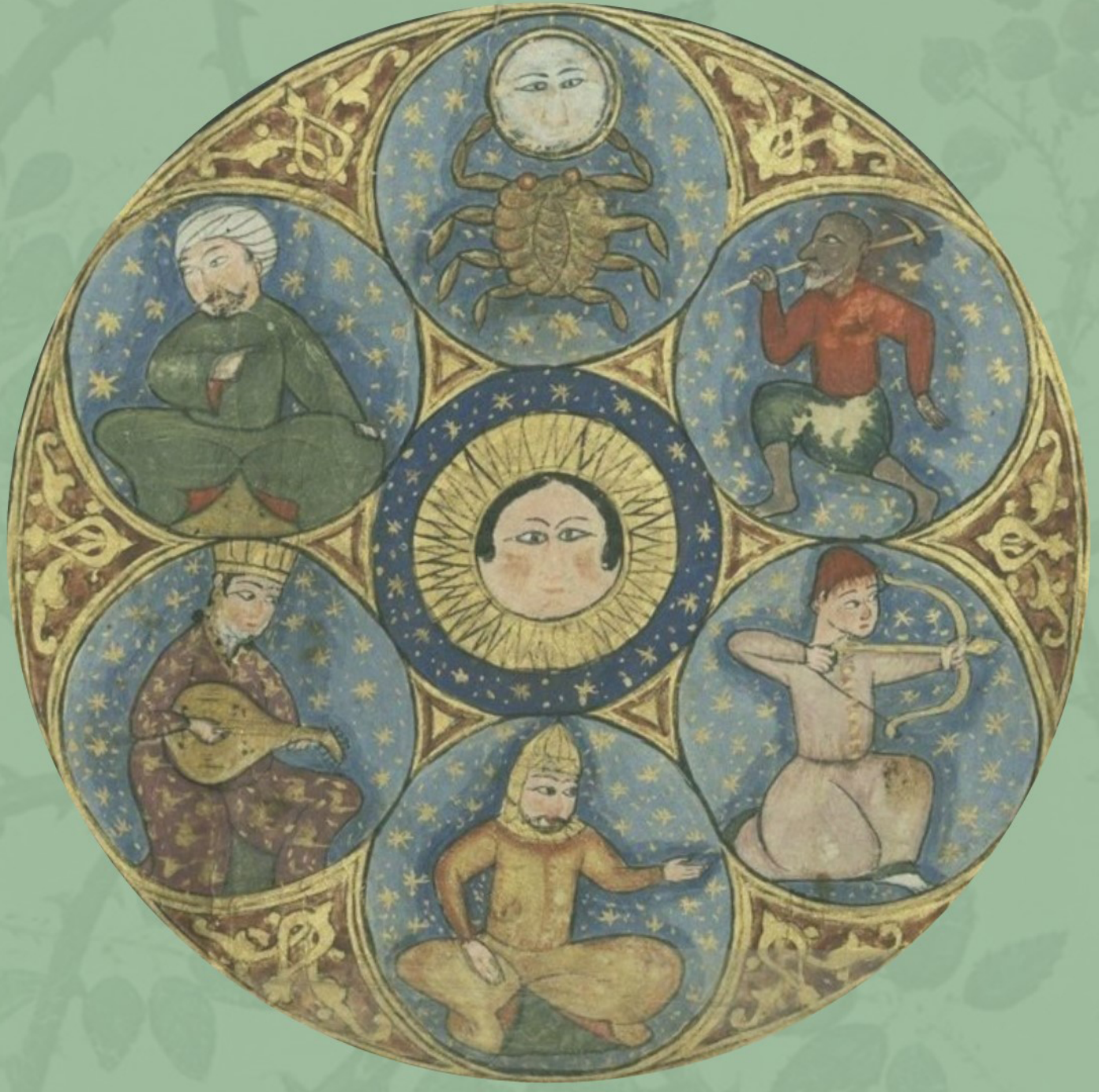
SCIENTIAE

DISCIPLINES OF KNOWING, 1400-1800

12th Annual Meeting

ISTANBUL

16-19 SEPTEMBER 2025



ISTANBUL UNIVERSITY

FACULTY OF LETTERS

Hosted by **Istanbul University Department of the History of Science**

https://bit.ly/Scientiae2025

SCIENTIAE
DISCIPLINES OF KNOWING IN THE EARLY MODERN WORLD

İ.Ü. İSTANBUL ÜNİVERSİTESİ 1453

İ.Ü. EDEBİYAT FAKÜLTESİ BİLİM TARİHİ BÖLÜMÜ

TÜBİTAK

TÜBA

TBTK

Institut Français d'Etudes Anatoliennes

İSTANBUL İSVEÇ ARAŞTIRMA ENSTİTÜSÜ

ORIENT-INSTITUT ISTANBUL

İSTANBUL ÜNİVERSİTESİ MERKEZ KÜTÜPHANESİ

Yenikapı Batıkları

KURUKAHVECİ MEHMET EFENDİ

Scientiae 2025: Istanbul

16-19 September, Annual Conference

Book of Abstracts

Table of Abstracts

Committees

SCIENTIAE Committee Members

Stefano Gulizia (President of Scientiae, Ca' Foscari University of Venice, Venice)

Matthijs Jonker (Utrecht University)

Sergio Orozco-Echeverri (Warburg Institute London)

Eleonora Sammarchi (University of Bern)

Vladimir Urbanek (Czech Academy of Sciences)

Local Committee Members

Gaye Danışan (Local Chair, Istanbul University)

Kaan Ata (Istanbul University)

Feray Coşkun (Özyeğin University)

Barışcan Ersöz (Istanbul University)

Florence Somer (SYRTE - Systèmes de Référence Temps-Espace, CNRS and Observatoire de Paris - Université PSL)

Kaan Üçsu (Istanbul University)

Secretariat

Kutsi Aybars Çetinalp (Istanbul Technical University)

Solmaz Ceren Özdemir (Independent Researcher)

Keynote Lecture

Allegorists, Alchemists and Iatrochemists in the Early Modern Ottoman Empire

Author: Feza Günergun[1]

1 *Professor Emerita of History of Science*

The Early Modern period of Europe is defined as the era spanning from the mid-15th to late 18th centuries. This periodization, however, does not correspond to a similar epoch in Ottoman history. Seated at the confluence of Southern Europe and Westerm Asia, the Ottoman Empire did not experience many of the decisive historical events that paved the way to the European Early Modern. In the domain