccula fragments were recovered.

Measurement of a sample of complete adult long bones allowed estimation of the shoulder heights of the live animals (Harcourt 1974; Onar and Belli 2005). The estimates in height ranged from 35.80 to 70.90 cm (14.00 to 28.00 inches). The majority of the measured elements indicated animals ca. 60.00 to 65.00 cm in height, about the height of a modern Labrador retriever. A single smaller animal, about the size of beagle, and one larger animal, the size of a German shepherd, were also represented.

At least four domestic cats, both adult and kitten, were also present in the assemblage, represented by nearly complete skeletons, mandibles, and scattered elements. In sharp contrast to the faunal assemblage from the Late Minoan IIIC settlement at Vronda, common food animals—sheep, goat, pig, cow—were represented in the tholos by only a few scattered, isolated elements and element fragments. From Level 7 with the dogs and other animals came a single murex shell (*Hexaplex trunculus*; Table 3).

Pottery

The excavation of Tomb X produced 180 fragments of pottery weighing 2.97 kg. The largest amount of this material came from the pit within the tomb (60 fragments weighing 0.95 kg). Most of this pottery belonged to the time after the robbing of the tomb and was mixed, so it cannot tell us much about the date of the burials or the nature of the grave goods. The fragments from the very bottom of the tomb (Level 8), however, seem to have been undisturbed and included the spout of a bird askos or stirrup jar (X P1), probably of SM date, and a decorated fragment from an open vessel (X P2) that could be of any date from LM IIIC to EO. The pottery found in the soil over bedrock in the stomion should date the construction of the tomb, but unfortunately the small amount of material present was nondiagnostic. The undisturbed rocky harder fill in the stomion, which was probably deposited during the use of the tomb, produced some diagnostic vessels, including the lid or skyphos of PG date (X P3), a skyphos

handle, a small cup base, and some cup or skyphos rims, perhaps the remains of a drinking ritual enacted at the time of the burial. Within the tomb itself, the material in the pit was mostly coarse and nondiagnostic, while that in the fill of the chamber above the floor level included PG closed vessels (**X P5**, **X P6**) and glazed wares of the Venetian period (**X P7**). Another skyphos (**X P8**) found in this deposit had a joining fragment from the surface and was also of PG date.

Objects

Only a single fragment of metal (**X M1**) was found in the fill in the pit below the tomb, apparently left behind after the robbing. This item is probably the pin of a bronze fibula similar to those found in the other tombs.

Chronology

A terminus post quem of SM is provided by the bird askos or stirrup jar spout (**X P1**) recovered from the undisturbed soil overlying bedrock. Vessels found in the fill in the tomb belong to the PG (**X P8**) or MG–LG (**X P5**) periods. The lid or skyphos (**X P3**) found in the stomion is more difficult to date; as a skyphos it may be PG, but as a lid it seems to have its closest parallels in MG Knossos. The tomb seems, then, to have been in use from SM until MG–LG times. The glazed wares found in the fill and the surface are Venetian (green and yellow glazed wares, **X P7**) or Ottoman–modern (reddish-brown glazed wares). The coarse pedestal base has LG parallels in East Crete, but its white slip suggests a Venetian date. It is most likely that this tomb was robbed before the 14th century and that the pit was dug to dispose of unwanted animals beginning in that period.

Catalog of Finds from Soil above Bedrock

Pottery

FINE DARK-ON-LIGHT WARES

X P1 (Level 8; [Fig. 33](#)). Stirrup jar or bird askos. Spout only. D. rim. 2.2; max. pres. h. 3.7. Fine, light red (10R 6/8)

fabric. Reddish-yellow (5YR 7/8) slip. Band of black paint on interior rim, traces of paint on exterior. *Date*: SM.

X P2 (Level 8; [Fig. 33](#)). Cup or skyphos/deep bowl. Single fragment from body. Th. 0.3. Fine, soft, reddish-yellow (5YR 7/8) fabric with soil encrustation. Traces of black paint on exterior and interior. Pendant and accumbent loops, possibly part of a guilloche pattern or S-pattern. *Comparanda*: Coldstream and Catling, eds., 1996, 81, fig. 76:36 (Knossos, LG). *Date*: SM–EO.

Catalog of Finds from Stomion

Pottery

FINE DARK-ON-LIGHT WARE

X P3 (Level 2; [Fig. 33](#)). Lid or skyphos. Two joining fragments from rim and upper body. D. rim 19.0. Soft, reddish-yellow (5YR 7/8) fabric. Streaky, black paint. Worn surfaces. Rounded rim. Monochrome on exterior and interior. *Comparanda*: for shape (skyphos), Coldstream and Catling 1996, eds., 197, fig. 125:12 (Knossos, MPG–LPG). *Date*: PG?

Catalog of Finds from Fill in Pit

Pottery

COARSE WARE

X P4 (Level 7; [Fig. 33](#)). Coarse pedestal base. D. base 10.2. Gritty, light red (10R 6/8) fabric. White slip on exterior. Solid pedestal base, slightly hollowed underneath. *Comparanda*: Tsipopoulou 2005, 272, fig. 109:AN1586 (Praisos, LG). *Date*: LG?

Metal

BRONZE

X M1 (Level 7, south interior of tomb, object 27; [Fig. 33](#); [Pl. 19A](#)). Pin or fibula. Single fragment, slightly bent at one end. Max. pres. L. 2.7; max. pres. w. 0.5; d. 0.2.

Catalog of Finds from Fill in Chamber

Pottery

FINE DARK-ON-LIGHT WARES

X P5 (Levels 1 and 5; [Fig. 33](#)). Closed vessel. Two joining fragments from body. Th. 0.8. Fine, soft, yellow (10YR 7/6) fabric. Black paint on exterior, none on interior. Crosshatched lozenges and triangles in rows.

Bibliography: Gesell, Day, and Coulson 1983, 407, fig. 8:20, pl. 77:h. *Comparanda:* Coldstream and Catling, eds., 1996, 167, pl. 166:7; 170, pl. 168:129.1 (Knossos, MG); 204, pl. 190:25 (LG); 205, pl. 191:33 (LG early); 206, pl. 193:57 (LG late). *Date:* MG–LG.

X P6 (Level 6; [Fig. 33](#)). Closed vessel. Single fragment from shoulder. Fine, soft, pink (5YR 7/4) fabric. Worn, black paint. Zigzag. *Date:* LM IIIC–G.

GLAZED WARE

X P7 (Level 6; [Fig. 33](#)). Cup or bowl. D. base 5.8. Single fragment preserving entire base. Medium-coarse, reddish-yellow (7.5YR 7/6) fabric. Interior coated with yellow (2.5Y 7/8) glaze. Ring base. Incised X on underside of base. *Date:* Byzantine or Venetian.

Catalog of Finds from Topsoil and Slope Wash

Pottery

FINE DARK-ON-LIGHT WARE

X P8 (Levels 1 and 2; [Fig. 33](#)). Skyphos. Six joining fragments from handle and rim. Fine, soft, porous, reddish-yellow (7.5YR 7/6) fabric with white inclusions. Red (2.5YR 4/6) paint. Flaring rim; round horizontal handles. Monochrome coated outside except for reserved band in handle zone with oblique strokes. *Comparanda:* Brock 1957, 169, motif 2a (Knossos, SM); Coldstream and Catling, eds., 1996, 17, fig. 60:41 (Knossos, PGB–EG). *Date:* PG–EG.

Vronda Tomb XI

There was much excavation activity during the 1990 season in the area north of LM IIIC Building I–O–N, where Boyd had found a tholos (tomb 4; here Tomb VII) that was not located in the 1981 cleaning of the Vronda site ([Fig. 4](#); Boyd 1901, 134). Although not much remains from the LM IIIC settlement in this area, aside from a possible retaining wall, a new tholos tomb was located (Tomb XI) to the west of the location of Boyd's tomb 4 (and was at first erroneously thought to be this tomb; see Gesell, Day, and Coulson 1995, 91–92).

