



**TOMBS AND
ASTRAL
KNOWLEDGE
FROM EGYPT TO
CHINA
(1000 BCE – 1000 CE)**

2-3 November 2023

Harnack House

Conference Programme



DEPARTMENT III
**MAX PLANCK INSTITUTE
FOR THE HISTORY OF SCIENCE**
ARTIFACTS, ACTION, KNOWLEDGE



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA

**MAX PLANCK
GESELLSCHAFT**



This international conference will focus on materiality and narrativity as tools to explore astral imagery in tombs and related objects in a variety of cultures (Hellenistic, Chinese, Egyptian, Central Asian) between approximately 1000 BCE and 1000 CE. Some of the main topics are funerary art in its ritual context, cultural interactions in funerary art, new archaeological excavations and case studies, comparative studies on funerary art, materiality of the heavens in funerary art, and methodological approaches for studying tombs.

During these two days, we will challenge disciplinary boundaries and test unconventional ideas. Bringing together experts in various disciplines (history, history of science, archaeology, history of art, and related disciplines), the conference will offer interpretations on newly discovered material (e.g., Pella tomb, Egyptian coffin) and new approaches to well-established ones (e.g., Brindisi plate). We will explore boundary cultures (e.g., ancient Thrace) as well as a wide range of funerary objects (e.g., coins, textiles, votive reliefs). Our contributors will challenge traditional interpretations of astral imagery on funerary objects and their contextualization in rituals, for example, via the so-called Egyptian Star-Clocks, zodiacal motifs in East Asian tombs, the development of celestial deities in Central Asia, the role of Scythian tombs and so on, to further our understanding of funerary practices and their related cultures. Thus, our discussion will facilitate an exchange of perspectives, interpretive analyses, and methods on similar practices regarding the usage of astral imagery in a multitude of cultures.

We hope that the conference will prove stimulating, and we look forward to the ongoing discussions it will spark. To that end, we hope to see those of you who are interested again for a writers' workshop in 2024, where we will prepare the results of the conference for publication in an edited volume or a special issue of a journal.

Stamatina Mastorakou (MPIWG), Rana Brentjes (MPIWG), Jeffery Kotyk (U Bologna)



Images: Tomb of Ramses IV, Valley of the Kings, West Bank, Luxor, Egypt, 1185–1079 BCE, Wikimedia Commons /// Lacquered wood suitcase replica, Tomb of Marquis Yi of Zeng, Hubei Provincial Museum, Wuhan, China. Photo by Gary Todd, Wikimedia Commons.

Programme

Day 1	Speaker & Title
10:00-10:15	<i>Introduction</i>
10:15-11:00	Massimiliano David: <i>Main Topics for Funerary Archaeology Applied to Late Antiquity</i>
11:00-11:30	<i>Coffee Break</i>
11:30-12:00	Jeffrey Kotyk: <i>Lunar Stations and Zodiac Signs in East Asia: Mandalas and Tombs</i>
12:00-12:30	Chuanyi Lyu/Sun Mengting: <i>A Different Interpretation of the Picture of Lunar Mansions and Dragon-Tiger from the Tomb of Zen Marquis Yi</i>
12:30-13:30	<i>Lunch</i>
13:30-14:00	Alisher Begmantov: <i>Nana, a Mesopotamian Goddess in the Funerary Tradition of Central Asia</i>
14:00-14:30	Jinsong Guo: <i>Looking Up or Looking Down at the Heavens: Two Types of Cosmic Representations in Chinese Tombs and Their Meanings, 5th c. BCE – 12th c. CE</i>
14:00-15:00	<i>Coffee Break</i>
15:00-15:30	Consuelo Manetta: <i>Subterranean Stars. Astral Imagery and Eschatology in Ancient Thrace' Funerary Art</i>
15:30-16:00	Eurydice Georganteli: <i>In Paradise: The Materiality of the Heavens in Late Antique Funerary Art</i>
16:30-18:00	<i>Reception</i>
Day 2	
10:00-10:15	<i>Introduction</i>
10:15-11:00	Rana Brentjes: <i>Astral Imagery in Tombs and on Funerary Objects from ca. 1st Millennium BCE to 1400 CE from the VoH Database</i>
11:00-11:30	<i>Coffee Break</i>
11:30-12:00	Fabio Spadini: <i>Per Aspera ad Astra. Naming the Seven Stars on Roman Children's Funerary Reliefs</i>
12:00-12:30	Bilal Annan: <i>Shine on You Celestial Diamond. Funerary Iconography with Astral Connotations in Petra and Palmyra</i>
12:30-13:30	<i>Lunch</i>

