

Explorations in Salt Archaeology in the Carpathian Zone

Anthony Harding and Valerii Kavruk

with contributions by

**Krzysztof Bukowski, Andrea Chiricescu, Richard Brunning, Adela Kovács,
Dan Buzea, Marion Uckelmann, Dan Ștefan, Eszter Bánffy, Tomasz Ważny,
Ionel Popa, Anca Semeniuc, Gelu Țiculeanu, Rowena Gale,
Nyssa Mildwaters and Steven J. Allen**



BUDAPEST 2013

This volume is published with financial support from the Leverhulme Trust within the research programme *Tracing Networks: Craft Traditions in the Ancient Mediterranean and Beyond* and the National Cultural Fund of Hungary



Front Cover

The salt stream at Săsarm, Bistrița-Năsăud county, Romania,
seen from the north and showing the brine well (photo by the author)

Back Cover

Wood installations uncovered in excavation at Băile Figa,
Bistrița-Năsăud county, Romania (photo by the author)

ISBN 978-963-9911-44-4
HU-ISSN 1215-9239

© The Authors and Archaeolingua Foundation

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopy, recording or any other information storage and retrieval system, without requesting prior permission in writing from the publisher.

2013

ARCHAEOLOGUA ALAPÍTVÁNY
H-1250 Budapest, Úri u. 49

Desktop editing and layout by Rita Kovács

Printed by Prime Rate Kft.

Contents

List of Figures	7
List of Plates	15
List of Tables	17
Acknowledgements	19
ANTHONY HARDING – VALERII KAVRUK	
<i>Chapter 1</i>	
Introduction	21
KRZYSZTOF BUKOWSKI	
<i>Chapter 2</i>	
Salt sources and salt springs in the Carpathian zone	27
ANDREA CHIRICESCU	
<i>Chapter 3</i>	
Traditional salt exploitation in Transylvania	35
ANTHONY HARDING – VALERII KAVRUK	
including contributions by Richard Brunning, Adela Kovács, Dan Ștefan and Marion Uckelmann	
<i>Chapter 4</i>	
Transylvania	41
ANTHONY HARDING – VALERII KAVRUK	
<i>Chapter 5</i>	
Ukraine	155
ANTHONY HARDING – VALERII KAVRUK	
<i>Chapter 6</i>	
Slovakia and Poland	175
DAN BUZEA	
<i>Chapter 7</i>	
The exploitation of rock salt using wooden troughs. Experiments conducted at Băile Figa in 2008–2010	185
ANTHONY HARDING – VALERII KAVRUK	
<i>Chapter 8</i>	
Prehistoric technologies of salt production in the Carpathian zone	193

ESZTER BÁNFFY	
<i>Chapter 9</i>	
Tracing 6 th –5 th millennium BC salt exploitation in the Carpathian Basin	201
ANTHONY HARDING – VALERII KAVRUK	
<i>Chapter 10</i>	
Prehistoric production and exchange of salt in the Carpathian-Danube Region	209
ANTHONY HARDING – VALERII KAVRUK	
<i>Chapter 11</i>	
Conclusions and prospects	219
ADELA KOVÁCS	
<i>Appendix 1</i>	
Catalogue of wood and stone	225
GELU ȚICULEANU	
<i>Appendix 2a</i>	
Conservation of archaeological wood from Băile Figa	259
NYSSA MILDWATERS – STEVEN J. ALLEN	
<i>Appendix 2b</i>	
Report on the conservation of eleven small finds, April 2010	265
TOMASZ WAŻNY	
<i>Appendix 3</i>	
Dendrochronological investigations at Băile Figa, Romania, 2006–7	269
IONEL POPA – ANCA SEMENIUC	
<i>Appendix 4a</i>	
Wood species identified at Băile Figa, Beclean, Bistrița-Năsăud county	273
ROWENA GALE	
<i>Appendix 4b</i>	
Identification of timber samples	277
Bibliography	279
Plates	291
List of Authors	331