Tomb XI is a built tholos tomb excavated in 1990 in Trenches VW 14000 and VW 15000. In 1991, during consolidation of the walls of the tomb, some hard soil left at the bottom around the edges of the tomb was removed as VW 14050. Showing on the surface of these trenches before excavation was a long stretch of terrace wall and a large, modern stone pile. When the stone pile was removed (VW 14000), and the stones were placed on the modern terrace wall to the west, a tholos tomb came to light. This tomb was first identified as Boyd's tomb 4 (Tomb VII). Later, closer reading of her description of the poor preservation of tomb 4, of which only a tiny bit of the doorway remained (Boyd 1901, 134), indicated that this tholos could not have been Boyd's tomb 4, but was a new one, subsequently labeled Tomb XI.

Tomb XI extended over two trenches, VW 14000 and VW 15000, but it was decided that for convenience the entire interior of the tomb would be dug as part of Trench VW 14000. Only the top of the

tomb and the soil around it to the north were collected as part of VW 15000. The tomb was found filled with loose stones (VW 14001), some of them quite large, and it had been totally robbed, with only a small amount of hard soil containing bones and pottery clinging to the walls at the bottom (VW 14012, VW 14050). The pseudo-dromos and stomion of the tomb, however, had not been disturbed. After removal of the topsoil over the dromos (VW 14006), it was clear that a pit had been dug in front of the stomion. It was filled with rubble (VW 14007) that included fragments of fine cups and kraters, as found in the dromos deposits of the other tombs. A large flat stone had been placed in the pit in front of the doorway, and other large flat stones were found standing in the deposit at angles, possibly having slipped from their positions after being placed in front of the doorway. Below the stone "paving" and blocking stones (VW 14008) was a layer of clay (VW 14010, VW 14011) similar to the roofing clay found in the Vronda houses. This layer went down to bedrock.

Architecture

Tomb XI is a regular stone-built corbeled tomb, rectangular at the bottom (1.50–1.60 m east–west x 1.65–1.85 m north–south), with the stomion slightly off center ([Fig. 34](#); [Pl. 19B](#)). The stomion is 0.70–0.80 m long and 0.57 m wide ([Pls. 19C, 20A](#)). In front of the stomion is a very irregular pit that

probably represents a pseudo-dromos rather than a real dromos; it measures ca. 1.30 m in length and 0.72–0.88 m in width.

The tomb seems inferior in construction compared to the other tholoi at Vronda. It employs breccia boulders almost exclusively and lacks the limestone blocks found in other tholoi (Pl. 20B). The lintel is irregularly shaped, unlike the handsome squared lintels of the other tombs (e.g., Tomb II). The closest parallel in terms of construction is Vronda I. Much of the eastern interior wall has collapsed, and the lintel has partly fallen. Six irregular courses are preserved. The squared corners begin to round out for the corbeling in the second course on the northwest, the third course on the northeast, the fourth course on the southeast, and the fifth course on the southwest.

In addition to the tholos tomb, there is a terrace wall to the southeast. It is not certain whether this wall was constructed to hold back soil and wash from the tholos tomb or if it belongs with the LM IIIC settlement; it might also be part of a more recent structure.

Stratigraphy

Because it had been totally robbed, Tomb XI showed little stratigraphy. It was built on bedrock, and around the edges at the bottom was a small amount of very hard soil that must have come from the time of construction or use of the tomb (VW 14050). Otherwise, the tomb was found with a fill of loose soil amid large and small stones (VW 14000, VW 14001, VW 14012) that went from the bottom to the top of the tomb, about 1.45–1.60 m.

The area in and in front of the stomion, however, had not been cleared out prior to excavation. The doorway of the tomb was similar to that of the other tholos tombs; it was blocked first with clay, resembling the roofing clay used in the LM IIIC houses (VW 14011), and then with a large flat stone and more clay. The pit in front of the stomion had a layer of clay at the bottom (VW 14010.4) on the bedrock, but whether it was placed there deliberately or washed in during the partial collapse of the lintel is uncertain. A flat stone was placed above this clay layer, and several large stones were found above this clay layer (VW 14008, VW 14010.1). One large stone was probably originally set upright in front of the doorway, although it had later slipped despite the support

of other stones behind it. More rubble had accumulated or had been thrown on top of these stones (VW 14007). This layer of rubble above the flat stones contained fragments of cups and kraters, as was also the case in several of the other tholos tombs.

Outside the tomb there was very little deposition. Overlying bedrock was a layer of rocky soil (VW 14005) that lay below a rocky, light yellowish-brown (10YR 6/4) soil, probably slope wash (VW 14004). Topsoil (VW 14002, VW 14003, VW 14006, VW 14009, VW 15000) lay immediately above this rocky layer. Excavation around wall VW 14013 near the top of the tholos revealed a harder surface just east of the tomb. Farther to the south, east of terrace wall VW 14013, the soil went deeper but was not fully excavated.

Burials

Remains of two individuals were recovered from the hard soil that lingered around the edges of the tomb (VW 14050).

Burials 1 and 2

Type: disturbed inhumations

Age: adults

Sex: possibly one male and one female

Fragmentary partial skeletons of a minimum of two adults, possibly one male and one female, came from Tomb XI. The remains include cranial and postcranial bone from one very robust, large individual and cranial bone from a small adult with a very gracile skull. The extreme wear on the preserved teeth, two lower central incisors, suggests that one of the individuals was an older adult and may also indicate use of the teeth in some nonmasticatory function.

Remarkably, the preserved bone included a single styloid process of the temporal bone, the only one preserved in any of the Kavousi inhumations. As the name indicates, this is a thin, elongated projection of bone found on the base of the skull, and it frequently breaks off and is lost.

Faunal Remains

Two sheep or goat elements, a left innominate fragment and a femur distal diaphysis segment, were recovered from the lower levels of the pit in front of the doorway of this tholos (Table 2). A left

calcaneum fragment, possibly from a domestic cow, and a sheep or goat left mandible fragment were recovered from a deposit of stones over the pit.

Pottery

The pottery recovered from the area of the tholos is very fragmentary. In addition to the cataloged vessels, there were fragments from a small jug or lekythos, a fragment from the rim of an amphora or hydria, and a single fragment from the body of a skyphos of fine, hard fabric. None of the other material is closely datable, nor is it paralleled in the pottery from the other tholoi or cremation burials. Two of the cups or skyphoi (**XI P5**, **XI P6**) resemble monochrome cups from many of the graves and may be LG.

Only two vessels came from inside the tomb: a blue ware cup or skyphos (**XI P1**) and a monochrome cup or skyphos (**XI P2**). The similarity of **XI P1** to the LM IIIC blue ware from Karphi in shape and warping (Day 2011b, 254) suggests that it may be a LM IIIC vessel. The fabric of **XI P2** resembles that of cups from Vronda Tomb IX and may be PG.

Most of the pottery comes from the pseudo-dromos. The earliest and lowest are a krater fragment (**XI P4**) and a thick, heavy base from a vessel of uncertain shape and date (**XI P3**). These vessels were found in the soil and stones blocking the stomion. Above the flat stones in the pseudo-dromos and in the rubble thrown in to fill of the pit were conical cup **XI P10**, cups **XI P5** and **XI P6**, krater **XI P7**, and the LM IIIC cup base **XI P8**. The preponderance of drinking vessels above the level of the paver suggests the possibility that they may be left over from a post-funerary drinking ritual.

Chronology

The fragmentary nature of the material from the tomb makes dating difficult. One of the vessels found at the bottom of the tomb (**XI P1**) and a base from the blocking of the stomion (**XI P9**) are probably of LM IIIC date. These vessels may belong to the initial use of the tomb, but they may also represent “background noise” of LM IIIC, material that was in the soil and was left over from the use of the settlement; such material has been found in the cremation burials (see this vol., Ch. 3). The monochrome cup (**XI P2**), found in cleaning the tomb and therefore not from a secure context, is of a later date, PG–G. The vessels

found in the fill of the pseudo-dromos should give a date for the last use of the tomb, if indeed the entrances were opened during each burial event. These vases include the fine monochrome cups **XI P5** and **XI P6**, both of which resemble cups from the Geometric cremation burials at Vronda, and the body fragment from a fine skyphos that also looks late (not cataloged). The monochrome cup base **XI P8** also resembles material from the cemetery of enclosure burials. One krater rim, **XI P4**, may have belonged to a bell krater of SM–EPG date. The other krater, **XI P7**, is unusual and not similar to other vessels from either the settlement or the cemetery. The necked jar (**XI P11**) is similar to examples from Tomb IX and from the enclosure burials; it is certainly PG in style. In summary, the tomb, although it may have been constructed as early as LM IIIC, was certainly in use in the PG period, and it may have continued in use into the Geometric period.

