

Wolfschmidt, Gudrun: Booklet of Abstracts.

Timekeeping, Navigation, Surveying – Cultural Astronomy and Instruments.

Conference of the 32th European Society for Astronomy in Culture (SEAC) &
Gesellschaft für Archäoastronomie (GfA), Hamburg, August 25–30, 2025.



Figure 0.1:

Ceiling painting: Starry sky with zodiac
in the Hamburg Planetarium (1930)

(Design for the ceiling painting: Dorothea Maetzel-Johannsen –
Painting by Hinrich Groth of Hamburg)

Gudrun Wolfschmidt

Booklet of Abstracts

Timekeeping, Navigation, Surveying – Cultural Astronomy and Instruments

Conference of the 32th European Society
for Astronomy in Culture (SEAC)
& Gesellschaft für Archäoastronomie (GfA)

Hamburg, August 25–30, 2025



Ahrensburg: tredition 2025

Wolfschmidt, Gudrun: Booklet of Abstracts. Timekeeping, Navigation, Surveying – Cultural Astronomy and Instruments. Conference of the 32th European Society for Astronomy in Culture (SEAC) & Gesellschaft für Archäoastronomie (GfA), Hamburg, August 25–30, 2025. Ahrensburg: tredition 2025.

Web page of the SEAC conference in Hamburg:
<https://www.fhsev.de/Wolfschmidt/events/SEAC-HH-2025.php>.

Front Cover: Navigation, Timekeeping (Photos: G. Wolfschmidt).

Back Cover: Hamburg Observatory aerial view (Archive Hamburg Observatory).



Prof. Dr. Gudrun Wolfschmidt

Center for History of Science and Technology

Hamburg Observatory, Department of Physics, Hamburg University

Bundesstraße 55, Geomatikum, D-20146 Hamburg, Germany

<https://www.fhsev.de/Wolfschmidt/>

<https://www.fhsev.de/Wolfschmidt/GNT/home-wf.htm>.

© 2025 Gudrun Wolfschmidt

Druck und Distribution im Auftrag der Autorin: tredition GmbH,

Heinz-Beusen-Stieg 5, 22926 Ahrensburg, Germany

Das Werk, einschließlich seiner Teile, ist urheberrechtlich geschützt. Für die Inhalte ist die Autorin verantwortlich. Jede Verwertung ohne ihre Zustimmung ist unzulässig. Dies gilt insbesondere für Vervielfältigungen, Übersetzungen, Mikroverfilmungen und die Einspeicherung und Verarbeitung in elektronischen Systemen. Die Publikation und Verbreitung erfolgen im Auftrag der Autorin, zu erreichen unter: Gudrun Wolfschmidt, Grindelberg 77, 20144 Hamburg, Deutschland.

Kontaktadresse nach EU-Produktsicherheitsverordnung:

gudrun.wolfschmidt@uni-hamburg.de.

ISBN – 978-3-384-67440-1 (Softcover), 978-3-384-67441-8 (Hardcover).

