

# BIBLIOTECA DE CERCETARE

**Descrierea CIP a Bibliotecii Naționale a României**  
**Proceedings of the 29th Conference of the European Society for**  
**Astronomy in Culture (SEAC) Timisoara 2022 / coord. Marc Frîncu**  
- Timișoara : Editura Universității de Vest, 2024  
Conține bibliografie

ISBN 978-630-327-107-1

I. Frîncu, Marc Eduard (coord.)

52

Editor: Marilena Tudor  
Tehnoredactare și copertă: Liliana Olaru

© 2024 Editura Universității de Vest din Timișoara, pentru prezenta  
ediție

**Editura Universității de Vest din Timișoara**  
Calea Bogdăneștilor nr. 32A  
300389, Timișoara  
E-mail: editura@e-uvv.ro  
Tel.: +40 - 256 592 681

Marc Frîncu  
(coordinator)

Proceedings of the 29<sup>th</sup> Conference of  
the European Society  
for Astronomy in Culture (SEAC)  
Timisoara 2022



Editura Universității de Vest din Timișoara,  
2024



# CONTENTS

## ARCHAEOASTRONOMY

<i>FOREWORD</i> .....	11
<i>A NOTE ON THE BURTON AGNES CHALK DRUM AND THE 'BUTTERFLY' STONE AT THE NESS OF BRODGAR – MARC THUILLARD</i> .....	
Introduction .....	15
Geometric analysis of the Burton Agnes drum .....	17
Tentative astronomical interpretation of the drum decoration?.....	20
Tentative geometric interpretation of motifs at the Ness of Brodgar .....	23
Acknowledgement.....	26
Biography .....	27
<i>ASTRONOMY IN THE SACRED PRECINCT OF SALA DE MOROS (ARGAMASILLA DE CALATRAVA, SPAIN) – ANDREA RODRÍGUEZ-ANTÓN, JOSÉ LUIS FUENTES SÁNCHEZ, LUIS BENÍTEZ DE LUGO ENRICH</i> .....	
Introduction .....	29
Methodology and data sample.....	32
Orientation of Sala de Moros .....	33
Discussion .....	34
Conclusions .....	35
References .....	36
Biography .....	37
<i>SIGNS FROM ABOVE – RESEARCH ON THE OBSERVATIONAL VALUE OF SOLAR SYMBOLS AND ECLIPSE RECORDS FROM THE ANCIENT NEAR EAST OR CYPRUS – ANNA PAULE</i> .....	
Introduction .....	39
Geographical and archaeological setting.....	41
Near Eastern and Cypriot solar iconography .....	43
<i>The ancient Egyptian winged sun disk</i> .....	43
<i>The ancient Near Eastern winged sun disk and related symbols</i> .....	44
<i>The solar symbols of ancient Cyprus</i> .....	46
Approaches to ancient solar symbols: research by Edward Walter Maunder .....	47

In search of ancient observational methods .....	50
Models and approaches applied to the retrospective calculation of ancient solar eclipses .....	52
Conclusions .....	58
References .....	58
Biography .....	64

*TEHUALCO MEXICO: AN EMBLEMATIC PRE-HISPANIC CASE FOR THE STUDY OF QUARTER DAYS OF THE YEAR AND THE COMPUTING YEAR OF 364 DAYS – HANS MARTZ DE LA VEGA, MIGUEL PÉREZ NEGRETE .....*

Introduction .....	65
The calendrical system and two models of 364 days .....	69
<i>Our first 364-day model</i> .....	70
<i>Our second 364-day model</i> .....	70
In search of new data, identification of a context.....	71
Methodology .....	72
Results .....	74
Discussion and proposal of our third model.....	79
Conclusions .....	81
Acknowledgements .....	82
References .....	83
Biography .....	85

*ORIENTATIONS OF THE EARLY CHRISTIAN GRAVES IN FINLAND – MARIANNA P. RIDDERSTAD .....*

Introduction .....	87
Methodology .....	90
Results .....	93
Discussion .....	100
Conclusions .....	103
References .....	104
Biography .....	106

*A NOTE ON THE ORIENTATION OF BYZANTINE CHURCHES IN SARDINIA, PLUS A COMPARISON AMONG ONLINE HORIZON TOOLS – THEMIS G. DALLAS.....*

Introduction .....	107
Methodology .....	108
Results .....	109
Discussion of specific cases .....	112
Conclusion.....	114
Acknowledgements .....	114
Appendix: Comparison of three online tools for measuring horizon altitude.....	115
References .....	119
Biography .....	122

---

<b>A CALENDAR OBSERVATORY IN TIBET – GEORG ZOTTI, GUNTRAM HAZOD, MARTIN GAMON, HUBERT FEIGLSTORFER .....</b>	<b>123</b>
Introduction .....	123
Field work in Tibet .....	124
Modelling the Observatory.....	128
<i>The visual impression</i> .....	131
Conclusion.....	132
Acknowledgements .....	133
References .....	134
Biography .....	135