Catalog of Finds from Hard Soil on Edges of Tomb Interior

Pottery

MEDIUM-COARSE MONOCHROME WARES

XI P1 (VW 14050.1; Fig. 35). Cup or skyphos. Large fragment (10 sherds) from rim. Max pres. h. 4.5. Medium-coarse, hard, gray (2.5YR 6/0) fabric with frequent small, white inclusions. Worn surfaces. Possible traces of paint on exterior. Warped and burned, probably misfired in kiln. *Date*: LM IIIC?

XI P2 (Tomb XI cleaning; Fig. 35). Cup or skyphos. Single large fragment from upper body near rim; missing rim, base, handle(s). Max. pres. h. 5.6. Medium-coarse, hard, reddish-yellow (5YR 6/6) to gray (5YR N/) fabric with gray phyllites, hard white angular inclusions, and some mica. Traces of black paint on exterior. Rather well-preserved surfaces on exterior. Ridging on interior. *Comparanda*: **GR3 P7**, **GR16 P8**, **GR28 P5**. *Date*: PG–G.

Catalog of Finds from Removal of Stomion Blocking

Pottery

FINE PLAIN WARE

XI P3 (VW 14010.2; Fig. 35). Cup or skyphos? Single fragment (two sherds) preserving 40% of base. Max. pres. h. 3.5; d. base 4.5. Fine, soft, light red (2.5YR 6/6) fabric. Very pale brown (10YR 7/3) slip. Well-preserved surfaces.

Raised flat base with string marks. *Comparanda*: **IX P32**. *Date*: PG.

MEDIUM-COARSE WARE

XI P4 (VW 14010.2; [Fig. 35](#)). Krater. Single fragment from rim. D. rim est. 20.0. Medium-coarse, soft, light red (2.5YR 6/8) fabric with frequent phyllites and hard white inclusions. Red (2.5YR 5/8) paint. Well-preserved surfaces. *Comparanda*: Coldstream and Catling, eds., 1996, 96, fig. 89:6 (Knossos, SM-EPG); 197, fig. 125:23 (EPG); 246, fig. 137:285.60 (SM-EPG). *Date*: SM-EPG.

Catalog of Finds from Removal of Stones above Paving in Pseudo-Dromos

Pottery

FINE MONOCHROME WARES

XI P5 (VW 14007.1; [Fig. 35](#)). Cup or skyphos. Single fragment (four sherds) from rim. D. rim est. 10.0. Fine, soft, light red (2.5YR 6/6) fabric with gray (5Y 6/1) core. Red (2.5YR 5/6) paint. Worn surfaces. Four grooves below vertical rim. Monochrome. *Comparanda*: for rim, **GR20 P9**; Mook 2004, 175, fig. 12.10:G, I (Kavousi Kastro, G); for ridges, **GR16 P7**, **GR20 P11**; Tsipopoulou 2013, 141, 143, fig. 7:12301 (Piskokephalo, PGB). *Date*: LG?

XI P6 (VW 14007.1; [Fig. 35](#)). Cup or skyphos. Single fragment from rim. D. rim est. 12.0. Fine, medium-soft, reddish-yellow (7.5YR 7/6) fabric. Once black paint worn to shadow. Worn surfaces. *Comparanda*: **GR5 P7**, **GR13 P11**, **GR21 P3**. *Date*: LG?

XI P7 (VW 14007.1; [Fig. 35](#)). Krater. Single fragment (two sherds) from rim. D. rim est. 21.0. Fine, soft, porous, reddish-yellow (5YR 6/6) fabric. Red (2.5YR 4/6) paint. Worn surfaces. Small vertical rim. Monochrome. *Date*: G?

XI P8 (VW 14007.3; [Fig. 35](#)). Cup or skyphos. Single fragment preserving 30% of base. Max. pres. h. 2.8; d. base 5.0. Fine, soft, reddish-yellow (5YR 7/6) fabric with some red phyllite inclusions. Black to red (2.5YR 4/6) paint on interior, exterior, and underside of base. Well-preserved exterior surfaces, worn on interior. String marks on base. *Date*: PG.

XI P9 (VW 14010.1; [Fig. 35](#)). Cup or deep bowl. Single fragment preserving 30% of base. D. base 5.0. Fine, soft, light reddish-brown (5YR 6/4) fabric, with some tiny red phyllite inclusions. Red (2.5YR 4/6) paint. Worn surfaces. Raised base, hollowed underneath. Interior may have reserved disk or may be solidly painted. *Comparanda*: Day and Glowacki 2012, fig. 133:WS P4. *Date*: LM IIIC.

FINE PLAIN WARE

XI P10 (VW 14008.2; [Fig. 35](#)). Conical cup? Single fragment preserving 60% of base. Fine, soft, reddish-yellow (5YR 6/6) fabric. Very pale brown (10YR 8/3) slip. *Date*: LM IIIC-PG.

Catalog of Finds from Topsoil

Pottery

MEDIUM-COARSE DECORATED WARE

XI P11 (VW 14000.3 and 4, VW 14006.1, VW 14009.1; [Fig. 35](#)). Necked jar. One fragment (two sherds) preserving 75% of base, one handle fragment and attachment, one fragment from shoulder. Max. pres. h. 7.2; d. base 9.0. Medium-coarse, rather hard, light red (2.5YR 6/6) fabric with infrequent red and gray phyllites. Black paint worn to shadow. Worn surfaces. Round horizontal handles on middle of body; flat base. Crosshatched triangle(?) on shoulder. *Comparanda*: **IX P8**; Kotsonas 2008, 105, fig. 17:A143 (Eleutherna, EG, adhering to PG tradition). *Date*: PG.

Addendum: Other Vessels Possibly from Vronda Tholos Tombs

A number of vessels in the Herakleion museum are labeled in the museum catalog as coming from "Boyd Excavations 1900." These vessels could come from the Vronda tholos tombs, Chondrovoulakes, the tholos tomb at Skouriasmenos, or the Kastro settlement. Four are consistent in date with those from the Vronda tholos tombs, and their shapes and decorative elements are similar to those from the other Vronda tholoi. For this reason, they are included here as an addendum. Others bearing the same label but of clearly earlier or later date are not discussed.

Of the cataloged vessels, the stirrup jar **Boyd P2** is the earliest. The shape is most commonly found in LM IIIC (Day 2011b, 291), but the Minoan flower decorating the top is a motif generally found on LM IIIB stirrup jars (e.g., Kanta 1980, figs. 10:7 [Knossos], 27:7 [Episkopi]; pl. 100:5, 6 [Enkomi]). However, it also appears as a motif on LM IIIC pottery, where it often has a multiple U-pattern on the interior (Day 2011b, 262). The juglet or oinochoe **Boyd P1** and the amphoriskos **Boyd P3** both find many parallels in EPG contexts; the amphoriskos is so similar

to examples from the Plai tou Kastro tomb at Kavoussi (Tsipopoulou 2005, 98, pl. 66; 99, pl. 70) that this type may be a popular local variation on the shape. The juglet **Boyd P4** could date as early as LM IIIC, but similar juglets also appear later, and the pendant crosshatched triangle would be appropriate on SM or EPG vessels.

Catalog

Pottery

FINE DECORATED WARES

Boyd P1 (HM 1018; [Fig. 36; Pl. 20C](#)). Oinochoe or juglet. Restored; neck and much of rim missing. H. pres. 8.6; max. d. 7.5; d. base 3.2. Fine, soft, very pale brown (10YR 8/3) fabric. Worn, faded, reddish-yellow (5YR 7/6) paint. May have had a trefoil mouth; short neck; round, vertical handle from rim to shoulder; small conical foot. Blob decoration on body; band at base of neck; top of handle painted. *Bibliography*: Tsipopoulou 2005, 75, pl. 20 (PG). *Comparanda*: Boardman 1960, 133, pl. 35:V.10 (Hagios Ioannis, MPG); Coldstream and Catling, eds., 1996, 94, pl. 110:55.1 (Knossos, EPG); Rethemiotakis and Englezou 2010, 96, fig. 52:130 (Elytna, EPG). *Date*: EPG.

