Bramiana

Salvaging Information from a Destroyed Minoan Settlement in Southeast Crete

Edited by
Vili Apostolakou, Philip P. Betancourt, and Thomas M. Brogan

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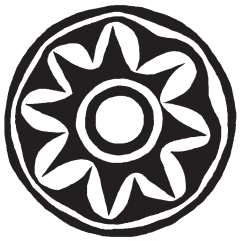

PREHISTORY MONOGRAPHS 66

Bramiana

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Vili Apostolakou, Philip P. Betancourt, and Thomas M. Brogan

with contributions by

Vili Apostolakou, Philip P. Betancourt, Lily Bonga, Thomas M. Brogan, Konstantinos Chalikias, Heidi M.C. Dierckx, Amie S. Gluckman, Florence S.C. Hsu, Eleni Nodarou, Sydney R. Sarasin, and Antonia Stamos

Published by
INSTAP Academic Press
Philadelphia, Pennsylvania
2021

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: Apostolakou, Vili, 1957- editor. | Betancourt, Philip P., 1936-editor. | Brogan, Thomas M., editor.
Title: Bramiana : salvaging information from a destroyed Minoan settlement in southeast Crete / edited by Vili Apostolakou, Philip P. Betancourt, and Thomas M. Brogan.
Description: Philadelphia, Pennsylvania : INSTAP Academic Press, 2021. | Series: Prehistory monographs; 66 | Includes bibliographical references and index. | Summary: "The Minoan site at Bramiana in southeastern Crete provides evidence for a Bronze Age economy based on trade, agriculture, and craftwork. This publication uses a new system of organizing the pottery by petrography-sorting it by materials and workshop practices-revealing a trade network of cooking pots and other clay vessels and their contents"-- Provided by publisher.
Identifiers: LCCN 2021012219 (print) | LCCN 2021012220 (ebook) | ISBN 9781931534307 (hardcover) | ISBN 9781623034351 (adobe pdf)
Subjects: LCSH: Bramiana Site (Greece) | Crete (Greece)--Antiquities. | Pottery, Minoan. | Bronze age--Greece--Crete. | Excavations (Archaeology)--Greece--Crete.
Classification: LCC DF221.C8 B628 2021 (print) | LCC DF221.C8 (ebook) | DDC 939/.18--dc23
LC record available at https://lccn.loc.gov/2021012219
LC ebook record available at https://lccn.loc.gov/2021012220

Front and back cover: satellite views of Bramiana and the reservoir, Google Earth, accessed February 5, 2021, https://earth.google.com/web/@35.04070266,25.7060754,129.4740342a,2827.19800728d,35y,0h,0t,0r.

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Philadelphia, Pennsylvania
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Preface

In 2010, Doug Faulmann and his wife Kathy Hall took their little daughter Rosie to a popular picnic spot near the artificial lake that furnishes water for the city of Ierapetra on the southeast coast of Crete. Doug, the chief artist at the INSTAP SCEC in Pacheia Ammos, and Kathy, the senior conservator at the facility, were interested in observing the birds that stop at the lake during their migrations. Their daughter Rosie was six years old at the time, and they looked forward to a pleasant outing.

After a short time, Rosie came up to her father with something in her hand and said, "Look, Daddy, Minoan pottery."

"No, no," her father replied. "We don't have Minoan pottery out here."

"Yes," Rosie insisted. "It's Minoan pottery."

Doug looked at what she had and realized that Rosie was right. Upon closer examination, fragments of other Bronze Age ceramics could be seen littering the ground. Rosie had discovered a previously unrecorded Minoan site. The discovery was reported to the Ephorate of Antiquities of Lasithi (formerly the 24th Ephorate of Prehistoric and Classical Antiquities), and the director at the time, Vili Apostolakou, investigated and confirmed the presence of the ancient site. Because this area was such a popular picnic spot for the residents of Ierapetra and its vicinity, three small rescue trenches were subsequently excavated where the soil was deep enough to yield ancient remains.

What was discovered was an ancient settlement from the second millennium B.C. that had been completely destroyed by bulldozing at some point prior to 1980. All the architecture had been displaced in order to create level fields for growing

olives. Only broken pottery and a few other artifacts remained to tell the story of a small Minoan settlement that existed here for over a thousand years.

Bramiana is important because very little is known about the history of this part of Bronze Age Crete. Few excavated settlements from the Middle or Late Bronze Age are known either from Ierapetra or from the coastal region immediately east and west of this large modern city. Bramiana provides an opportunity to learn a substantial amount about the Bronze Age history of this little-known region.