of science, until the end of the 18th century, Ottomans relied on medieval Islamicate treatises produced in the scholarly centres of the East, by translating, compiling, copying and explicating customized texts. The Ottoman Early Modern commenced in the 17th century when European scientific / technical material was introduced to the Empire albeit with hesitance.

The interpretation and instruction of medieval scientific (i.e. astronomical and mathematical) texts fell upon the scholars of the medrese, the traditional institution of religious learning. As alchemy was excluded from the medrese curriculum, medrese members expressed interest in this field of teaching only exceptionally. Alchemy remained in the realm of the Sufi mystics or dervishes who were regarded as 'heterodox Muslims'. The motivation of Ottoman Sufis to engage with alchemy appears to be similar to that of their ideological forerunners: to excel as perfect human beings by spiritual purification. Al-Jildaki's (fl. 14th c. in Egypt) works describing numerous experiments, without renouncing his allegorical vision, were highly praised by Ottoman alchemists, especially by the Sufi mystic Ali Çelebi el-Izniki (d. 1607). His Mücerrebname includes numerous recipes, also attesting to his interest in practical alchemy. The Sufi physicians of the 17th and 18th centuries, heirs to alchemical literature accumulated by their masters, were drawn to European iatrochemical remedies and therapies. They sought to elaborate and disseminate this new knowledge by composing formularies in Ottoman Turkish. Sufi alchemical texts comparing the process of becoming an "ideal man"with the transformation of base metals into silver and gold, continued to be re-created through the 17th and 18th centuries. Although earlier Ottoman alchemical texts can be traced, in absence of patronage and against impediments of alchemical practice, Anatolian Sufis could hardly develop individual techniques and further their chemical knowledge akin to their peers in Early Modern Europe.