Boyd P2 (HM 3696; [Fig. 36; Pl. 20C](#)) Stirrup jar. Restored; small fragments of handle and spout missing. H. 11.0; max. d. 10.8; d. base 3.9. Hard, pink (7.5YR 7/4) fabric and slip. Lustrous paint, weak to very dusky red (2.5YR 4/2–2/2), worn. Short false spout with slight knob on top; flaring spout nearly touches false spout; globular body; ring base. Decoration on shoulder: Minoan flower, multiple chevrons and concentric arcs (perhaps a debased Minoan flower); on either side of the spout, variations

of multiple arcs. Concentric circles on top of false spout. Bands on lower body. *Comparanda*: for shape, Day 2011b, 291 (Karphi, LM IIIC); for decoration, Hatzaki 2007, 238, fig. 6.28:4 (Knossos, LM IIIB early). *Date*: LM IIIB late or IIIC early.

Boyd P3 (HM 1024; [Fig. 36; Pl. 20C](#)). Amphoriskos. Complete except for one-third of rim and half of base; cracked on one side. H. 10.7; d. rim 5.2; d. base 3.6. Fine, hard, pink to reddish-yellow (5YR 8/4–7/6) fabric. Very dark gray (7.5YR N3) paint, well preserved. Short out-turned rim; ovoid body; two round horizontal handles on shoulder; high conical foot. String marks on base. Band at rim, zigzag in handle zone, three horizontal bands below. *Bibliography*: Tsipopoulou 2005, 75, pl. 22. *Comparanda*: Brock 1957, pl. 6:49, 60 (Knossos, EPG); Boardman 1960, pl. 37:IV.2 (Hagios Ioannis, EPG); Coldstream and Catling, eds., 1996, 27, pl. 64:J.6 (Knossos, EPG); Tsipopoulou 1997, 474, 478, fig. 17:5044 (Chamaizi Phatsi, SM); 2005, 98, pl. 66; 99, pl. 70 (Kavoussi Plai tou Kastro tomb, PG); Hayden 2003, 44, fig. 20:89 (Vrokastro, EPG). *Date*: SM–PG.

MEDIUM-COARSE DECORATED WARE

Boyd P4 (HM 3695; [Fig. 36; Pl. 20C](#)). Juglet. Mended; one-third of rim and section of handle missing. H. 9.3; max. d. 6.5; d. base 2.6. Medium-coarse, gritty, soft, reddish-yellow (7.5YR 8/6) fabric. Black to brown paint almost entirely worn off. Flaring rim; narrow cylindrical neck; rectangular handle from rim to shoulder; ovoid body; flat raised base. Neck coated; possible pendant crosshatched triangle on shoulder; handle coated; bands on lower body. Band on interior of rim. *Bibliography*: Tsipopoulou 2005, 121, pl. 126. *Comparanda*: for shape, Day 2011b, 55, fig. 3.5:K39.5 (Karphi, LM IIIC). *Date*: PG.



3

Enclosure Burials at Vronda

*Leslie Preston Day, Maria A. Liston, Kimberly Flint-Hamilton,
David S. Reese, and Lynn M. Snyder*

Grave 1

History and Details of Excavation

Grave 1, the first grave found in the settlement, lay on the southeast slope of the Vronda ridge, in the corner of what had been Room E3 of Building E East in the earlier LM IIIC settlement (Figs. 3, 4). It was discovered during the 1984 cleaning of Vronda in Trench V 800, and most of it was excavated as Locus V 805 (Day, Coulson, and Gesell 1986, 382–384). Some pottery from the burial had already been picked up in the surface collection, but most of the material came from Locus V 805 Level 2. Deposition was thicker in the northwest corner, the area protected by Walls V 802 and V 804, but grave material lay on or just below the surface toward the south and east (Pl. 21A). Some of the arrowheads, for example, were actually resting on the surface when excavation began (Pls. 21B, 21C). The trench was extended to the southwest (V 805 extension) to pick up more of the grave, and most of the arrowheads came from this area.

In 1987 the remainder of the grave was excavated in Trench V 300. Locus V 302 and Locus V 310

comprised the ashy soil from the cremation. The remainder of the grave material in the north balk of Trench V 300 was designated Locus V 337.

Architecture

Grave 1 had little preserved architecture (Fig. 37). Walls from Room E3 of LM IIIC Building E were used as boundaries for the cremation on the north (V 802) and west (V 804). Both walls V 802 and V 804 were preserved two courses high above a leveling course, and the limestone blocks in the walls were fissured from the heat of the fire (Pl. 21A). The burial space is estimated to have measured approximately 2.00 m north–south x 1.75 m east–west. Additional walls, perhaps consisting of a single row of stones, may originally have existed on the south and east, but no traces were encountered, perhaps because of the existence of a path on the modern surface in this area. The presence of the burned patch at the bottom of the grave and the fissuring of the limestone blocks of the walls indicate that the cremations took place in situ, and therefore Grave 1

was a cremation enclosure like many of the other graves on Vronda.

Stratigraphy

The stratigraphy in the burial was not complex. The cremation was made just above the clay that represents the collapsed roof of the LM IIIC Building E (V 805 Level 3). The upper part of this layer of clay was hard and pale brown (10YR 6/3) with a reddish patch, perhaps a result of burning from the pyre, and it was rather uneven (0.06–0.16 m), rising from 423.53 m asl in the southeast to 423.69 m asl in the corner. Above this surface on which the cremation was made lay the soft and ashy grave soil containing small stones and human bones (V 805.2 Level 2, V 805.3 Level 2, V 805.5 Level 2, V 302, V 310, V 337.2, V 337.4) up to the surface (V 800.1 Level 1). The depth of this cremation soil varied from 0.32–0.37 m along the north to 0.02–0.14 m in the south. Four vessels (**GR1 P1**, **GR1 P3**, **GR1 P4**, **GR1 P12**) were found smashed up against Wall V 802, the highest at 423.93 m asl (**GR1 P4**), and the lowest at 423.65 m asl (**GR1 P1**). A thin layer of surface soil lay above the cremation, in places so thin that artifacts were actually resting on the modern surface.

Burials

There were two commingled burials in the grave, both primary but disturbed. Because the bones lay so close to the surface, much skeletal material had been lost, and it is now impossible to distinguish the separate bodies. There is no evidence to indicate whether the burials were simultaneous or represent two different events. The bone is fully calcined, indicating a complete and thorough cremation. It was not possible to separate the remains of these two individuals.

Burial 1

Type: disturbed primary cremation

Age: adult, 20–40 years

Sex: male

Weight (combined skeletons): 1,572 g

The skeleton of Burial 1 is that of a young adult male, probably between 20 and 40 years old. The cranial fragments are very robust, particularly in the occipital region (Buikstra and Ubelaker, eds., 1994, 19–20). The bone is fully calcined, indicating

a complete and thorough cremation. This cremation burial was commingled with Burial 2 in the enclosure.

Burial 2

Type: disturbed primary cremation

Age: older adult

Sex: unknown

Weight: see above, Burial 1

This cremation burial is an older adult, as indicated by the very heavily worn teeth. The wear pattern is typical of normal masticatory wear, not specialized use of the teeth as tools (Hillson 1996, 231–232). Two molars are worn down to the roots, with no enamel left. It was not possible to determine the sex of Burial 2 based on the preserved remains, which were commingled with those of Burial 1.

Faunal Remains

Nearly all the identifiable animal bone from Grave 1 appears to be from sheep or goat, and it is heavily burned or calcined and fragmentary (Table 4). In addition, nearly 200 small, unidentifiable bone fragments, also burned, were recovered from the flotation residue. The tiny size of these fragments and the total lack of diagnostic characteristics make further analysis impossible.

Identifiable burned or calcined sheep or goat elements were limited to the lower front and hind leg and included a single proximal metacarpal fragment, a left distal tibia fragment, an unsided metatarsal diaphysis fragments (see also below), and a single second phalange unfused proximal epiphysis fragment.