Table of Contents

Programme: Timekeeping, Navigation, Surveying – Cultural Astronomy and Instruments	8
1.0.1 SOC – Scientific Organizing Committee	9
1.0.2 LOC – Local Organizing Committee	9
1.0.3 Assistants – Helfer	10
1.0.4 Reviewers	10
1.1 Welcome to Hamburg – Gateway to the World	11
1.1.1 Gudrun Wolfschmidt	11
1.2 Programme of the SEAC Hamburg 2025 – <i>Timekeeping, Navigation, Surveying – Cultural Astronomy and Instruments</i>	12
1.3 Hamburg, Geomatikum, Monday, August 25, 2025	12
1.3.1 Session 1: Stone Age until the Eneolithic	12
1.4 Hamburg, Geomatikum, Tuesday, August 26, 2025	14
1.4.1 Session 2: Ancient Cultures – From Egypt to the Romans	14
1.5 Hamburg Observatory, Wednesday, August 27, 2025	17
1.5.1 Session 3: Medieval and Renaissance Culture	17
1.6 Hamburg Observatory, Thursday, August 28, 2025	19
1.6.1 Session 4: Non-European Cultures and Ethnoastronomy	19
1.7 Hamburg Observatory, Friday, August 29, 2025	21
1.7.1 Session 5: Cultural Astronomy in Early Modern Time until today	21
1.8 Excursion, Saturday, August 30, 2025	23
1.8.1 Long Night of Museums in Lübeck, 18–24 h	25
G. Wolfschmidt: Booklet of Abstracts – SEAC Hamburg 2025	
<i>Timekeeping, Navigation, Surveying – Cultural Astronomy and Instruments</i>	27
Session 1: Stone Age until the Eneolithic	27
2.1 <i>Stellar Signposts: Upper Paleolithic Hunter-Gatherers</i>	
<i>Watched the Pleiades – Evidence, Context, and Purpose</i>	
MICHAEL A. RAPPENGLÜCK	28
2.2 <i>The Dolmen of Santa Inés and its illumination phenomena</i>	
A. CÉSAR GONZÁLEZ-GARCÍA ¹ ; FRANCISCO JAVIER GUTIÉRREZ LÓPEZ ²	
& RAÚL MARTÍN VELA ³	30
2.3 <i>The Three Gifts of a Charioteer</i>	
PATRICK MCCAFFERTY	32
2.4 <i>Archaeoacoustic studies of the Eneolithic calendar gallery</i>	
<i>in the Magura cave, Rabisha village, Bulgaria</i>	
PENKA MAGLOVA ¹ , MINA SPASOVA ² , OGNJAN OGNJANOV ¹ & ALEXEY	
STOEV ¹	35

2.5	<i>Dualism in the sacred territories of rock sanctuaries in the Western Rhodopes, related to astronomical practices in the Eneolithic</i>	
	ALEXEY STOEV ¹ , HRISTINA VALCHANOVA ² , MINA SPASOVA ³ & PENKA MAGLOVA ¹	38
	Session 2: Ancient Cultures – From Egypt to the Romans	41
2.6	<i>Possible Egyptian influences in the orientations of the Minoan palace of Phaistos</i>	
	MARIANNA RIDDERSTAD	41
2.7	<i>Kangelisses – Lakithra: a Winter Solstice Alignment Leads to a Discovery of a Bronze Age Site in Kefalonia, Greece</i>	
	KONSTANTIN KOKKOLIS	44
2.8	<i>Time, society, and vernacular arithmetic in democratic Athens</i>	
	MARCO V. GARCÍA QUINTELA & A. CÉSAR GONZÁLEZ GARCÍA	47
2.9	<i>The water clock discovered in the Frankfurt Rhine: highlighting an entangled temporality</i>	
	ROMAIN RAVIGNOT	49
2.10	<i>Natural Calendars all over the World: All Skies Encyclopaedia</i>	
	SUSANNE M. HOFFMANN, WAYNE HOROWITZ, DAVID HILDER, EUIN CHO KIM & GENNADY E. KURTIK	52
	Postersession	54
2.11	<i>Early Neolithic Lunar Observations at Stonehenge</i>	
	GÖRAN HENRIKSSON	54
2.12	<i>The Celestial Mirror of Madurai – An Interdisciplinary Exploration of the Pashupati Seal, Orion's Constellations, and Tamil Nadu's Sacred Landscape</i>	
	CHANDRASHEKAR BHUPASANDRA UGRANARSIMHAIAH	57
2.13	<i>Orientation of sanctuaries and public spaces in the Centre Region (Turones, Carnutes, and Bituriges) from the Gallic to the Augustan period: a key to locating the Caesarian Locus Consecratus?</i>	
	ROMAIN RAVIGNOT	59
2.14	<i>Are any Byzantine churches in Cyprus converted mosques? An archaeoastronomical approach</i>	
	THEMIS G. DALLAS ¹ & MAITANE URRUTIA-APARICIO ²	62
2.15	<i>Further Thoughts on the Accuracy of Online Tools from Sardinia</i>	
	MAURO PEPPINO ZEDDA ¹ & THEMIS G. DALLAS ²	65
	Session in Planetarium Hamburg	67
2.16	<i>Humans and the Cosmos: From the World Cave to the Big Bang – Anthropology, Ecospheres, and Cultural Cosmologies</i>	
	MICHAEL RAPPENGLÜCK	67
	Session 3: Medieval and Renaissance Culture	69
2.17	<i>Where East meets West: A preliminary analysis of the orientation of historical churches in Romania</i>	
	MAITANE URRUTIA-APARICIO ¹ & MARC FRÎNCU ²	69