Keywords: Alchemy, dervishes, iatrochemistry, Ottoman Empire, Sufi physicians

Short Biography: Professor emerita of History of Science, Feza Günergun (born Baytop in Istanbul) is originally trained as a chemical engineer and holds a PhD in medical history from Istanbul University. She acted as Head of the Department of History of Science of Istanbul University from 2001 to 2023. She is the founder of the journal Osmanlı Bilimi Araştırmaları / Studies in Ottoman Science and was its chief-editor from 1995 to 2023. Günergun's research interests include, the transfer of modern sciences and techniques from Europe to Turkey (18th-20th c.), Turkish translations of science books, diffusion and popularization of scientific knowledge through journals, scientific instruments, science teaching in educational institutions, biographies of scientists. Günergun is an effective member of the International Academy of the History of Science and founding member of the Turkish Society for the History of Science, and was its secretary-general between 1991-2000. Among the books she co-edited are Introduction of Modern Science and Technology to Turkey and Japan (IRCJS, 1998, co-editor: S. Kuriyama), Science between Europe and Asia (Springer, 2011, co-editor: D. Raina), Seapower, Technology and Trade –Studies in Turkish Maritime History (Piri Reis University, 2014, co-editors: D. Couto and M.P. Pedani), Entre Trois Mers –Cartographie ottomane et française des Dardanelles et du Bosphore (Arkas, 2016, co-editor: J.-F. Pérouse), Scientific Instruments between East and West (Brill, 2019, co-editors: N. Brown, S. Ackermann). Günergun curated two exhibitions: Pursuing Knowledge – Scientific Instruments, Manuscripts and Prints form Istanbul University Collections (catalogue published in 2016) and Eduquer par l'Expérience: La Physique expérimentale au Lycée Saint-Joseph d'Istanbul (2023).

E-mail: fezagunergun@yahoo.com
Affiliation: Professor emerita of History of Science

Round Table – Translation of Scientific Texts into Ottoman Turkish in the Early Modern Era

Translation of Scientific Texts into Ottoman Turkish in the Early Modern Era

Authors: Ekmeleddin İhsanoğlu[1]; Kaan Üçsu[2]; Ahmet Tunç Şen[3]

1 *Professor Emeritus of History of Science, Honorary President of the Turkish Society for the History of Science*

2 *Istanbul University*

3 *Columbia University*

Throughout their six-century-long history, the Ottomans experienced two movements of translation: the first started in their early days and continued during the classical age (1300-1600). The second movement occurred during the modernization era until the end of the Ottoman rule. Both movements were mainly conducted by Ottoman scholars relying on their knowledge of languages. In the classical period, the Ottoman ulema were well-versed in three languages, Elsine-i Selase, i.e., Arabic, Turkish, and Persian. When it came to translation among these three languages, it was a smooth practice for them. In Ottoman madrasas, academic teaching focused on the Arabic language and rhetoric. Turkish was not part of the official instruction. Nonetheless, due to cohabitation among Turkish madrasa teachers and Turkish officials with Muslim Bosnians, Albanians, and other Muslims of Rumelia, the Turkish language spread among young madrasa graduates. The third language of Elsine-i Selase, i.e., Persian, was taught as a free course at the madrasas for any interested students. One way students studied Persian was by memorizing didactic poems in verse and then for those who liked to carry on further, they would read the poetry of the Great Persian Poets such as Hafez, Sa'di, Attar, and Jalal al-Din Rumi.

There was no urge to develop interest among the Ottoman ulema to learn European languages, partly because the scientific and scholarly legacy the Ottomans had inherited from the Seljukid and pre–Ottoman period was sufficient. The answers to the kinds of questions they had existed within the traditional Ottoman scientific learning. By contrast, during the early 17th century modernization period, when interest in European science grew, one of the significant challenges Ottoman scholars faced in the early years of modernization was how to learn European languages.