In addition, a fragmented, heavily burned or calcined metatarsal was recovered from the area of the concentration of arrowheads to the south and east. This element, although visibly shrunken and distorted by the heavy burning, shows the deep and sharply marked dorsal groove characteristic of deer, and is tentatively identified as Cervidae (likely fallow deer). A single large vermetid shell was also found (Table 5).

Pottery

Grave 1 produced some 894 fragments of pottery weighing approximately 6.05 kg. The pottery, except for the five nearly complete pots found along

the walls, was fragmentary, and it is clear that much has been lost to erosion and surface activity. Thirty-three vessels have been cataloged, of which only 11 were substantially preserved; the others were in fragments, representing vessels that had been in the grave but were disturbed by later activity or surface erosion. Three other vessels that were represented by large numbers of fragments were not cataloged because they lacked diagnostic features. One large fragment (10 sherds and three nonjoining pieces) of fine ware clearly came from a single large vessel with a measurable interior diameter of 25.00 cm; the interior coating of red paint indicates that it was a krater. Two other vessels are represented by a large number of nondiagnostic fragments of soft, chalky fabrics: one of pale green fabric is made of 38 fragments (possibly representing more than one vessel), while 44 fragments, possibly from a closed vessel, have a pink fabric.

The five vessels found along the north wall of the grave belong to the last use of the feature. The small cup **GR1 P1** is of a shape that is found from the PG to EG periods at Knossos (Coldstream and Catling, eds., 1996, 134, fig. 103:30), but the chevron decoration is more common on MG and LG cups and skyphoi there (e.g., Coldstream and Catling, eds., 1996, 183–184, fig. 119:5; 218, fig. 131:99; 265, fig. 147:108), perhaps influenced by Attic MG II imports (Coldstream and Catling, eds., 1996, 264, fig. 145:70). The stemmed skyphos **GR1 P2** is one of a handful of this shape from the Vronda graves. The shape appears frequently in East Crete in the LG period; this example has close parallels in shape in vessels from Adromyloi (Tsipopoulou 2005, 211:H3223; 212, fig. 108:H3225), Hagios Georgios (Tsipopoulou 2005, 155, fig. 108:AN2319; 189, fig. 108:Σ4074), Zou (Tsipopoulou 2005, 315, fig. 108:AN1448), Praisos (Tsipopoulou 2005, 272, fig. 108:AN 1589), and Piskokephalo (Tsipopoulou 2013, 149–150, fig. 11:12284).

The wide-mouthed jug **GR1 P4** is also of an unusual shape, one that is sometimes included with cups but more often with jugs (Tsipopoulou 2005, 401). This shape has PGB–MG parallels at Fortetsa (Brock 1957, 38, 155, pl. 26:375), LG parallels at Sklavoi (Tsipopoulou 2005, 299, fig. 90:Σ3814), and EO parallels at Dreros (Tsipopoulou 2005, 61, fig. 89: HΔ26). The monochrome cup **GR1 P13** is

paralleled at Knossos in the EG period (Coldstream and Catling, eds., 1996, 229, fig. 135:4), but its size suggests a date of MG or later. A cup or skyphos with grooves below the rim (**GR1 P18**) is similar to a decorated EO kotyle from Knossos (Coldstream and Catling, eds., 1996, 204, fig. 129:12).

The large monochrome skyphos **GR1 P17** is unusual in shape, with a nearly vertical plain rim and large flat base. It is somewhat similar to an EPG–MPG example from Knossos, where it is thought to imitate Cypriot antecedents (Coldstream and Catling, eds., 1996, 198, fig. 126:44). The amphora **GR1 P11** is of a type that is prevalent in the EPG material at Fortetsa but persists into the LPG period (Brock 1957, 19, 142, pl. 10:181; Coldstream and Catling, eds., 1996, 336). It is also found in graves of LPG date at Hagios Ioannis (Boardman 1960, 130, pl. 33:I3, I4); the shape at Knossos, however, goes into the EO period (Coldstream and Catling, eds., 1996, 263, pl. 237). The Grave 1 example (**GR1 P17**) is more elongated than the PG examples but not as narrow as the EO amphora (**GR1 P11**). The latter vessel may have stood as a marker over the grave as in the cases of the amphorae in Graves 9 and 12 (see below); it shows no evidence of burning, and some of the fragments were found in the surface soil.

The vessel **GR1 P10** is probably a small jar or a jug, but its similarity to pyxides of late PG date from Eleutherna (Kotsonas 2008, 142–144, fig. 34:A144ζ, A274) suggests that it may have been a pyxis. However, it might also have been a kantharos, similar to a PG example from Chamaizi (Tsipopoulou 2005, 322, fig. 110:Σ3824), if it had a second handle. The rims of the fragmentary cups are all similar to examples from other Vronda graves and are probably to be dated in general to the LG period.

Overall, the Grave 1 ceramic assemblage consists of at least 26 vessels for drinking, of which the majority (16) are monochrome cups or skyphoi. Closed vessels are rare: there are two small juglets and a strainer vessel of which only the base is preserved. The large amphorae may have been used for storage of goods in the grave, but it is more likely that they were used as markers for the two burials within, by analogy with some of the graves on top of the ridge.

Objects

Like the pottery described above, the remainder of the grave assemblage is also unusual. The bronze fibula **GR1 M1**, although of standard arched shape, differs from contemporary examples because of its large size and its flat rectangular section. A small piece of bronze found adhering to cremated human bone may have come from this fibula or from another bronze object that has disappeared. Arrowheads comprise nearly all of the iron artifacts. The 17 arrowheads are of three different types, determined by the form of the blade: most common is the elongated leaf-shaped blade without pronounced shoulders and with a simple flat tang (**GR1 M2**, **GR1 M4**, **GR1 M5**, **GR1 M7–GR1 M12**, **GR1 M16**, **GR1 M17**); another (**GR1 M6**) is similar but has triangular shoulders. Three examples (**GR1 M13–GR1 M15**) are not as elongated and are more triangular in shape. Two blades (**GR1 M3**, **GR1 M18**) have barbed ends, although **GR1 M18** may have had square shoulders like some of the spearhead blades from other graves. In addition to the cataloged arrowheads, there are fragments of others (**Pl. 21D**), an indication that there were originally more than 17 of these items. Arrowheads are unusual in the Vron-da graves and only occur here and in Grave 12. A fragment of an iron awl (**GR1 M19**) found in the balk over Rooms 3 and 5, near the surface, probably came from Grave 1. A fragment of what may have been an iron sickle was found in V 310.1, but it was so fragmentary and corroded that it could not be drawn or inventoried.

The stone bead (**GR1 S1**) is made out of red and white carnelian, and it was clearly meant to function as an ornament. It is too tiny to have been a spindle whorl.

Chronology

Although there are some vessels with parallels in earlier periods, most of the pottery from Grave 1 is LG, with several possible examples of EO. It is likely that most of the burials in this enclosure were made in the the LG period, but the latest cremation(s) belongs to the EO period. The stemmed skyphos (**GR1 P2**) is a rare shape and only occurs in Graves 6, 19, and 28 (see below). Grave 1 may belong to the same phase as these graves.

Catalog

Pottery

FINE DECORATED WARES

GR1 P1 (V84.77; V 805 Level 2, pot 1; **Fig. 38**; **Pl. 21D**). Cup. Restored from 12 fragments, 95% preserved, missing bit of rim and body. H. 5.0; d. rim 6.8–8.0; d. base 3.7. Fine, soft fabric with dark gray phyllite inclusions; pale brown (10YR 6/3), probably discolored from fire. Black paint, worn to brown. Worn surfaces. Chevrons in handle zone. *Bibliography*: Day, Coulson, and Gesell 1986, 383–384, fig. 14:42, pl. 84:h. *Comparanda*: for shape, Coldstream and Catling, eds., 1996, 146, fig. 106:6 (Knossos, EG–MG). *Date*: LG, imitating Attic MG.