13:30-14:00	Nikolaos Pappas: <i>Astral Symbols on Monumental Tombs of the Macedonian Kingdom</i>
14:00-14:30	Stamatina Mastorakou: <i>The Antigonid Tomb at Pella and Its Mural</i>
14:00-14:30	<i>Coffee Break</i>
14:30-15:00	Andreas Winkler: <i>Bowl, Board, and Burial</i>
15:30-16:00	Sarah Symons: <i>Spatial Arrangement of Star Maps, Tables, and Clocks in Ancient Egyptian Tombs</i>
16:00-17:00	Final Remarks & Discussion

Abstracts

Bilal Annan (University of Groningen): *Shine on You Celestial Diamond: Funerary Iconography with Astral Connotations in Petra and Palmyra*

The multifaceted funerary ideology that permeated the societies of the Graeco-Roman Near East has so far, both in shape and substance, stubbornly and to a great extent evaded the modern observer. Yet, in a context where relevant textual sources from the region under study are singularly lacking, one may still hope to approach this ideology, if not delineate it, through a close examination of its visual translations. The identification of pervasive iconographic themes across the funerary landscapes of the Nabataean and Roman Near East may in this respect shed light on a seemingly overlooked aspect of this ideology, namely the overlapping of the funerary and religious spheres in the form of a (perhaps allegorical) celestial ascent of the deceased's "soul" (in itself an elusive notion in the religious constellations of the Graeco-Roman Near East), a journey materialized by the inclusion in the tomb's decoration of mythological figures or celestial creatures such as eagles. This paper proposes to study the iconographic choices made by royal or wealthy patrons in their respective tombs in Petra and Palmyra, alluding to such an ascent. In Petra, the façades of royal tombs such as the "Khazneh", the so-called "Tomb of the Roman Soldier" and the "Silk Tomb" display representations of the twin gods Arṣu and 'Azizu, which were visually equated with the Dioscuri and symbolized, in the Nabataean cosmographic discourse, the morning and evening stars. These same gods are perhaps hinted at in at least two painted tombs in Palmyra, that of the "Three Brothers" and that of "Hairan", both of which feature ornamented vaulted ceilings evoking nocturnal skies. In this paper, I will reflect on the celestial aspects of these gods and their relevance in the context of the deceased's potential *postmortem* apotheosis. The main evidence for this identification is literary (Greek sources), but some Nabataean sanctuaries were decorated with zodiacal symbols and representations of these twin gods, so there is some evidence supporting this aspect of their competences. I will present some of this evidence in my paper.

Bilal Annan is a researcher in Classical Archaeology, specializing in art history and funerary archaeology. His PhD project, completed in May 2022 at the Ecole pratique des Hautes Etudes in Paris, focused on funerary portraiture in the Hellenistic Near East. Alongside his doctoral research, he has also taught for several years Roman archaeology at the Sorbonne University and Greek art history at the Institut catholique de Paris. Since September 2022, he has been involved as a postdoctoral researcher in a research project (Mortuary Archaeology of the Roman East) at the University of Groningen, with a focus on Palmyrene portraiture in relation to funerary rituals.

Alisher Begmatov (University of Vienna / Berlin-Brandenburg Academy of Sciences and Humanities): *Nana, a Mesopotamian Goddess in the Funerary Tradition of Central Asia*

Increasing pictorial materials from Central Asia, including the Kafir-kala wooden panels reaffirm the significance of the goddess Nana, especially in the pantheon of the Sogdians, cosmopolitan merchants along the Silk Roads. In particular, the Sogdian funerary “Miho coach” from China and the ossuary from Khirmantepa in Kashkadarya, Uzbekistan, both of which depict four-armed Nana seated on a lion throne, as well as presence of this deity in the Panjikent “Hell – Heaven” and lamentations scenes, indicate that the goddess Nana was involved in the Sogdian burial traditions. This paper will chiefly focus on the goddess Nana and her role in the afterlife. It will also briefly present artefacts recently discovered in Central Asia that are related to funerary art.