A modern approach to the study of the ceramics at Bramiana leads to significant new conclusions about the distribution patterns of this commodity at the beginning of the Late Bronze Age. This approach organizes the ceramics using fabrics that are defined by petrography. Consequently, the chapter on the trade in pottery (documenting, for example, several different sources for cooking pots and two origins for ritual vessels, both on the north coast) has provided enough new information on pottery distribution to make earlier treatments of the subject based only on style probably in need of future work.

Earlier articles and reports that discuss the site include the following: Betancourt et al. 2016; Apostolakou et al. 2019; Oddo 2019a, 2019b.

Definitions and Nomenclature for the Pottery

Pottery forms the bulk of the material recovered from Bramiana. Its fabrics are characterized by petrography (see this vol., Ch. 2), with the word fabric defined as the final state of the material used for a vessel or another ceramic object. The fabric incorporates characteristics derived from the original raw materials, the processing by the potters, the changes made during firing, and the post-burial alterations.

The nomenclature for fabric classes follows Betancourt (2008). Fabrics that have been defined by petrography in print are capitalized (e.g., Cretan South Coast Fabric and Mirabello Fabric). Fabric classes that have not been closely defined are not capitalized (e.g., metamorphic fabrics). Named fabrics are defined by characteristic aplastic constituents, with subclasses identified by workshop practices (such as variations in clay mixes, differential levigation methods, or more than a single firing practice). The nomenclature for the shapes mostly follows Betancourt (1985). Ornamental classes are called Wares (capitalized) only if both the fabric has been defined petrographically and the surface treatment has been defined in detail (e.g., Vasiliki Ware, whose style is defined by Betancourt [1979], with subclasses made of Mirabello Fabric; and Kamares Ware, defined by Walberg [1976, 1978] as elaborate white or polychrome decoration on a dark background on vessels made of Cretan South Coast Fabric). If either the style or the fabric has not been closely defined, the class is called a style instead of a ware (i.e., the Middle Minoan Dark-on-Light Style [Betancourt 1977], which occurs at Bramiana in several different fabrics). The word style is capitalized only when it is part of a named class.

Acknowledgments

The excavations at Bramiana were directed by Vili Apostolakou on behalf of the Ephorate of Antiquities of Lasithi (formerly the 24th Ephorate for Prehistoric and Classical Antiquities) in 2011 and 2012. Financial support was provided by the Greek Ministry of Culture, the Institute for Aegean Prehistory (INSTAP) and its supporters, and private donors. Some of the study was supported by grants from Temple University in Philadelphia, Pennsylvania. Study was accomplished at the INSTAP Study Center for East Crete (SCEC) in Pacheia Ammos, Crete, at the Temple University Tyler School of Art Digital Laboratory in Philadelphia, Pennsylvania, and at the INSTAP Academic Press offices in Philadelphia, Pennsylvania. Measurements for mapping were made by Antonia Stamos and Allyson McCreery using a Topcon Electronic Distance Measuring Instrument (EDM). Additional map preparation was accomplished by Andrew Koh, Thomas M. Brogan, Philip P. Betancourt, and Diane Evitts. Trench supervisors were Konstantinos Chalikias, Lily Bonga, Florence S.C. Hsu, and Melissa Eaby.

Technical assistance for the study of the pottery and other items was provided by the INSTAP SCEC in Pacheia Ammos Crete (Thomas M. Brogan, director, Eleanor Huffman, business administrator, Philip P. Betancourt, executive director). Conservation was done by Kathy Hall, senior conservator, and Matina Tzari, assistant conservator. Photomicrographs of the petrographic thin sections were taken by Eleni Nodarou. Photographs of objects were taken by Chronis Papanikolopoulos, chief photographer. Site photographs were taken by Philip Betancourt and Melissa Eaby. The stone tools were studied by Heidi M.C. Dierckx. The database and catalog were prepared by Mary A. Betancourt†, registrar, and assistant

registrars Florence S.C. Hsu, Marie Nicole Pareja, Amie Gluckman, Diane Evitts, and Sydney R. Sarasin. Artists were Doug Faulmann, Lily Bonga, Konstantinos Chalikias, Philip P. Betancourt, and the authors of the individual chapters.