GR1 P2 (V84.78; V 805 Level 2, pot 3; **Fig. 38**; **Pl. 21D**). Stemmed skyphos. Restored from 28 fragments, 90% preserved, including full profile; missing half of rim, part of one handle, small fragments of base and lower body. H. 11.5; d. rim 10.7–11.5; d. base 6.0. Fine, soft, porous, very pale brown (10YR 7/4) fabric with a few quartz inclusions. Thick and glossy black paint. Well-preserved surfaces. Possible traces of burning. “Running dog” or running loop pattern. *Bibliography*: Day, Coulson, and Gesell 1986, 383–384, fig. 14:39, pl. 84:f. *Comparanda*: Tsipopoulou 2005, 315, fig. 108:AN1448 (Stavromenos Zou, LG); for decoration, Brock 1957, 167, pl. 44:656 (Knossos, G). *Date*: LG.

GR1 P3 (V 805 Level 2, V 310.2, V 337.2; **Fig. 38**). Skyphos or cup. Partially mended into two large fragments, one from each side (four sherds each); four nonjoining fragments. Tiny piece of rim, 15% of upper body preserved; missing handle(s), lower body, and base. D. rim est. 13.6. Fine, soft, reddish-yellow (7.5YR 7/6) fabric. Reddish-yellow (7.5YR 8/6) slip. Black paint worn to brown shadow. Very worn surfaces. All but one fragment totally burned; slip has turned black, paint lighter (negative image). Side A has cable pattern; side B has metope of upright chevrons between vertical lines. *Date*: LG–EO.

GR1 P4 (V 805 Level 2, pot 4; **Fig. 38**). Wide-mouthed jug. Partially mended into two large fragments, one from base (16 sherds), one from rim (six sherds); seven nonjoining fragments. Vessel 75% preserved, including entire base and lower body, 35% of rim, both handle attachments. H. est. 9.9; d. rim 5.5; d. base 3.4. Fine, very soft, reddish-yellow (7.5YR 7/6) fabric with white quartz and black inclusions. Traces of brown paint, inside and out. Very worn surfaces. A few fragments burned. Foliate band on body. *Bibliography*: Day, Coulson, and Gesell 1986, 383–384, fig. 14:41, but redrawn. *Comparanda*: Tsipopoulou 2005, 61, fig. 89:HA26 (Dreros, EO). *Date*: LG–EO.

GR1 P5 (V 302.1; **Fig. 38**). Open vessel. Four fragments and three nonjoining fragments preserving nearly all of base and one decorated fragment from body.

D. base. 3.0. Fine, soft, light red (2.5YR 6/6) fabric. Traces of red paint. Very worn surfaces. No trace of burning. Decoration of concentric circles, semicircles, or loops. *Date*: LG?

GRI P6 (V 805 Level 2; [Fig. 39](#)). Kalathos. Large fragment of body from near base to near rim, two nonjoining rim fragments. D. rim est. 20.0. Fine, soft, very pale brown (10YR 7/4) fabric, light gray (5Y 7/2) on surface, with some black and white inclusions. Very worn surfaces. Body and one rim fragment burned. *Date*: LPG (as suggested by size; see Coldstream 1996, 377).

GRI P7 (V 302.1, V 337.2, V 337.4; [Fig. 39](#)). Kalathos. Four fragments from rim. D. rim est. 23.0. Fine, medium-soft, gray (5Y 7/2) fabric with gray (5Y 7/1) core, heavily burned. Groove on top of rim, ridge outside. Similar to **GRI P6** but probably a different vessel. *Date*: LPG.

GRI P8 (V 805 Level 2, V 337.2; [Fig. 39](#)). Small jug. Six joining fragments from base, four joining fragments from upper body, one fragment from neck, and 18 body sherds preserving 20% of entire vessel including 50% of base, lower handle attachment. D. rim est. 3.0; d. base 2.5. Fine, soft, pink (7.5YR 7/4) fabric. Black paint. Very worn surfaces. Most of fragments burned gray on interior. *Comparanda*: Tsiopoulou 2005, 163, fig. 87:AN2427 (Hagios Georgios, LG); Rethemiotakis and Englezou 2010, 38, fig. 18:31 (Eltyna, EPG). *Date*: LG.

GRI P9 (V 805 Level 2; [Fig. 39](#)). Juglet. Single fragment from rim and neck. Max. pres. h. 1.4. Fine, soft fabric, burned to gray. Black paint. Very worn surfaces. *Date*: LG?

GRI P10 (V 310.2, V 805 Levels 2 and 4; [Fig. 39](#)). Jug or jar. Ten joining and nine nonjoining fragments from rim and upper body and possibly a burned fragment of base (not drawn), preserving 35% of vessel, including nearly complete profile and one handle attachment. D. rim 6.9; d. base est. 4.0–5.0. Fine, soft, reddish-yellow (7.5YR 7/6) fabric with tiny white inclusions; base burned to gray. Red (2.5YR 4/6) paint. Very worn surfaces. Possible bands on exterior. *Date*: PG.

GRI P11 (V 800, V 805 Levels 2 and 3, V 302.1, V 337.2, V 337.4; [Fig. 39](#)). Amphora. Seventeen joining fragments preserving 30% of rim and neck, including one handle attachment; four joining fragments from base; one fragment from elliptical vertical handle; 37 body fragments. H. est. 74.8; d. rim 22.5; d. base 17.0. Fine, soft, reddish-yellow (7.5YR 7/6) fabric with some quartz inclusions, increasing in frequency toward base. Petrographic sample KAV 15/45: Fabric Group 7. Pink (7.5YR 7/4) slip. Yellowish-red (5YR 5/6) paint. Worn surfaces. Handle attachment on neck and handle fragment indicates at least one vertical handle; a second would suggest an amphora. *Comparanda*: Lebessi 1970, 281, pl. 390a:40 (Mastambas, PGB); Rethemiotakis and Englezou 2010, 36, fig. 16:24 (Eltyna, EPG-MPG); 64, fig. 37:78 (LPG). *Date*: PG–EO.

GRI P12 (V 800.1; [Fig. 39](#)). Amphora or large closed vessel. Single fragment from base. D. base 14.0–15.0. Fine, soft, reddish-yellow (7.5YR 7/6) fabric, with black and white inclusions. Worn surfaces. *Date* unknown.

FINE MONOCHROME WARES

GRI P13 (V 805 Level 2, pot 2, V 337.2; [Fig. 39](#)). Cup. Partially mended from 25 joining fragments, 26 nonjoining fragments, preserving 75% of vessel, including most of base, full profile, part of handle. H. 8.1; d. rim 10.0; d. base 5.5. Fine, soft to medium-soft porous fabric, reddish yellow (7.5YR 7/6) at core, very pale brown (10YR 8/4) on surface; yellowish-red (5YR 5/6) paint. Worn surfaces. Many burned fragments join with unburned ones and thus were burned after breakage. Monochrome inside and out, including underside of base. *Bibliography*: Day, Coulson, and Gesell 1986, 383–384, fig. 14:43. *Comparanda*: **GRI P9**. *Date*: LG.

GRI P14 (V 337.4; [Fig. 39](#)). Cup. Single fragment from rim, preserving handle attachment on interior. Max. pres. h. 1.5. Fine, soft, reddish-yellow (5YR 7/6) fabric. Very pale brown (10YR 8/4) slip. Traces of red paint on exterior. Worn surfaces. *Date*: LG.

GRI P15 (V 302.1, V 337.2, V 805 Level 2; [Fig. 39](#)). Cup. Seven nonjoining fragments from rim, including handle attachment. Max. pres. h. 2.1. Fine, soft fabric, burned various shades of gray. Black paint. Worn surfaces. Monochrome inside and out. *Date*: LG.

GRI P16 (V 805 Level 2, pot 2; [Fig. 40](#)). Skyphos. Partially mended into two large fragments (five sherds, eight sherds) with seven nonjoining fragments, preserving 40% of rim, one handle; missing base and second handle, most of lower body. D. rim 13.5. Fine, soft, very pale brown (10YR 8/4) fabric with frequent small red and gray phyllite inclusions. Petrographic sample KAV 15/47: Fabric Group 7. Traces of red to black paint. Very worn surfaces. No burning. Monochrome. *Comparanda*: Haggis et al. 2007b, 261, fig. 14.6 (Azoria, LO). *Date*: EO.