Alisher Begmatov conducts research on the extinct languages and cultures of pre-Islamic Central Asia, by taking an integrative approach combining fields such as philology, archaeology, and art history. As a research scholar at the Berlin-Brandenburg Academy of Sciences, he has been editing Sogdian textual materials from Central Eurasia. He takes a great interest in archaeology as well as philology and participates in expeditions in Central Asia. He has been engaging with and organizing excavations at the sites of Kafir-kala, Dabusia, Kuldortepa and Mingtepa in Uzbekistan, and other sites in Central Asia. His research also focuses on artefacts bearing various figurative representations along with Sogdian and Bactrian inscriptions, namely on those newly unearthed from Samarkand and neighbouring oases. He received his doctoral degree from Kyoto University, Japan. His doctoral thesis entailed a critical re-evaluation of the Sogdian documents found at Mount Mugh in Tajikistan, dated to the early 8th Century AD.

Rana Brentjes (MPIWG): *Astral Imagery in Tombs and on Funerary Objects from ca. 1st Millennium BCE to 1400 CE from the VoH Database*

I will present examples from the VoH Database of astral tombs and funeral objects across Eurasia from ca. the late 1st mill. BCE to the 14th century. I will show their geographical localizations and distribution over time and ask questions about the meaning of the two sets of data. I will attempt to relate the materiality and iconography of some of the objects to their temporal and spatial presence. Moreover, I hope to include possible aspects of collection history.

My main question is which objects from tombs/graves with astral imagery are uniquely defined by their specific funerary context and which types of materiality and/or iconography are shared with objects from other contexts.

Rana Brentjes is the Digital Content Curator of the “Visualization and Material Cultures of the Heavens in Eurasia and North Africa (4000 BCE–1700 CE)” Working Group at the MPIWG. In this role, she both edits and further develops the VoH Image Database. She also cooperates with internal and external researchers by providing material for scholarly presentations, co-organizing workshops and conferences, co-editing books, as well as collaborating with the Research IT-Team in developing the Working Group’s digital humanities projects. Her broad educational profile as a photo designer, contemporary art historian (Sotheby’s/Manchester University) and sociocultural historian (Goldsmith College, University of London) as well as her work experience as an art curator, editor, and executive administrator, make her well-suited to these tasks. She was previously the assistant editor of the *Routledge Handbook on the Sciences in Islamicate Societies* (2023) and is currently co-editing *Imagining the Heavens across Eurasia from Antiquity to Early Modernity* (Mimesis, forthcoming). Since 2021, she has presented papers on the research potentials of the database and is currently preparing a digital series to publicize these findings. Moreover, she oversees the Working Group’s lecture series and co-organized the *Visualizations of the Heavens — The Database as a Research Tool* Workshop in October 2022. In 2024, she will design a virtual exhibition and pilot a network-analytical study with materials from the database.

Massimiliano David (Sapienza University of Rome): *Main Topics for Funerary Archaeology Applied to Late Antiquity*

The great transformations of late antique society are accompanied by the elaboration of new forms of organization regarding death. In particular, we can verify the progressive transition from incineration to inhumation declined in multiple forms. Burials undergo significant transformations due to the change in rituals influenced by the numerous cultural identities present in the Mediterranean world and in surrounding areas. The process of Christianization is responsible for the progressive atrophy of the practice of accompanying the dead with representative objects. New forms of collective organization of burials (sub divo and underground like catacombs) are developed. Even regarding funerary buildings, we are witnessing the experimentation of new architectural types. Furthermore, funerary inscriptions play a decisive role in recognizing the dead. Christianity shows deceased persons alive in Heaven represented as a lush flower garden or a splendid palace. Finally, starting from the 5th century, the progressive detachment of cemeteries from the suburban spaces in which they had been confined for centuries should be noted with extreme attention.