This plenary session will attempt to shed light on different aspects and ways this tradition was conducted.

Ekmeleddin İhsanoğlu will present an analytical overview of this process by touching upon pivotal intellectuals and works spanning from 14th to 18th centuries. His analysis will pave the way for two other speakers'presentations.

Tunç Şen will explore the role of "mülazims"—recent madrasa graduates or newly dismissed scholarly office-holders awaiting new appointments within the scholarly and judicial bureaucracy of the Empire—in translating Arabic and Persian scientific treatises into Ottoman Turkish in early modern times. By examining a broad range of translated works across diverse scientific disciplines, from medicine and ethics to astral sciences and others, he will investigate the motivations behind these translations, as well as their shortand long-term consequences.

Kaan Üçsu will investigate the translation activities that arose from the Ottomans'intensifying engagement with European science in the seventeenth century. Focusing on three pioneering intellectuals—Kâtip Çelebi, Hezarfen Hüseyin Efendi, and Ebu Bekir bin Behram ed-Dimaşkî—he will examine how translation functioned as a medium for transmitting, adapting, and reinterpreting scientific knowledge. By analyzing, in particular, Ebu Bekir Efendi's Ottoman rendering of Joan Blaeu's lavish Atlas Maior, he will explore the connections among these intellectuals, the motivations behind their work, their translation practices, and the role these efforts played in shaping Ottoman understandings of geography and science.

Keywords:

Short Biography:
E-mail: ihsanoglu.office@gmail.com
Affiliation: Professor Emeritus of History of Science, Honorary President of the Turkish Society for the History of Science

S.1.1. Staging Knowledge: Performance, Play and Cultural Adaptation

“This Under Globe”: Proprioceptive Worldmaking in Shakespeare’ s Public Theaters

Author: Adam Rzepka[1]

1 *Montclair State University*

My paper treats Shakespeare’s public theaters as microcosmic focal points for macrocosmic feeling. Specifically, I establish a relationship between the architecture of public theaters like Shakespeare’ s Globe, which was explicitly designed and named to reflect its representational scope, and the theatrical manipulation of its audiences’sense of proprioception—the sensation of weight, position, and motion in the body. I show how specific moments in Hamlet, King Lear, and The Tempest align these systems to position audiences in overlapping cosmī, including the globe of the earth.

This argument brings together current research in a range of disciplines, including new work on the dynamics of playgoing in theaters like the Globe, my ongoing research on the history of proprioception in early modern thought, and recent neurocognitive studies of vicarious somatosensation. In combination, these approaches suggest that early modern public performance was invested in fostering what I will call “cosmic feeling”or “global feeling”in its audiences: a visceral sense that they were pendant in radically extensive spheres that reached not only beyond the circle of the theater but far beyond the geographical limits of their knowledge.

Keywords: Shakespeare, theater, sciences of the soul, proprioception

Short Biography: Adam Rzepka is Associate Professor of English and Director of the English Graduate Program at Montclair State University, where he teaches early modern literature and critical theory. He holds a B.A. in English and Philosophy from Harvard University and a Ph.D. in English Language and Literature from the University of Chicago.
His research focuses on the soul as a dynamic system in early modern faculty psychology, and on the ways in which engagements with this system animated theatrical performance. His primary book project, Making Experience: Shakespeare and the Art of Immediacy, undertakes an archeology of “experience”as a rapidly changing concept in early modern discourse, and argues for Shakespeare’s theater as a key testing ground for its knowledge claims. Parts of this project have been published in Shakespeare Quarterly, Shakespeare Studies, and multiple edited volumes from Oxford University Press, Edinburgh University Press, and Palgrave.
A second book project, Anima: The Soul in Motion on Shakespeare’s Stage, argues for the emergent centrality of both internal and external motion in the early modern sciences of the soul, and shows how Shakespeare both drew on and contributed to this centrality in popular models of the liberated soul. Theoretical groundwork for this project has appeared recently in a special issue of Renaissance Drama and an edited volume from Routledge; the paper proposed above is part of that groundwork as well.
E-mail: rzepkaa@montclair.edu
Affiliation: Montclair State University (USA)