List of Abbreviations

a	angular
BR	Bramiana pottery catalog number
BRM	Bramiana petrography sample number
c:f:v	coarse:fine:void ratio
cm	centimeter(s)
d.	diameter
dim.	dimension
EDM	electronic distance measuring instrument
EM	Early Minoan
FN	Final Neolithic
gr.	gram(s)
h.	height
ha	hectare(s)
INSTAP SCEC	Institute for Aegean Prehistory Study Center for East Crete
kg	kilogram(s)
km	kilometer(s)
l.d.	long dimension
LM	Late Minoan
m	meter(s)
m^2	square meters
m asl	meters above sea level
max.	maximum
MM	Middle Minoan
µm	micrometers
PPL	plane polarized light
pres.	preserved
r	rounded
rest.	restored
sa	subangular
sr	subrounded
tcf	textural concentration features
th.	thickness
w.	width
wt.	weight
XP	cross-polarized light

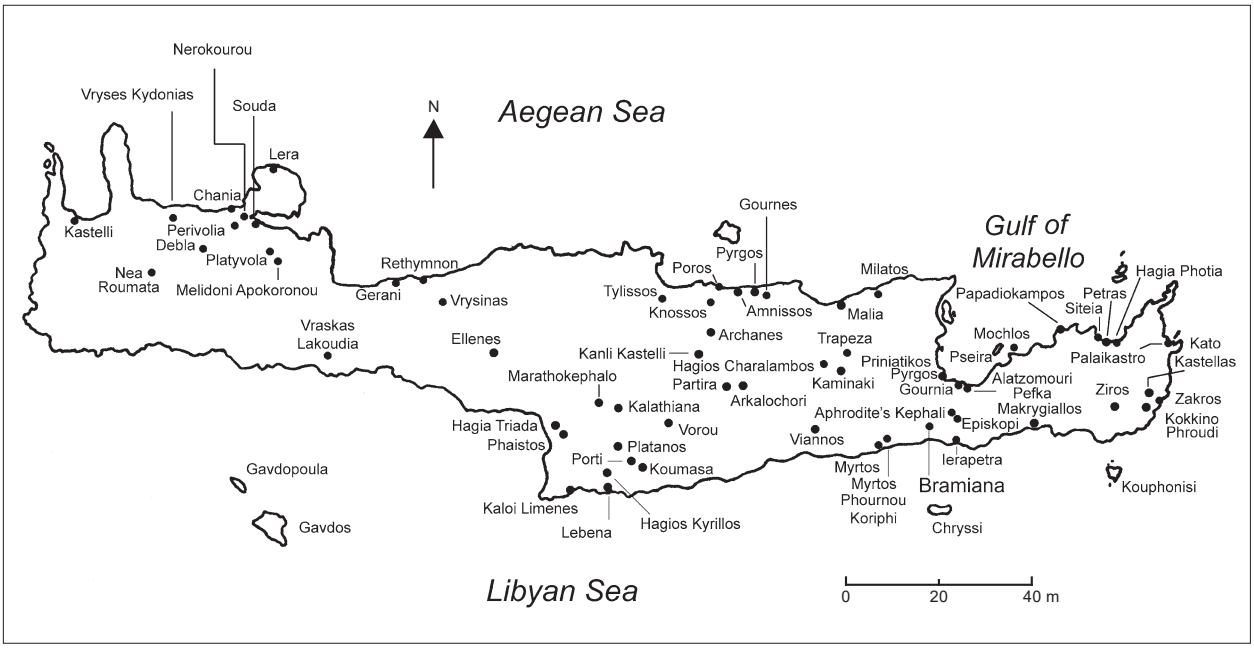

Illustration 1. Map of Crete showing some sites mentioned in the text. Drawing P. Betancourt.