Massimiliano David is an Associate Professor in Late Antique, Christian and Medieval Archaeology at University of Rome Sapienza; previously, he taught for 20 years at the University of Bologna. Member of many archaeological missions in Italy and abroad, he is co-director of SAPP (Sapienza Agia Polis Project). He directs the Ostia Marina Project (about the ancient town of Ostia), the Aquae Sapientes Project (about a sanctuary of waters) and the Melissa Project (about urban archaeology in Ravenna). His interests are mainly directed

towards the field of Late Antiquity, reading it from the point of view of the building productions, urbanism, and town planning. Among the exclusive productions of Late Antiquity, he has published many studies about ivory diptychs. He has demonstrated great attention to the religious problems read in the light of archaeological evidence, with particular attention to the phenomenon of Mithraism. He is author of about 400 papers and books of archaeology. He is member of I.C.O.M. (International Committee of Museums), S.R.S.P. (Società Romana di Storia Patria), A.I.E.M.A. (Association Internationale pour l'étude de la mosaïque antique), N.U.M.E. (Gruppo di Ricerca sul Medioevo Latino), A.I.R.P.A. (Associazione italiana per lo studio della pittura antica), A.I.S.C.O.M (Italian association for the study and conservation of mosaic), Consulta Universitaria per l'Archeologia Post-classica and F.C.A. (Federazione Consulte Universitarie per l'Archeologia). He attends the editorial board of international periodicals like "Past" and "Temporis signa."

Eurydice Georganteli (Harvard University / MPIWG): *In Paradise: The Materiality of the Heavens in Late Antique Funerary Art*

When thinking of the visualization of the heavens in Roman and late antique funerary art and architecture, one cannot fail to observe that the heavens had always been part of Roman beliefs, as the sublime cosmos where heroes and virtuous statesmen who had served their fatherland nobly came from, and where they ultimately returned upon their passing. And thus, the vast and mysterious expanse of outer space, known in Cicero's Dream of Scipio as a shining circle whose brightness was matched by the luminous divinized ancestors who inhabited it, became an essential aspect of Roman funerary architecture, art, and coinage. Funerary cosmology included gods Caelus, Aion, and Helios/Sol, arcs with zodiac signs, representations of winds, and the apotheosis of emperors carried by griffins and eagles onto the heavens. In Rome's Pantheon, the interior organization of space and the massive hemispherical dome with its large central oculus open to the sun served as cosmological signposts for the imperial cult and provided sacred associations with the mausoleum of Augustus and the Campus Martius, the locus of Romulus's apotheosis. With Christianity upstaging paganism in the second half of the 4th century, ancient iconographical motifs and architectural forms were often tweaked, reused, and interpreted in a new Christian light. In Ravenna's mausoleum of Galla Placidia, solar imagery appears in the company of brilliant stars, night skies, and shimmering crosses as an apt visualization of Christian heaven. Yet, unlike the distant outer space the Romans called the heavens, paradise in early Christian theology and art becomes inseparable from the world of the mortals. Pastoral landscapes in which Christ presides as the Good Shepherd, scenes of wine making, fruits and flowers, heavenly Jerusalem as a Roman cityscape, and Christ in mandorla as a representation of His divine light articulate the connection between the earthly and the metaphysical realm, death and resurrection, and the promise of salvation.

Eurydice Georganteli studied Art History and Archaeology at the Aristotle University of Thessaloniki and Numismatics at the Universities of Oxford and Cambridge in the UK. Before joining Harvard University as a Lecturer in Art History and Numismatics, she was the Keeper of Coins at the Barber Institute of Fine Arts and Lecturer in Numismatics at the University of Birmingham, UK (2000-2016), where she spearheaded the conservation, digitization, and