GRI P17 (V 805 Level 2; [Fig. 40](#)). Skyphos or kotyle. Partially mended from 39 fragments, preserving 60% of vessel, including full profile, all of base, one handle; missing second handle. H. 9.8; d. rim 16.0; d. base 7.0. Fine, very soft and chalky, micaceous, very pale brown (10YR 7/3) fabric. Red to black paint. Painted on interior, exterior, and underside of base. Very worn surfaces. Some fragments burned. *Bibliography*: Day, Coulson, and Gesell 1986, 383–384, fig. 14:40. *Date*: LG.

GRI P18 (V 302.1, V 310.1, V 337.2, V 339.1, V 800.1; [Fig. 40](#)). Cup or skyphos. Partially mended from eight fragments from upper body and rim, 5% preserved; missing base, lower body, handle(s). D. rim est. 15.0. Fine, soft, pink (7.5YR 7/4) fabric. Traces of dark paint. Surfaces very worn. Two fragments totally burned. Monochrome. Grooves below rim. *Date*: LG.

GRI P19 (V 337.2, V 805 Level 2; [Fig. 40](#)). Cup or skyphos. Large fragment (two sherds) from rim, nonjoining rim fragment; missing lower body, base, handle(s). D. rim est. 13.0. Fine, soft, light gray (2.5Y 7/2) fabric, totally burned and pitted. Black paint. Worn surfaces. Grooves on top of rim. Monochrome. *Date*: LG.

GRI P20 (V 805 Level 2; [Fig. 40](#)). Cup or skyphos. Two joining and three nonjoining fragments from rim; missing lower body, base, handle(s). D. rim est. 12.0. Fine, porous, pale yellow (5Y 8/2) fabric, totally burned. Some small black inclusions. Very worn surfaces. Probably monochrome. *Date*: LG.

GRI P21 (V 337.2, V 805 Level 2; [Fig. 40](#)). Cup or skyphos. Two nonjoining fragments from rim. Max. pres. h. 2.3. Fine, soft, light reddish-brown (5YR 6/4) fabric, very pale brown (10YR 8/4) slip. Very worn surfaces. Tall rim. *Date*: LG.

GRI P22 (V 310.1; [Fig. 40](#)). Cup or skyphos. Single fragment from rim. Max. pres. h. 1.8. Fine, soft fabric, burned gray. Black paint. Worn surfaces. *Comparanda*: for rim type, **GR12 P6**, **GR20 P10**, **GR20 P12**, **GR28 P16**. *Date*: LG.

GRI P23 (V 310.1, V 337.2, V 337.4; [Fig. 40](#)). Cup or skyphos. Three nonjoining fragments from rim. D. rim est. 12.0–15.0. Fine, soft fabric, burned gray. Black paint. Worn surfaces. Monochrome inside and out. *Date*: LG.

GRI P24 (V 337.4; [Fig. 40](#)). Cup or skyphos. Two fragments from rim. Max. pres. h. 1.5. Fine, medium-soft fabric, burned to gray. Black paint. Worn surfaces. Monochrome inside and out. *Date*: LG.

GRI P25 (V 310.1; [Fig. 40](#)). Cup or skyphos. Single fragment from rim. Max. pres. h. 1.6. Fine, soft, very pale brown (10YR 8/3) fabric. Worn surfaces. *Date*: LG.

GRI P26 (V 805 Level 2; [Fig. 40](#)). Cup or skyphos. Single fragment from base. D. base 6.0. Fine, medium-soft, reddish-yellow (5YR 7/6) fabric. Very pale brown (10YR 8/3) surface. Black paint on exterior. *Date*: LG.

GRI P27 (V 337.1, V 800.1; [Fig. 40](#)). Cup or skyphos. Two fragments from base. D. base 5.0–6.0. Fine, soft, reddish-brown (7.5YR 7/6) fabric. Very pale brown (10YR 8/4) slip. Very worn surfaces. Grooves around base on exterior. *Date*: LG.

GRI P28 (V 302.1; [Fig. 40](#)). Cup or skyphos. Two fragments from base. D. base est. 5.0. Fine, soft fabric, burned gray. Black paint. Worn surfaces. String marks on base. Monochrome. *Date*: LG.

GRI P29 (V 302.1; [Fig. 40](#)). Cup or skyphos. Two joining fragments from base. Max. pres. h. 2.0. Fine, soft, reddish-brown (7.5YR 7/6) fabric, with gray core. Black to brown paint. Well-preserved surfaces on interior, worn on exterior. Monochrome. *Date*: LG.

GRI P30 (V 302.1; [Fig. 40](#)). Cup or skyphos. Two joining fragments preserving 65% of base. D. base 4.5. Fine, soft, light red (10R 6/6) fabric, very pale brown (10YR 7/3) on surface. Black paint. Worn surfaces. String marks on base. Monochrome. *Date*: LG.

GRI P31 (V 805 Level 2; [Fig. 40](#)). Strainer vessel. Three joining and two nonjoining fragments from base. D. base est. 6.0. Fine, soft, reddish-yellow (7.5YR 7/6) fabric, very pale brown (10YR 8/3) surface. Black paint on exterior. Worn surfaces. One fragment burned. Base pierced with holes. *Comparanda*: Hallager and Hallager, eds., 1997, 52, pl. 113:71-P 0798 (Chania, LG II?). *Date*: LG.

GRI P32 (V 805 Level 2; [Fig. 40](#)). Closed vessel. Two joining fragments preserving entire base. D. base 4.5. Fine, soft, reddish-yellow (5YR 7/6) fabric with some dark inclusions. Worn surfaces, partly burned. Grooves around outside near base. *Date*: LG?

MEDIUM-COARSE WARE

GRI P33 (V 337.4, V 805 Level 2; [Fig. 40](#)). Cup. Fragment (four sherds) from lower body and base, one small fragment from rim, one handle attachment, and 19 body fragments. D. base 6.0–7.0. Medium-coarse, reddish-yellow (5YR 6/6–7.5YR 7/6) fabric with frequent phyllite inclusions. Petrographic sample KAV 15/46: small low-fired metamorphic group. Flaking surfaces. Rim coated with what looks like decomposed iron. *Date*: LG?

Metal

BRONZE

GRI M1 (V84.68; V 805.3 Level 2, object 1; [Fig. 41](#); [Pl. 21D](#)). Bronze fibula. Mended from five fragments; complete except for tip of pin. Max. L. 8.8; max. w. 5.2; th. 0.2. Badly corroded. Arched. Flat catch plate; flattened bow, thin and rectangular in section, becoming thicker and square near core. Large pin, round in section. *Bibliography*: Day, Coulson, and Gesell 1986, 382, pl. 80:g. *Comparanda*: Sapouna-Sakellaraki 1978, 48–49, pl. 6:170 (type IId, 10th–9th century).

IRON

GRI M2 (V84.64a, HNM 15729; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 21D](#)). Iron arrowhead. Nearly complete in two fragments. Max. pres. L. 7.3; max. w. 1.25; th. 0.5. Surfaces worn and corroded. Short (2.5) tang, leaf-shaped blade. *Bibliography*: Day, Coulson, and Gesell 1986, 382, pl. 80:j top.

GRI M3 (V84.64c, HNM 15729; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 21D](#)). Iron arrowhead. Single fragment, nearly intact; missing end of tang, tip of barb, chip from blade. Max. pres. L. 4.3; max. w. 1.8; th. 0.5. Surfaces worn and corroded; some original surface on each side. Straight tang, short barbed blade. *Bibliography*: Day, Coulson, and Gesell 1986, 382, pl. 80:i (shown with tang that did not belong). *Comparanda*: Brock 1957, 54, 202, pl. 171:574 (Knossos).

GRI M4 (V84.64b, HNM 15729; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 21D](#)). Iron arrowhead. Mended from two fragments; missing point. Max. pres. L. 5.1; max. w. 1.3; th. 0.5. Surfaces worn and corroded; some original

surface on one side. Short (2.1) tang, leaf-shaped blade. *Bibliography*: Day, Coulson, and Gesell 1986, 382, pl. 80; middle.