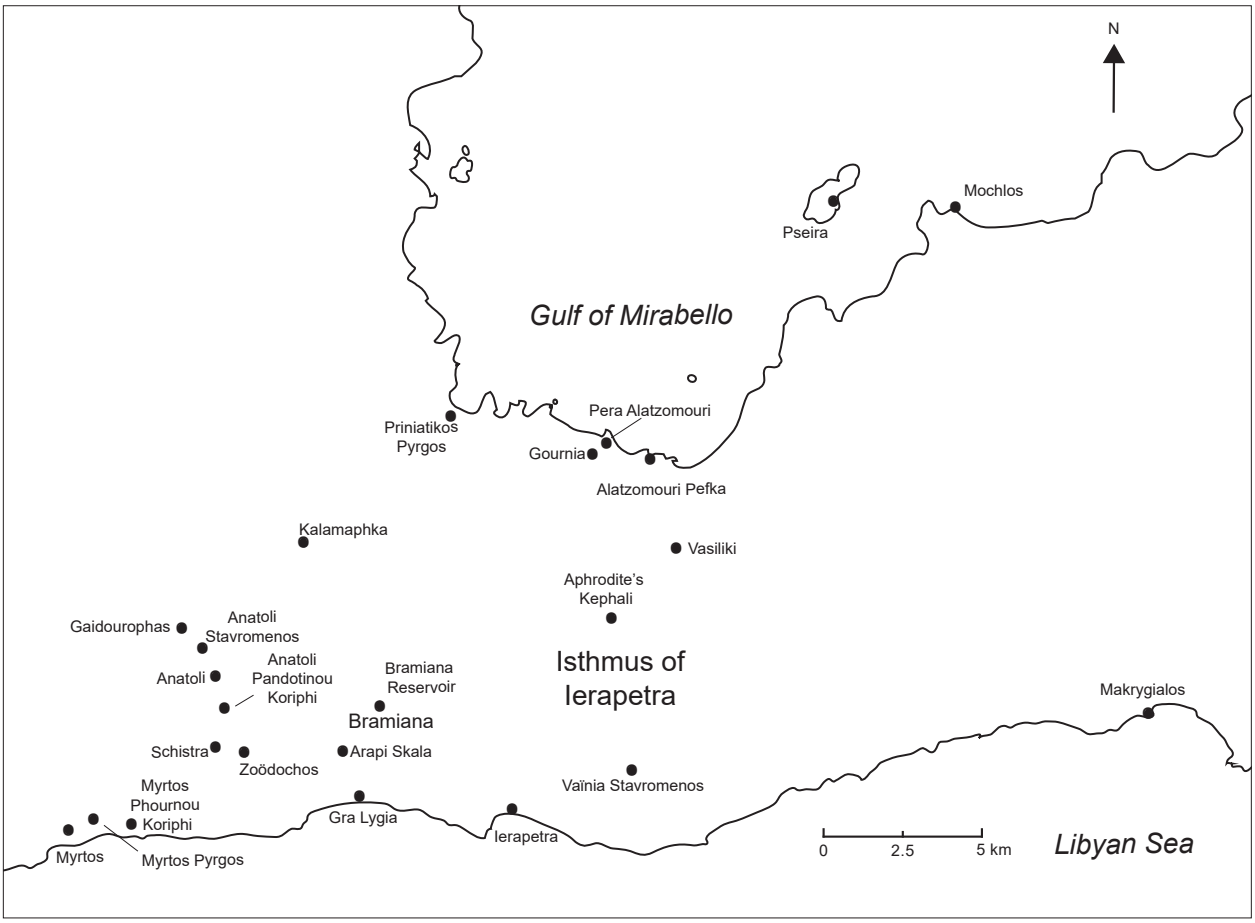

Illustration 2. Map of the isthmus of Ierapetra and the neighboring regions with some sites mentioned in the text. Drawing P. Betancourt.

1

Introduction and Methodology

by

Vili Apostolakou, Philip P. Betancourt, and Thomas M. Brogan

Bramiana, a location 4 km west of the modern city of Ierapetra in Southeast Crete, is a small region near the Bramiana Reservoir (Ills. 1, 2). The artificial lake provides water to the city of Ierapetra and surrounding farms and villages. Two archaeological sites are known from this region. The Bramiana cemetery, which is south of the reservoir, dates to the Subminoan and Protogeometric periods (Tsipopoulou 2005, 72; for additional bibliography, see below). The second archaeological location is the settlement that is discussed in this volume. It occupies a small peninsula that juts out into the reservoir just north of the eastern end of the large earth and stone dam that holds back the water (Ills. 3, 4). The earliest pottery is from Early Minoan (EM) I to EM II, but the surviving ceramics indicate that the community flourished mainly between Middle Minoan (MM) II and the end of Late Minoan (LM) IA or the beginning of LM IB.

The Bramiana Reservoir is the dominant topographic feature of a valley that runs south from the hills that dominate the Cretan landscape southeast of the Lasithi Plain. The valley, which extends all the way to more level land near the southern coast, was a natural passage connecting the coastline of the Libyan Sea with the interior of Crete in all periods. At the coast the valley ends near the modern village of Gra Lygia. The fields and low hills near the reservoir are fertile, and they support many crops, especially olives and greenhouse vegetables.

The Bramiana Reservoir is a modern artificial lake created by the building of a massive stone and earth dam across the valley to store water for this part of Crete (Ills. 5, 6). Ierapetra's government began a modernization of its water management system in 1955 (Kokkinidis 2015, 53–54). The lake for the Bramiana Reservoir was completed in 1986, and it covers 105 hectares of land with a capacity of 15,000,000 cubic meters of water. The water management system is highly successful, and it provides for the needs of agriculture as well as for other uses (Ill. 7).

The present topography for the archaeological site of Bramiana is very different from its situation

Illustration 3. The dam across the southern end of the Bramiana Reservoir, looking south from the archaeological site. Photo P. Betancourt.

Illustration 4. Satellite image of the region surrounding the Bramiana Reservoir and south to the coast. The white rectangles are greenhouses. Photo Google Earth, accessed July 7, 2021, https://earth.google.com/web/@35.03217459,25.69136163,131.16853876a,8636.97627711d,35y,-0h,0t,0r.