display of the Coins and Seals Collection, and directed the Graduate Programme in Numismatics (2001-2012). An award-winning curator, author, and academic tutor, she has lectured and held research fellowships in Europe and the United States. From 2012-2016, she was Marie Curie Senior Research Fellow and Principal Investigator of two European research projects on cultural routes and digital heritage. A specialist in South-Eastern Europe and the Eastern Mediterranean, Georganteli has taught, curated exhibitions, and published on late antique and medieval art, numismatics, archaeology, portable antiquities, cultural heritage, and digital storytelling. She uses archaeological evidence, written sources, and the changing patterns in the geographies of transport to trace economic and cultural exchange in late antique and medieval Europe and the Middle East. She sits on the Board of Trustees of Hellenic College Holy Cross and the Mary Jaharis Center for Byzantine Art and Culture and is a Fellow of the Society of Antiquaries of London. Eurydice's research project at the Visualization of the Heavens Research Group, Department AAK, MPIWG focuses on celestial bodies on ancient and medieval coins and their relationship to scientific knowledge, religious beliefs and rituals, political power, economic planning, and cross-cultural entanglement.

Jinsong Guo (Peking University): *Looking Up or Looking Down at the Heavens: Two Types of Cosmic Representations in Chinese Tombs and Their Meanings, 5th c. BCE – 12th c. CE*

This paper presents a new typology and genealogy of depictions of the heavens in early and medieval Chinese tombs. The focus is on the two different points of view as determined by the position of the supposed observer as relative to the heavens: whether the images represent celestial patterns as observed upward from the earth, or as imaginatively seen downwards from beyond the stars. The paper asks and analyses how these two perspectives of visualizing the heavens were utilized in mortuary contexts and what meanings they were intended to convey. Artefacts that will be examined include star maps on tomb ceilings, divinatory devices known as “cosmic boards” and resembling burial objects, and stone covers with celestial images on them for inscribed epitaphs. The paper will also discuss the adaptation of Western zodiacs in Chinese tomb images.

Jinsong Guo is an Assistant Professor and Research Fellow at the Center for Ancient Chinese History and History Department, Peking University. He received his PhD in Chinese history and the history of science from Princeton University. He has published several essays on premodern Chinese astral and mathematical sciences and is preparing a book on astronomy in the Mongol-Yuan period. His research seeks to combine the reconstruction of technical and textual practices with the understanding of broader cultural contexts.

Jeffrey Kotyk (University of Bologna): *Lunar Stations and Zodiac Signs in East Asia: Maṅḍalas and Tombs*

Some extant tombs in East Asia include murals of asterisms on the ceilings. The twenty-eight indigenous Chinese lunar stations (not to be confused with the Indian nakṣatras) are attested

earlier, but later we have at least one example of the twelve zodiac signs in a Liao-era tomb. The zodiac signs were earlier visually represented on Buddhist maṇḍalas, which generally were preserved as copies in Japan. Moreover, the lunar stations as illustrated asterisms also exist in various forms. This paper is a preliminary attempt at comparing and discussing these asterisms. We will also discuss the semantic significance of displaying them in tombs.

Jeffrey Kotyk (Leiden University, PhD, 2017) is presently an Associate Researcher at the Department of Cultural Heritage of the University of Bologna in Ravenna, Italy, where he is leading a project, Sino-Iran, that documents cultural connections between West and East Asia in late antiquity. He has worked extensively on the history of astral sciences in East Asia and published in various periodicals, including *Studies in Chinese Religions* and *Japanese Journal of Religious Studies*.

Chuanyi Lyu and Mengting Sun (Hubei Academy of Social Sciences / MPIWG):
Inheritance and Integration: A Different Interpretation of the Picture of Lunar Mansions
and Dragon-Tiger from the Tomb of Zen Marquis Yi

The astronomical map on the lacquer box excavated from the Tomb of Zen Marquis Yi is one of the most famous early objects in the history of astronomy, and the picture of the dragon-tiger figure accompanying the lunar mansions has always been the focus of academic discussion. Previous studies show that they are highly related to the construction of the system of Four-image and Twenty-eight-constellation, and whether they can be compared in this way is a question worth discussing. To analyse the pattern details in the map, it can be confirmed that there is no clear correspondence between the dragon-tiger figure and the 28 constellations. According to the origin, it may be concluded that the Dragon-Tiger figure is inherited from the ancient astronomical tradition of the Central Plains by the Chu Culture, while the 28 stars come from the astronomical tradition of the non-Chu culture. It should be the main reason for the lack of a clear corresponding relationship with each other that two kinds of information from different traditions are drawn into the same picture, but they have not yet been integrated. The way that they are drawn in one map reflects the convergence and integration between Zen-Sui culture and Chu culture in the early Warring States.