<b>ORIENTATIONS OF ROMAN CENTURIATIONS IN ITALY. PRELIMINARY RESULTS – ANDREA RODRÍGUEZ-ANTÓN, GIULIO MAGLI, A. CÉSAR GONZÁLEZ-GARCÍA .....</b>	<b>137</b>
Introduction .....	137
Ancient writings and previous works.....	139
Sample and methodology .....	139
Orientation of centuriations.....	141
Discussion and conclusions.....	143
Acknowledgments.....	145
Bibliography .....	145
Biography .....	148

## **ETHNOASTRONOMY**

<b>WHAT ARE WE TALKING ABOUT WHEN WE SAY SYMBOL IN CULTURAL ASTRONOMY? CRITICAL REFLECTIONS AND A PROPOSAL FROM ETHNOASTRONOMY – ALEJANDRO MARTÍN LÓPEZ.....</b>	<b>151</b>
Introduction .....	152
Saussure, Peirce and the uses in linguistics and semiotics.....	152
Symbol in the classic and medieval tradition.....	153
Symbol in the history of religions .....	153
Symbol and double meaning: Paul Ricoeur .....	154
Symbols in symbolic anthropology.....	155
The social construction of symbols.....	156
Applying symbolic analysis to ethnoastronomy .....	158
The Moqoit People .....	160
<i>Moqoit</i> experience of the cosmos .....	160
<i>Moqoit</i> mythical tales.....	162
Final words.....	165
Bibliography .....	166
Biography .....	168

<i>PAREIDOLIA AND CULTURAL DIFFUSION: A QUANTITATIVE AND QUALITATIVE STUDY ON THE ICONOGRAPHIC RECOGNIZABILITY OF THE CONSTELLATIONS</i> – ALESSANDRO BERIO .....	169
Introduction .....	169
Literature Review .....	170
Methodology .....	172
Discussion .....	174
Results .....	175
<i>Jesus in a Burned Tortilla</i> .....	177
<i>The Spread of the Constellations</i> .....	179
<i>Recognizability and Transmissability</i> .....	181
<i>A Scorpion is always a Scorpion</i> .....	183
Conclusion .....	184
References .....	184
Biography .....	186
Appendix: Survey .....	186
<i>The Sky Through Your Eyes</i> .....	186
<i>About You</i> .....	187
<i>Constellations Through Your Eyes</i> .....	188
<i>Recognizing the Constellations</i> .....	193
<i>Your Beliefs</i> .....	201
<i>ON THE ORIENTATION OF ORTHODOX CHURCHES</i> – DIMITER KOLEV, VESSELINA KOLEVA .....	203
Introduction .....	203
Methodology .....	205
Results and comments by group .....	206
1. <i>BULGARIA</i> .....	208
2. <i>ARMENIA</i> .....	210
3. <i>GEORGIA</i> .....	211
4. <i>GREECE</i> .....	211
5. <i>TURKEY</i> .....	212
6. <i>ROMANIA</i> .....	212
7. <i>UKRAINE</i> .....	213
8. <i>RUSSIA</i> .....	213
Conclusions .....	217
Acknowledgments .....	218
References .....	218
Biography .....	220



---

*THE SKY AS A SEMIOTIC PHENOMENON: SEMIOTIC PERSPECTIVES ON  
STUDYING SKYSCAPES – STANISLAW IWANISZEWSKI* ..... 221

    Introduction ..... 221

    Heavenly and environmental signs..... 224

    Umwelt and Lifeworld, taskscapes and skylscapes..... 224

    The sky as a source of signs ..... 227

    Conclusions ..... 231

    References ..... 231

    Biography ..... 234

*COVID-19 AND ASTRONOMY: EMERGING ISSUES SINCE 2020 – JARITA  
HOLBROOK* ..... 235

    The Impact of COVID on Astrophysicists ..... 235

    Data Collection..... 237

    Analysis..... 239

    Conclusions ..... 240

    Bibliography..... 241

    Biography ..... 243

## **EDUCATION**

*DEVELOPING A CURRICULUM IN CULTURAL ASTRONOMY: A REPORT ON  
DEVELOPMENTS AT THE UNIVERSITY OF WALES TRINITY SAINT DAVID –  
NICHOLAS CAMPION*..... 247

    Introduction: establishing the curriculum..... 247

*Institutional Contexts* ..... 249

*Personal Contexts* ..... 251

    The Curriculum ..... 254

*Introduction to Cultural Astronomy and Astrology/ Foundations in Cultural  
        Astronomy* ..... 254

*Research Methods/Researching Contemporary Cosmologies* ..... 255

*Compulsory Modules: Summary and Recent Developments*..... 257

*Optional Modules: the current curriculum*..... 258

    Conclusion..... 261

    Bibliography..... 262

    Biography ..... 266

*SEACTEACH – A STATUS REPORT – RITA GAUTSCHY, ALEJANDRO MARTÍN  
LÓPEZ* ..... 267

    Introduction ..... 267

    Motivation ..... 269

    Aims ..... 272

Marc Frîncu (coordinator)

---

Teaching concept.....	272
Next steps .....	274
Bibliography .....	275
Biography .....	276