

Preface (COLIN HASELGROVE)	9
Foreword and Acknowledgements	11
<i>Résumé</i>	13
Introduction (PETRA GOLÁŇOVÁ)	15

PART I – EMPTY SPACES IN CONTEXT

1 Empty spaces in enclosed (and unenclosed) sites before and during the Iron Age (PETRA GOLÁŇOVÁ)	21
1.1 Space organisation of enclosed sites before the Iron Age	21
1.2 Space organisation of settlement sites during the Iron Age	22
<i>Small enclosed site</i>	26
<i>Unfortified agglomerations and other unenclosed sites</i>	30
<i>Oppida</i>	35
2 The presumed functions of empty spaces on Late Iron Age sites and possibilities to prove them (PETRA GOLÁŇOVÁ)	43
2.1 Subsistence	43
2.2 Public space (squares and gathering places)	46

PART II – BIBRACTE: A CASE STUDY

3 Bibracte – the state of research (PETRA GOLÁŇOVÁ)	51
3.1 Mont Beuvray/Bibracte and its landscape	51
3.2 Past and present research at Bibracte	59
<i>Excavations</i>	59
<i>Geophysics</i>	66
<i>Other approaches</i>	70
4 Urbanism at Bibracte in time and space – the state of play (PETRA GOLÁŇOVÁ)	79
4.1 Chronological framework and development of the oppidum	79
4.2 Urbanism and space organisation in different parts of the oppidum	83

PART III – EXAMINING ‘URBAN LANDSCAPE’ AND EMPTY SPACES AT BIBRACTE

5 Assessing the urbanism: geophysical prospection 2011–2021

(PETER MILO, PETRA GOLÁŇOVÁ, TOMÁŠ TENCER, MICHAL VÁGNER)	121
5.1 Methods	121
5.2 Results	132
<i>Côme Chaudron</i>	132
<i>Champlain</i>	146
<i>Pâturage du Couvent</i>	147
<i>Porrey and its slopes</i>	164
<i>Parc aux Chevaux and Theurot de la Roche</i>	172
<i>Chaume</i>	212
<i>Terrasse and the adjacent slopes</i>	231
<i>Vergers</i>	237
<i>Grandes Portes</i>	240
5.3 Conclusion	243
<i>Potential and limitation of geophysical survey at Bibracte</i>	247

6 Analysing LiDAR data: a short comment

(JANA MAZÁČKOVÁ)	253
------------------------	-----

PART IV – EXCAVATING AND ANALYSING THE EMPTY SPACES IN BIBRACTE: TEST-PITS AND TRENCHES 2019–2020

7 Aims of the excavation and sampling (PETRA GOLÁŇOVÁ)	259
8 Fieldwork, sampling strategy and terrain observations (PETRA GOLÁŇOVÁ)	261
9 Artefacts in contexts (PETRA GOLÁŇOVÁ)	277
10 Quantification of the finds and deposition analysis (PETRA GOLÁŇOVÁ, JAN KYSELA)	287
11 Radiocarbon dating (PETER BARTA – MÁRIA HAJNALOVÁ)	293
12 OSL dating of natural and anthropogenic deposits (PIOTR MOSKA)	301
13 Geostatistical evaluation of the chemical dataset from Terrasse (JAN PETŘÍK, LUBOMÍR PROKEŠ)	303
14 Geoarchaeology of empty spaces: methodological approaches and interpretations (LENKA LISÁ, SAHAR POLEDNÍK MOHAMMADI, HANA GRISON, JAN ROHOVEC, PAVEL LISÝ, ALEŠ BAJER)	309
14.1 Introduction	309
14.2 Methodology	309
14.3 Results	311
<i>The sedimentological characterisation of empty spaces</i>	311
<i>Micromorphology</i>	312
<i>Magnetic proxies</i>	315
<i>Geochemical composition</i>	316
14.4 Interpretation	317
14.5 Conclusion	318

15 Plant remains (MÁRIA HAJNALOVÁ – ROMANA KOČÁROVÁ)	319
15.1 Introduction	319
15.2 Seeds	325
<i>Summary for seeds</i>	331
15.3 Wood charcoal	336
<i>Summary for charcoal</i>	340
16 Palynology (MÁRIA HAJNALOVÁ – EVA JAMRICHOVÁ – LIBOR PETR)	349
16.1 Introduction	349
16.2 Methods	349
16.3 Results	350
16.4 Discussion and summary	353
<i>Pollen concentration - buried surfaces</i>	353
<i>Multivariate statistical analyses and data patterning</i>	354
<i>Vegetation during the lifetime of the oppidum</i>	355
<i>Vegetation and its changes in other periods</i>	359
17 Phytoliths (ÁKOS PETŐ)	363
17.1 Introduction	363
17.2 Materials and methods	363
17.3 Results	365
17.4 Discussion	371
18 Diatoms (MARKÉTA FRÁNKOVÁ)	379
19 Palaeoparasites (PATRIK G. FLAMMER)	383
 PART V – OPPIDUM AS AN URBAN LANDSCAPE?	
20 Combined evidence (MÁRIA HAJNALOVÁ, PETRA GOLÁŇOVÁ)	387
20.1 Issues and problems	387
20.2 Chronological evaluation	388
21 Not only Bibracte: a diachronic view of the site on Mont Beuvray (PETRA GOLÁŇOVÁ)	397
22 Bibracte as an urban landscape (PETRA GOLÁŇOVÁ)	403
22.1 Empty spaces at Bibracte	405
22.2 Urban landscape: remarks on urban life and development	413
 Bibliography	 419
List of Digital Appendices	463