Chuanyi Lyu is a historian of Chinese astrology. He received his PhD at the Institute for the History of Natural Sciences, Chinese Academy of Sciences. Now he is a professor in the Center for Ancient Chinese Astronomy of Hubei Academy of Social Sciences. His major research interests are Chinese astrology, ancient calendar, and excavated documents.

Mengting Sun is working on her PhD in Arts and Sciences at the University of Chinese Academy of Sciences. Her major research focuses on ancient astronomical images.

Consuelo Manetta (Scuola Normale Superiore di Pisa): *Subterranean Stars. Astral*
Imagery and Eschatology in Ancient Thrace' Funerary Art

My article focuses on some intriguing decorations from Hellenistic and Roman Thrace, which demonstrate that astral/cosmic images found a place in elite funerary art. They include the crescent moon and star carved on the wall of the burial chamber tomb at Dolno Lukovo, the head of Helios painted on the marble door of the tomb beneath the Goljama Kosmatka Tumulus, and the starry sky on the vault of the tomb in Tumulus A at Vize, Kiklareli. As I have argued recently, an astral/cosmic programme was featured in the coffered ceiling of the tomb in the Ostrusha Tumulus, where the personification of the Pleiades may have peopled a symbolic sky together with Nereids, Sirens, and characters from Greek myth. On the strength of this evidence, it seems that bringing the celestial into the underworld – and projecting the underworld into the celestial realm in turn – appealed to the warlike Thracian aristocracy, as it did to Eastern, Greek, and Roman civilisations. Several factors enhance these Thracian examples' importance for understanding Thracian religion, art and culture, the knowledge of which is still partial and controversial. One question we may ask, for example, is whether they offer evidence of a local tradition of astral eschatology. More generally, the topic offers a special opportunity to explore cultural interactions in funerary astral art and the reception of Greek and/or Eastern art, culture, and values in a non-Greek environment.

Consuelo Manetta is an Assistant Professor at the Scuola Normale Superiore di Pisa, as staff member of the ERC project “IN-ROME. The INscribed city: urban structures and interaction in imperial ROME,” directed by Barbara E. Borg. After completing her education at Sapienza University, in Rome, she earned a joint PhD in Ancient History and Archaeology from Tor Vergata University, Rome, and from the University of Sofia, BG with a dissertation on the painted tombs of Thrace from the Classical to the Late Antique periods. Prior to joining the Scuola Normale, she spent ten years abroad. She held two Marie Curie Research Fellowships, respectively at Exeter University, UK (2019-2021), and at the Aarhus Centre for Advanced Studies, DK (2014-2017). In Aarhus, in particular her research project (‘The Different Faces of the Sky’. Decorative culture, floral, astral, and mythological representations within figural coffered ceilings) focused on the architecture, iconography (esp. astral imagery), and iconology of the coffered and pseudo-coffered covering systems between the 5th century BC and the 4th century AD. Previous fellowships include an A. Onassis postdoctoral fellowship, and a postdoctoral fellowship at the Center for Hellenic Studies, Harvard University, Washington DC. She is specialised in the art and archaeology of the ancient Mediterranean and Black Sea-region, with two main focuses: 1) Rome, its suburbium and Latium Vetus; 2) Thrace. Her research agenda lies at the crossroads of art history, archaeology, and socio-cultural history. Her area of expertise includes Greek, Roman and Thracian funerary art and archaeology, Greek and Roman religion, topography, and urbanisation, with a special focus on population dynamic, and socio-political and cultural interactions among urban and extra-urban areas, as well as among local and foreign communities. In addition to several authored and coauthored articles, her book *Le tombe dipinte della Tracia tra l'età tardo classica e la prima età ellenistica* is forthcoming.

