



Universiteit  
Leiden  
The Netherlands

## **The Early and Middle Pleistocene archaeological record of Greece : current status and future prospects**

Tourloukis, V.

### **Citation**

Tourloukis, V. (2010, November 17). *The Early and Middle Pleistocene archaeological record of Greece : current status and future prospects*. LUP Dissertations. Retrieved from <https://hdl.handle.net/1887/16150>

Version: Corrected Publisher's Version

License: [Licence agreement concerning inclusion of doctoral thesis in the Institutional Repository of the University of Leiden](#)

Downloaded from: <https://hdl.handle.net/1887/16150>

**Note:** To cite this publication please use the final published version (if applicable).

# The Early and Middle Pleistocene Archaeological Record of Greece

current status and future prospects



Leiden University Press

Archaeological Studies Leiden University  
is published by Leiden University Press, the Netherlands

Series editors: C.C. Bakels and H. Kamermans

Cover design: Joanne Porck

Lay out: JAPES, Amsterdam

Illustrations: Joanne Porck, Evangelos Tourloukis

ISBN 978 90 8728 106 9

e-ISBN 978 94 0060 026 3

NUR 682

© Evangelos Tourloukis / Leiden University Press, 2010

All rights reserved. Without limiting the rights under copyright reserved above, no part of this book may be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the written permission of both the copyright owner and the author of the book.

ARCHAEOLOGICAL STUDIES LEIDEN UNIVERSITY 23

# The Early and Middle Pleistocene Archaeological Record of Greece

Current Status and Future Prospects

Proefschrift

ter verkrijging van  
de graad van Doctor aan de Universiteit Leiden,  
op gezag van Rector Magnificus prof. mr. P.F. van der Heijden,  
volgens besluit van het College voor Promoties  
te verdedigen op woensdag 17 november 2010  
klokke 13.45 uur

door

Evangelos Tourloukis

geboren te Athene,  
in 1976

## Promotiecommissie

Promotor: prof. dr. W. Roebroeks

Overige Leden: dr. P. Karkanas  
dr. E. Panagopoulou  
prof. dr. C. Runnels  
prof. dr. T. van Kolfschoten  
prof. dr. J. Bintliff  
dr. H. Kamermans

This research was made possible with a grant from State Scholarships Foundation (Greece).

στον πατέρα μου

Cos'è gementi schiavi  
questo remar remare?  
Meglio morir tra i flutti  
sul biancheggiar del mare

Remiam finché la nave  
si schianti sui frangenti  
alte le rossonere  
fra il sibilare dei venti!

(B. Pedrini, Il galeone)



# Contents

<b>1</b>	<b>Introduction</b>	11
1.1	Key research questions	11
1.2	Scope, objectives and structure of the book	12
<b>2</b>	<b>Lower Palaeolithic archaeology and the peopling of Europe</b>	15
2.1	The Lower Palaeolithic period: an introduction	15
2.2	Early dispersals and the first occupation of Europe	19
<b>3</b>	<b>Lower Palaeolithic records of the circum-Mediterranean area</b>	23
3.1	Introduction	23
3.2	The Italian Peninsula	24
3.3	The Iberian Peninsula	28
3.4	North Africa	32
3.5	The Levant	35
3.6	Balkans and Turkey	38
3.7	Conclusions and discussion	42
<b>4</b>	<b>The Lower Palaeolithic record of Greece</b>	45
4.1	Introduction (with a short reference to the Middle Palaeolithic)	45
4.2	The palaeoanthropological record	50
4.2.1	Petalona	50
4.2.2	Apidima	52
4.3	North Greece	53
4.3.1	Thrace	53
4.3.2	Macedonia	54
4.4	Ionian Islands	56
4.4.1	Nea Skala, Kephallonia	57
4.4.2	Korissia, Kerkyra	58
4.5	Epirus	58
4.5.1	Introduction	58
4.5.2	Geology, geomorphology and geoarchaeology of Epirus	59
4.5.3	Previous research and interpretations	62
4.5.4	Revisiting Kokkinopilos: fieldwork results	67
4.5.5	Conclusions and discussion	76
4.5.6	Alonaki	82



4.6	Thessaly	87
4.6.1	Introduction	87
4.6.2	Geology and geomorphology of Thessaly	88
4.6.3	Previous research and interpretations	89
4.6.4	Revisiting Thessaly: fieldwork results	93
4.6.5	Conclusions and discussion	106
4.7	Peloponnesus	109
4.7.1	Peiros river valley	109
4.7.2	Megalopolis basin	110
<b>5</b>	<b>Pleistocene deposits and the absence of stratified Lower Palaeolithic evidence: two case-studies</b>	<b>115</b>
5.1	Introduction	115
5.2	Aliakmon Survey Project	115
5.3	Zakynthos Archaeology Project	120
<b>6</b>	<b>Quaternary landscape evolution and the preservation of Pleistocene sediments</b>	<b>127</b>
6.1	Introduction	127
6.2	Climatic controls	128
6.2.1	The climate of Greece	128
6.2.2	Climate, weathering and surface processes	130
6.2.3	Quaternary climate changes in Greece	132
6.2.4	Geomorphic responses to Quaternary climate changes, fluvial erosion and slope processes	142
6.2.5	Discussion	146
6.3	Tectonic controls	147
6.3.1	Introduction	147
6.3.2	Overview of the main tectonic phases	148
6.3.3	Geodynamic interpretation and geomorphological consequences	151
6.3.4	Discussion	159
6.4	Sea-level changes	160
6.4.1	Introduction	160
6.4.2	Sea-level changes: contributing factors and complicating perplexities	160
6.4.3	Quaternary sea-levels and palaeogeography of Greece	162
6.4.4	Prospects of underwater and terrestrial investigations of the Aegean Lower Palaeolithic record	168
6.5	Surface processes	173
6.5.1	Introduction	173
6.5.2	Erosion measurement and modeling	174
6.5.3	Vegetation	176
6.5.4	Lithology	176
6.5.5	Soils	177
6.5.6	Land use	178
6.5.7	Topography	180
6.5.8	Geomorphological opportunities for the preservation of Lower Palaeolithic material: a working hypothesis for the Greek landscapes and the role of topography	181
6.5.9	Discussion and conclusions	189
6.6	Conclusions	191

## CONTENTS

<b>7</b>	<b>Synthesis</b>	197
7.1	Introduction	197
7.2	Identifying the current status of the Greek Lower Palaeolithic	197
7.3	Explaining the current status of the Greek Lower Palaeolithic	201
7.4	Prospecting the future of Lower Palaeolithic investigations in Greece	207
7.5	Suggested research subjects for future examinations	211
	<b>Epilogue</b>	215
	<b>References</b>	219
	<b>English Summary</b>	249
	<b>Dutch Summary</b>	251
	<b>List of Figures</b>	253
	<b>List of Tables and Appendices</b>	255
	<b>Abbreviations and Notes</b>	257
	<b>Acknowledgements</b>	259
	<b>Curriculum Vitae</b>	261