S.1.1. Staging Knowledge: Performance, Play and Cultural Adaptation

Cultural Encounters and Adaptations in the Late Seventeenth–Century Ottoman Empire: Theater, Portraiture, and Knowledge Transmission

Author: M. Fatih Çalışır[1]

1 *Istanbul University Institute for Islamic Studies*

The late seventeenth century witnessed a dynamic phase of cultural exchange between the Ottoman Empire and Europe, particularly in the realms of theater, portraiture, and intellectual engagement. European theatrical performances gained prominence in Ottoman diplomatic circles, with plays staged in Galata as early as 1612 and later at the French embassy in Istanbul. In 1675, efforts to introduce Venetian opera at the royal circumcision and wedding festival in Edirne reflected the empire's growing interest in European entertainment. Although logistical obstacles prevented the performers'arrival, Armenian and Turkish actors presented Persian style plays, showcasing the empire' s established theatrical traditions.

Portraiture similarly emerged as a significant medium of artistic exchange, with European-style depictions of Ottoman rulers, including Mehmed IV, circulating in diplomatic settings. Meanwhile, intellectual interactions with Europe intensified through figures such as Panayiotis Nikousios and Alexander Mavrocordatos, who facilitated the transmission of European works into Ottoman Turkish. Scientific knowledge also permeated Ottoman intellectual circles through scholars like the French orientalist Antoine Galland and the Italian physician Giovanni Mascellini, whose Latin medical treatise was published in Vienna in 1673.

This paper aims to highlight how these cultural exchanges were not instances of passive reception but rather processes of selective adaptation. By examining the transmission of artistic and intellectual traditions, this study demonstrates how the Ottoman elite actively engaged with European influences, integrating them into existing frameworks. This process of adaptation shaped the empire's evolving cultural and scientific landscape, demonstrating both receptivity and agency in knowledge transfer.

Keywords: Ottoman Empire, seventeenth-century, intellectual patronage, transmission of knowledge, early modernity

Short Biography: M. Fatih Çalışır, Ph.D., is a historian specializing in early modern Ottoman intellectual and environmental history. Currently a postdoctoral researcher at Harvard University's Center for Middle Eastern Studies under the TÜBİTAK 2219 Postdoctoral Research Fellowship Abroad, his research explores the intersections of Ottoman and European intellectual traditions in the early modern era.
Dr. Çalışır earned his Master of Arts from Bilkent University in 2009 and his Ph.D. from Georgetown University in 2016. Before pursuing his doctorate, he worked as an assistant specialist at the Turkish Ministry of Culture and Tourism, contributing to the preservation of cultural heritage at the Topkapı Palace Manuscripts Library and the Istanbul Museum of Islamic Science and Technology History.
Throughout his academic career, Çalışır has held various positions, including faculty roles at Ibn Haldun University (2017–2019) and Kırklareli University (2019–2023). Since February 2023, he has been a full-time faculty member at Istanbul University's Institute of Islamic Studies.
His scholarly contributions include a monograph on Mehmed I and several edited volumes, such as works on the era of Suleiman the Lawgiver (with Suraiya Faroqhi and M. Şakir Yılmaz), the history of the Turkish war industry (with A. Sefa Özkaya), and the Köprülü era in Ottoman history. He is also known for his translations of academic works on environmental history, Ottoman military history, and the Baburid Empire.
Dr. Çalışır is the founder of the Bilkent History Society and the Environmental History Society of Turkey. He also spearheaded the biennial Süleymaniye International Symposium, fostering scholarly exchange in historical studies.
E-mail: mfcalisir@istanbul.edu.tr
Affiliation: Istanbul University

S.1.1. Staging Knowledge: Performance, Play and Cultural Adaptation

Playing at the World: Students, Chess Knowledge, and Its Global Dimension

Author: Matthias Roick[1]

1 *Institute of Philosophy and Sociology, Polish Academy of Sciences*

The game of chess is a transnational and global phenomenon, with a long and complicated history of how knowledge of the game was transmitted, transformed, and translated. My paper will zoom in on one particular episode in the transmission of chess to the modern world. In 1604, Lucas Wielius, student at Strasbourg, dedicated a copy of his commented edition of Marco Girolamo Vida's Schacchia to Duke August the Younger of Braunschweig-Lüneburg. The copy with the handwritten dedication of Wielius and underlinings by Duke August is still preserved in the Herzog August Bibliothek in Wolfenbüttel. I will discuss three aspects: the special role played by students in the transmission of chess; the problems associated with the transfer of gaming know-how; and the transnational and global dimension of chess in an early modern perspective.