Stamatina Mastorakou (MPIWG): *The Antigonid Tomb at Pella and Its Mural*

In my paper, I explore a Macedonian tomb excavated in Pella in 2001, which dates back to the Hellenistic era. Situated on a hill above the Antigonid palace, one of the four Hellenistic

kingdoms established after the passing of Alexander the Great, this cist-grave possesses significant historical significance. Despite the unfortunate pilfering of its treasures, the mural decoration found within remains remarkably unique. I will primarily focus on the painting, particularly on one of the five male figures depicted on the western wall. This central figure, for whom the tomb was specifically constructed, is depicted pointing towards a celestial globe, indicating his association with astral knowledge. Through my analysis, I aim to present a new interpretation of the tomb and its mural within their historical and cultural context.

Stamatina Mastorakou is the leader of the Working Group “Visualization and Material Cultures of the Heavens in Eurasia and North Africa (4000 BCE–1700 CE)” and the book review editor of *Aestimatio: Sources and Studies in the History of Science*. Her research focuses on the history of ancient astronomy and is based on literary and archeological sources. She has a bachelor’s and master’s degree in history and philosophy of science from the University of Athens, Greece, and a PhD from Imperial College, University of London, in the History of Hellenistic Astronomy. She has extensive teaching and research experience at institutions in the United States, Greece, Germany, Switzerland, and the UK. As a Research Scholar at MPIWG, she is working on her second monograph “The Popularization of Astronomical Knowledge in Antiquity: Shaping Celestial Imagery through Poetry, Art and Politics.” Her book explores the production and dissemination of astral knowledge in the Hellenistic world, which was shaped by the popular astronomical poem *Phaenomena* by Aratus, the political agenda of the Antigonids, and the creation of celestial globes and artistic objects with astral imagery.

Nikolas Pappas (Archaeological Museum of Pella): *Astral symbols on Monumental Tombs of the Macedonian Kingdom*

The article, on one hand, will present depictions which are connected to astral symbols and constellations, coming from monumental tombs (wall paintings or offerings) of the Macedonian kingdom, aging from its peak, during the reign of Philip II and his successors (second half of the 4th century BC), until its conquest by the Romans (168 BC). On the other hand, an attempt will be made to interpret why the specific depictions/symbols appear in the related tombs and how they are connected to the royal family and its supporters or the enlightened leadership in general. Philip II's initiation into the Pythagorean doctrines and his connection to the Platonic Ideas was highly catalytic in this regard.

Nikolaos V. Pappas was born in Trikala and lives in Thessaloniki (Greece). He studied at the Department of History and Archaeology of the Faculty of Philosophy of the Aristotle University of Thessaloniki. He holds two master's degrees in Classical Archaeology and Art and Byzantine Archaeology and Art from the same university respectively. He was also awarded a doctorate at the same university. He is an Archaeologist of the Ministry of Culture of Greece, Head of the Department of Prehistoric and Classical Antiquities and Museums of the Ephorate of Antiquities of Pella, in which he also served as Deputy Director (2018-2020). For several years he worked on the restoration of the Byzantine monuments of Thessaloniki and has carried out excavations in several ancient Macedonian cities and settlements (Pella, Athyra, Paralimni, Lipochori, Mavrovouni, Rizo, Sevastiana, Veria, Makrochori, Kilkis, Liti, Potidia). Apart from restorations and excavations, he has given special care to the planning and implementation

of educational programs, contributing to the dissemination of his science in society. He also worked in private and public secondary and post-secondary education. He is a founding member of the Association of Friends of the Archaeological Museum of Pella, in which he was also a member of the Board (2018-2019), founding member of the Friends of Nikos Astrinidis Group and member of the Association of Greek Archaeologists and the Friends of Thessaloniki Monuments Association.

Fabio Spadini (Free University Berlin / SNF): *Per Aspera ad Astra. Naming the Seven Stars on Roman Children's Funerary Reliefs*

A Roman funerary relief kept in Copenhagen shows the bust of a boy on the left, and the one of a girl on the right. The little girl is depicted above a moon crescent open to the top, surrounded by seven eight-pointed stars. Our analysis will first try to understand to which astral body these stars refer. Is it the Seven Planets or the constellation of the Great Bear (Ursa Major)? The latter very often linked to the soul's resting place in Greco-Roman sources. This funerary relief is a visualization of the astral journey of the soul that follows a "stellar model." We will then try to establish a link between this funerary relief and other funerary monuments that seem to convey a similar message, i.e., the depiction of the journey of the soul of the deceased to the sky, following what I call the "zodiacal model" (Brindisi disk, Igel zodiac, etc.). The main interest will be in understanding which are the main sources that were behind these two types of models.