GR1 M5 (V84.64d, HNM 15729; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 21D](#)). Iron arrowhead. Complete in two fragments. Max. pres. L. 7.3; max. w. 1.6; th. 0.5. Very corroded. Long (2.9) tang, leaf-shaped blade. *Bibliography*: Day, Coulson, and Gesell 1986, 382, pl. 80; bottom.

GR1 M6 (V84.65a, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Single fragment of blade; missing tang. Max. pres. L. 4.6; max. w. 1.4, th. 0.3. Well-preserved surfaces. Long, almost triangular blade.

GR1 M7 (V84.65b, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Nearly complete in two fragments; missing tip. Max. pres. L. 6.1; max. w. 1.5; th. 0.4. Corroded, but some original surface preserved. Short (2.2) tang, leaf-shaped blade. Tang was originally put on **GR1 M3**.

GR1 M8 (V84.65c, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Complete in two fragments. L. 6.5; max. w. 1.3; th. 0.4. Very corroded; little of the original surface survives. Short (2.2) tang, narrow leaf-shaped blade.

GR1 M9 (V84.65d, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Single fragment, missing tang and tip. Max. pres. L. 4.0; max. pres. w. 1.4; th. 0.5. Very corroded. Leaf-shaped blade.

GR1 M10 (V84.65e, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Single fragment, missing tang, tip, and one tang. Max. pres. L. 3.6; max. pres. w. 1.5; th. 0.4. Corroded, but some preserved surfaces. Short, probably barbed blade.

GR1 M11 (V84.65f, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Complete in three fragments. L. 6.5; max. w. 1.2; th. 0.3. Very corroded; only a few surfaces remain. Short (2.2) tang, narrow leaf-shaped blade.

GR1 M12 (V84.65g, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Single fragment; missing tang. Max. pres. L. 3.0; max. pres. w. 1.3; th. 0.3. Corroded, but with some original surfaces. Leaf-shaped blade.

GR1 M13 (V84.65h, HNM 15730; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Single fragment

of blade, missing tang. Max. pres. L. 3.4; max. pres. w. 1.3; th. 0.3. Corroded, but with some original surfaces. Short, triangular-shaped blade.

GR1 M14 (V84.66a, HNM 15731; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Complete in two fragments. L. 5.1; max. w. 1.4; th. 0.5. Very corroded; some surface preserved on one side. Short (2.2) tang, short blade in shape of squat leaf. *Comparanda*: Courtois 1984, fig. 3:56, in bronze.

GR1 M15 (V84.66b+g, HNM 15731; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Complete in two fragments. L. 5.0; max. w. 1.4; th. 0.3. Corroded; little surface remains. Short (1.5), pointed tang, leaf-shaped blade.

GR1 M16 (V84.66c, HNM 15731; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Nearly complete in two fragments; missing tip of blade. Max. pres. L. 6.0; max. pres. w. 1.2; th. 0.5. Badly corroded. Short (2.4) tang, long, narrow, leaf-shaped blade.

GR1 M17 (V84.66d, HNM 15731; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Two joining fragments; missing tip of blade. Max. pres. L. 5.2; max. w. 1.3; th. 0.5. Very corroded. Longer (2.6) tang; narrow, leaf-shaped blade.

GR1 M18 (V84.66f; V 805.5 Level 2, object 3; [Fig. 41](#); [Pl. 22A](#)). Iron arrowhead. Single fragment from tang and lower blade; missing upper blade and tip. Max. pres. L. 3.3; max. pres. w. 1.9; th. 0.4. Very corroded. Short (2.1) tang; blade comes out at right angles to tang; possibly originally barbed.

GR1 M19 (V 201.1, object 1; [Fig. 41](#)). Iron awl. Single fragment preserving pointed end and 50% of the tool; missing thicker end. Max. pres. L. 5.00; d. 0.04–1.00. Corroded and cracked.

Stone

GR1 S1 (V84.67, IM 1013; V 805.7 Level 3, object 4; [Fig. 41](#); [Pl. 22A](#)). Stone bead. Intact, but cracked. H. 0.9; d. 1.1; d. hole 0.2; wt. 1.0 g. Mottled red and white stone, possibly carnelian. Biconical, though irregular in shape. *Bibliography*: Day, Coulson, and Gesell 1986, 382, pl. 80:h.

Grave 2

History and Details of Excavation

Grave 2 was uncovered during the 1984 cleaning in the corner of Trench V 12400 along the east wall of Room C2 of the earlier LM IIIC Building C ([Figs. 3,](#)

[4](#)). Here a large pile of stones mixed with ashy soil and burned bones was identified as Locus V 12402. The stone pile, with its accompanying deposit, was thick along the east where the house wall supported

it, but it thinned out to the west and south where there had been serious erosion. None of the soil was removed for water sieving. In 1990 the north balk of Trench V 11900 (Locus V 11950) and the east balk of Trench V 12400 (Locus V 12452) were removed to see if more of the grave could be found, but only fragments of one cup remained from the burials.

Architecture

There was no architecture or any evidence for construction associated with the burials, but the existing house walls of Room C2 (V 11901, V 11902) and projecting spurs of bedrock on the north and southwest were apparently used as boundaries for the burial material (Fig. 42). The human remains were located along the east wall of C2, perhaps placed in a fissure in the bedrock. The area of ashy soil and stones extended 1.88 m north–south x 1.80 m east–west.

Stratigraphy

The deposit was uniform throughout, consisting of large quantities of stones with fine ashy soil (V 12402). It was difficult to distinguish the deposit from the wall tumble within the LM IIIC room. The stone tumble with bones began just below the surface at 425.38 m asl, and it continued down to the layer of roofing clay from the LM IIIC house at 424.87 m asl, a depth of 0.45–0.50 m. The deposit was deeper along the wall on the east but thinned out toward the west and north; much material may therefore have been lost to erosion.

Burials

Partial remains of a cremated adult were found in this grave. Because the soil was not kept for water sieving, some remains may have been lost, but the surviving fragments suggest that these were discard deposits of bone, possibly a dump from nearby Grave 5. There are, however, no joins between the bones or pottery in Graves 2 and 5 to prove a connection. Additional evidence that this was a discard deposit is the lack of any traces of burning in situ.

Burial 1

Type: cremation discard deposit

Age: adult

Sex: female

Weight: 667 g

The skeleton of Burial 1 is not completely calcined. The left side of the body appears to have been less thoroughly burned. The cranium is very gracile, with small mastoids and zygomatic arches and no brow ridge development, indicating a female (Bui-kstra and Ubelaker, eds., 1994, 19–20). The post-cranial bones are small, with no apparent muscle markings. There were no pathological conditions noted on the bone.

There are a few fragments of another adult individual in this grave. The quantity of bone is so small that it supports the identification of this deposit as being part of another nearby grave.

Faunal Remains

Faunal materials from Grave 2 were limited to four isolated, unburned canid (dog) teeth, a number of unburned sheep or goat tooth fragments, and eight possible animal bone fragments, both burned and unburned (Table 4).

Pottery and Objects

Little pottery and no objects were found in the Grave 2 deposit, making it highly unusual. Of the 0.64 kg of pottery collected from the grave area, 18 fragments belonged to two vessels weighing 0.05 kg. Vessel **GR2 P1** is a monochrome cup or skyphos with rolled rim, similar to examples from other graves, especially skyphos **GR1 P16**. The other vessel (**GR2 P2**) represents a unique shape of uncertain type; it may be a skyphos, like an example from LG or EO Knossos (Coldstream 1972, 96, fig. 15:G100), or it may have served as a lid. Rough parallels for the shape are late. They include a wine strainer of Orientalizing date from Knossos (Coldstream 1973, 49, fig. 4:L5, pl. 18), and a lopas or cooking dish belonging to the third quarter of the third century from Knossos (Eiring 2001, 132, fig. 3.20:g). A fragment of a fine, round horizontal handle was also found, possibly from a skyphos. The rest of the pottery consisted of coarse body sherds and was discarded in 1984.

Chronology

There are no finds that would allow us to date this grave with certainty. It may represent a dump from Grave 5, as material from that grave was scattered as far as Trench V 2500 to the south. If there is an association with Grave 5, then this material should