Keywords: Games, chess literature, student notes, knowledge transfer

Short Biography: Matthias Roick is currently postdoctoral fellow at the Centre for the History of Renaissance Knowledge of the Polish Acadamy of Sciences in Warsaw. He works within the framework of Prof. Valentina Lepri's ERC project "From East to West, and Back Again: Student Travel and Transcultural Knowledge Production in Renaissance Europe (c. 1470 – c. 1620)". After his PhD in European history at the EUI in Florence, he worked at the University of Göttingen. From 2014 to 2021, he was an affiliated fellow of the Lichtenberg Kolleg, Göttingen's Instititute for Advanced Studies, and Freigeist Fellow for the History of Ethics at the University of Göttingen. From 2022-2024, he worked as PASIFIC (MSC) Fellow on a project on early modern friendship. He is the author of Pontano's Virtues. Aristotelian Moral and Political Thought in the Renaissance (2017) and the co-editor of two recently published collected volumes, Teaching Ethics in Early Modern Universities, 1500-1700 (2021), together with Valentina Lepri and Danilo Facca, and Vera Amicitia. Classical Notions of Friendship in Renaissance Thought and Culture (2022), with Patrizia Piredda. Matthias has also widely published on different aspects of early modern ethics and virtue theory, including pieces on animal ethics, Petrarca's moral self-fashioning, the virtue of magnificence, and the relationship between literature, collection history, and ethics, and early modern game culture.
E-mail: matthias.roick@ifispan.edu.pl
Affiliation: Centre for the History of Renaissance Knowledge

S.1.2. Reading, Collecting, and Translating Medicine across Religious and Linguistic Boundaries – Board: BN06 / 78

The Ottoman Reception of Matthioli's De Materia Medica: Knowledge Transmission and Pharmacobotanical Adaptation

Author: Mustafa Yavuz[1]

1 *Istanbul Medeniyet University*

This study examines the reception of Pietro Andrea Matthioli's commentary on De Materia Medica in the Ottoman Empire, focusing on the 18th-century translation by Osman bin Abdurrahman, a translator based in Belgrade. De Materia Medica, originally authored by Pedanios Dioscorides in the first century CE, was a foundational text in pharmacobotany, influencing both Islamic and European medical traditions. Over centuries, the work was translated into Arabic, Latin, and later European languages, with Matthioli's 16th-century interpretation playing a crucial role in its dissemination.

The paper outlines Dioscorides' contributions to medical botany, highlighting his classification methods and the impact of his work on medieval and early modern pharmacology. It traces the transmission of Dioscorides' text from Greek to Arabic in the 9th-12th centuries, then to Latin and vernacular European languages in the Renaissance, culminating in Matthioli's influential commentary. The role of Ottoman intellectuals in this knowledge transfer is examined through Osman bin Abdurrahman' s 18th-century translation of Matthioli's text into Ottoman Turkish, marking a significant phase in the diffusion of pharmacological knowledge.

The study contextualizes this translation within the Ottoman "search for new medicine"period, analyzing how Ottoman scholars engaged with European medical advancements while maintaining connections to Islamic medical traditions. It also explores how Matthioli's visual and textual contributions, enriched by Ottoman botanical knowledge, facilitated the integration of Dioscorides'legacy into early modern Ottoman pharmacology.

By assessing manuscript evidence and tracing intellectual exchanges, the paper highlights the fluid and interconnected nature of scientific knowledge circulation across linguistic, cultural, and geographical boundaries. The case of De Materia Medica exemplifies how medical knowledge was adapted and transformed through centuries, demonstrating the dynamic interplay between translation, commentary, and scientific innovation.