Fabio Spadini is an archaeologist and ancient historian with a focus on the study of Greek and roman ancient iconography. His research area concerns ancient glyptic, magic and the history of science (alchemy and astrology) from Antiquity to the Middle Ages. He is currently a SNSF (Swiss National Science Foundation) post-doc researcher in archaeology at the Freie Universität Berlin and scientific collaborator at the University of Fribourg (CH). His current project (n° P500PH_206665) is titled "Reconstruire le ciel des Anciens. Genèse et développement de l'image zodiacale". He is also an associate member of the ERC Advanced Grant (European Research Council) "ZODIAC-Ancient Astral Science in Transformation". His upcoming book, *Le ciel sur pierre. Les gemmes astrologiques romaines (II^e s. av. J.-C. – IV^e s. apr. J.-C.)* will be published in 2024 with Oxford Archeopress.

Sarah L. Symons (McMaster University): *Spatial Arrangement of Star Maps, Tables, and Clocks in Ancient Egyptian Tombs*

The ceilings of temples and tombs, and the underside of coffin and sarcophagus lids, in ancient Egypt represented the sky and were often decorated with sky motifs. Occasionally, instead of using repeating solar or stellar motifs, sky diagrams, tables, or texts were used. Here, we look at the use of such astral content in royal and non-royal tombs and associated structures from around 2000 BCE to as late as 125 CE, examining the locales and orientations used for this material and considering changing tastes in content, arrangement, and location. We will use occurrences of diagonal star tables, astronomical diagrams, Ramesside star clocks, and some celestial Books (Nut, Day, and Night). This gives a data set of about 80 entries, which can be

cross-referenced against four distinct “locales” (burial chamber ceilings, tomb corridor ceilings, coffin or sarcophagus lid undersides, and mortuary temple ceilings). From this data, the evolution of astral depictions in Egyptian funerary contexts can be traced. This course of development can also add to our understanding of the role of time, as demonstrated by the motion of the heavens, in ancient Egyptian tomb decoration.

Sarah Symons is a Full Professor in the School of Interdisciplinary Science, McMaster University in Hamilton, Ontario. She has a PhD in ancient Egyptian astronomy from the University of Leicester, UK. Her research in history of astronomy concentrates on interpreting astronomical texts and instruments from ancient Egypt and investigating how the night sky was perceived, explained, and depicted. She is the editor of the ancient Egyptian astronomy database, an online resource for scholars, and co-edited *Down to the Hour: Short Time in the Ancient Mediterranean* with Cassandra Jackson Miller in 2019.

Andreas Winkler (Free University Berlin / University of Warsaw):
Bowl, Board, and Burial

The most famous Egyptian zodiac depictions are found in temples from the late Ptolemaic and the Roman periods. However, such motifs can also appear from time to time in a funerary context. Here the zodiac could, for instance, represent the ideal new year in which the deceased was to return to life, or be configured in such a manner that it represented the date of birth of the interred person. This paper will examine these zodiacs from a comparative point of view, relating the depictions to other applications of such imagery from Graeco-Roman Egypt, such as astrologers’ boards and bowls or dishes, which have been interpreted as astrologer’s tools or ritual vessels. The aim is to track the associations of the zodiac depictions with other types of images and to characterize the artistic choices made in different spheres of representing the heavens.

Andreas Winkler is an Egyptologist and historian of science at FU Berlin and the University of Warsaw, where he teaches the history of Egyptian science and medicine and Egyptian languages. He specialises in Egyptian astral sciences in Graeco-Roman Egypt, but he also works on the socioeconomic history of the period. While his primary focus is on textual materials, including preparing editions of new texts, he also considers material culture relevant to his research.

Visualization of the Heavens

SINO IRAN