2.18	<i>Astronomy, Defense, and Faith: The Astronomical Alignment of Catholic Churches in the Historic Center of Rio de Janeiro</i>	
	THIAGO SIQUEIRA DOS REIS DA SILVA ¹ , WALMIR THOMAZI CARDOSO ² (PRESENTER) & SIXTO RAMÓN GIMÉNEZ BENÍTEZ ³	72
2.19	<i>Geometric Analysis and Advanced Surveying Techniques in the Study of Early Christian Starry Skies</i>	
	MANUELA INCERTI	74
2.20	<i>Astronomical Clocks and Gottorf Globe – Astronomical Heritage in the Baltic</i>	
	GUDRUN WOLFSCHMIDT	78
2.21	<i>The planets on the old astronomical clock in Münster</i>	
	BURKARD STEINRÜCKEN	80
2.22	<i>Zeit und Zeitmessung im Alten Ägypten (Time and Timekeeping in Ancient Egypt)</i>	
	RITA GAUTSCHY	83
	Session 4: Non-European Cultures and Ethnoastronomy	85
2.23	<i>Searching for the Most Widespread and Old Skylores</i>	
	MARC THUILLARD	85
2.24	<i>Revisiting the Lunar Series on the Tikal Ballgame Marker – a new Hypothesis</i>	
	STANISŁAW IWANISZEWSKI	88
2.25	<i>The role of historical sources and digital repositories in Cultural Astronomy studies: a case study</i>	
	WALMIR THOMAZI CARDOSO ¹ & JANECLÉIDE MOURA DE AGUIAR ²	90
2.26	<i>Water clock and sundials from the reign of King Sejong (1397–1450) of the Joseon Dynasty</i>	
	YANG HYUN CHOI	93
2.27	<i>Kosmos in Stein: Archäoastromische Aspekte des Anantaliṅgeśvara Mahādeva Tempels in Nepal</i>	
	PERRY LANGE	95
	Session 5: Cultural Astronomy in Early Modern Time until today	98
2.28	<i>Peter Apian – a pioneer in astronomical and geographical instrumentation</i>	
	SONJA DRAXLER & MAX E. LIPPITSCH	98
2.29	<i>The evolution of Schickard’s Astroscopium through three generations</i>	
	DORIS VICKERS	102
2.30	<i>Research on James Cook’s On-Board Toolkit for Astronavigation</i>	
	ANNA PAULE	105
2.31	<i>Giovan Domenico Cassini and the Celestial Novelties: the Resilience of Astral Divination</i>	
	GIANGIACOMO GANDOLFI	108
2.32	<i>Historical Eclipse Records and Earth Rotation Variability</i>	
	ANDREAS FULS	110

Workshop: Creation of photo-based landscapes for Stellarium	113
2.33 <i>Creation of photo-based landscapes for Stellarium</i>	
GEORG ZOTTI	113
Appendix: General Information	115
3.1 Links	115
3.2 Museums and Collections in Hamburg University and in Hamburg	116
3.2.1 Museums and Collections in Hamburg University	116
3.2.2 Museums in Hamburg	117
3.3 Public Transport (ÖPNV) and Deutschlandticket	119
3.3.1 Public Transport in Hamburg	119
3.3.2 Deutschlandticket	119
3.3.3 Schleswig-Holstein Ticket	119



Figure 0.2:
Hamburg Coat of Arms and Steamship

(Photo: Gudrun Wolfschmidt)