Keywords: De Materia Medica, Pietro Andrea Matthioli, Ottoman pharmacobotany, knowledge transmission, medical translations

Short Biography: Assoc. Prof. Dr. Mustafa Yavuz is a faculty member in the Department of the History of Science at the Faculty of Arts and Sciences, İstanbul Medeniyet University. He obtained his undergraduate degree in 2001 from the Atatürk Faculty of Education at Marmara University. He completed his master' s degree at the Institute of Natural Sciences, Marmara University, with a thesis titled "A Taxonomic and Ecological Study on Lichens from the Pamukkale Region" and his PhD (2010) from the same program with a thesis titled "Lichen Flora of Gölcük Nature Park and Grading Isparta's Air Pollution via Lichens." Additionally, he earned a second PhD (2022) from the Graduate School of Social Sciences, İstanbul Medeniyet University, with a thesis titled "Plants with regard to the Kitab al-Nabat Tradition in the Islamic Philosophy-Science." Between 2002 and 2015, he worked as a teacher in various schools. His publications include Vekilharçtan Mektuplar (2020, Kadran Publishing, short stories), Biyolojiyi Benzersiz Kılan Nedir? (2022, Küre Publishing, translation), Tabiattan Tıbba Osmanlı'da Canlı Bilimleri (2024, Ketebe Publishing, edited volume), and Bitki Biliminin Kök(en)leri (2024, Ötüken Neşriyat, monograph). His articles on lichen taxonomy, ecology, bio-monitoring, the history of materia medica, botanical history, and the philosophy of biology have been published in national and international journals. In recent years, he has been organizing his work within the broader theme of the philosophy and history of life sciences, focusing on conceptual and theoretical frameworks.
E-mail: mustafay007@gmail.com
Affiliation: Istanbul Medeniyet University

S.1.2. Reading, Collecting, and Translating Medicine across Religious and Linguistic Boundaries

A Non-Muslim Source of Ottoman Medicine: The Case of Garshuni Manuscript in Mardin

Author: Kadir Çelik[1]

1 *Istanbul Medeniyet University and Izmır Ege University*

This study aims to analyze an anonymous Garshuni-Arabic medical manuscript, which refers to Arabic text written in Syriac script, cataloged by the Hill Manuscript Museum and Library under project number CFMM00557. Studies on Ottoman medicine have primarily focused on Muslim sources, while non-Muslim sources, such as Hebrew, Armenian, Greek, Syriac and Garshuni manuscripts, have yet to be recognized as significant contributions to Ottoman medical historiography. The Garshuni-Arabic manuscript examined in this study, dated 1754, is housed in the Church of the Forty Martyrs in Mardin. It encompasses a diverse range of materials, including folkloric, religious, and historical content, within the domains of medicine, anatomy, and pharmacology. The anonymous author of the work references not only Greek, Persian and Turkish sources, but also incorporates the knowledge of European and Ottoman scholars. The unique script, along with the Christian elements within the manuscript, highlights the distinct characteristics of the Anatolian Assyrians within the broader context of Ottoman and Mediterranean medicine. For this reason, our study aims to analyze this medical manuscript by an anonymous non-Muslim author, which offers valuable insights into the development of medicine in Anatolia and sheds light on the non-Muslim sources of Ottoman medicine, thereby contributing to a more comprehensive understanding of the field.

Keywords: Ottoman Medicine, Anatolian Assyrians, Garshuni medical manuscripts, iatrochemistry

Short Biography: Kadir Çelik is a researcher and research assistant at the Department of History, Faculty of Literature, Ege University. He completed his undergraduate studies in History at Istanbul 29 Mayıs University (2017-2022), where he developed a deep interest in the history of science and medicine. Currently, he is pursuing a master's degree in the History and Philosophy of Science at İstanbul Medeniyet University, where his research focuses on the circulation of medical knowledge in the Ottoman era, particularly in the context of non-Muslim communities. Supervised by Assoc. Prof. Mustafa Yavuz, Kadir's master's thesis, titled Domenico Auda'nın Breve Compendio di Maravigliosi Secreti Adlı Eserinin Garşûnî Tercümesi ve Osmanlı Lübnan'ında Tıbbi Bilginin Dolaşımı (The Garshuni Translation of Domenico Auda's Breve Compendio di Maravigliosi Secreti and the Circulation of Medical Knowledge in Ottoman Lebanon), was supported by TÜBİTAK (The Scientific and Technological Research Council of Turkey). The research examines the translation of the medical work by the Italian pharmacist (speziale) and "professor of secrets," Domenico Auda, into Garshuni Arabic by an anonymous Catholic Maronite translator. His thesis illuminates the interplay between various medical traditions in Ottoman Lebanon and provides new insights into the role of non-Muslim communities in the transmission of medical knowledge. His academic interests include the history of medicine, science and technology and with a particular focus on the Ottoman and Mediterranean worlds. Specifically, Çelik focuses on Garshuni medical manuscripts and non-Muslim contributions to Ottoman medical literature. His studies aim to integrate both Muslim and non-Muslim sources of Ottoman medicine contributing to a more nuanced understanding of the intellectual exchanges between different cultural and religious groups within the Ottoman Empire.

In addition to his research, Çelik is actively engaged in academic activities at Ege University, where he collaborates with historians, particularly those specializing in Ottoman and Islamic history. He also continues his research and collaboration with historians of science and medicine both in Turkey and internationally.

E-mail: kcelik820@gmail.com

Affiliation: Istanbul Medeniyet University and Izmır Ege University

S.1.2. Reading, Collecting, and Translating Medicine across Religious and Linguistic Boundaries – Board: BN08 / 57

What's in a Book Collector's Mind? Delving into the Renaissance Medical Library of Laurentius de Rubeis

Author: Dina Bacalexi[1]

1 *Centre national de la recherche scientifique*

In an era where erudite medical education was based mostly on bookish culture, and learned physicians were prominent educators, book collection and medical activity were interwoven. The collections, drawing on ancient (mainly Greek) and contemporary medical authorities, showcase the eagerness of humanist physicians for knowledge update and professional accuracy.

In this framework, as a continuation of our Scientiae 2024 presentation, we pursue the study of the (still mysterious) Laurentius de Rubeis'library: 317 books, mostly medical and of Jesuit provenance, printed between 1501 and the mid-17th cent., currently in the National Library in Rome. We will share our new findings on some important aspects of this library and place it in the ecosystem of humanistic medicine.

We will focus on the following:non-medical books; Rubeis'preferred Medieval and contemporary medical authors; Arabic medicine; books on obstetrics and "andrology"; samples of marginalia providing clues about the educational and professional utilization of these books and showing reading habits or controversies.

Even though Rubeis'identity has not yet been unveiled, we will share hypotheses about him and his possible interrelations with scholars, medical professionals and personalities in Rome, Italy and beyond. We will present the latest developments of the BUDE database featuring the place of this library in the networks that shaped early modern scholarly communities, and the Rubeis'virtual library in preparation.

Keywords: Renaissance, history of medicine, libraries, history of book

Short Biography: Dr. Dina Bacalexi
CNRS/École Normale Supérieure –UMR8230 "Centre Jean-Pépin", Villejuif, France E-mail: dina.bacalexi@cnrs.fr
Personal webpage: https://umr8230.cnrs.fr/en/members/constantina-dina-bacalexi/
Current position: senior research engineer. Research themes: Greek tragedy (my PhD), digital humanities, open science, and history of medicine, especially Greek medicine (Galen), its Renaissance reception, and the humanistic viewpoint on the Arabic Medieval period.
Since 2018: editor in chief of the BUDE database (Base Unique de Documentation Encyclopédique https://bude.univ-tours.fr./php/search.php), part of the network Europa Humanistica, dealing with text transmission from the late Middle Ages to the mid-17th cent.
2002-2014: co-director of L'Année Philologique, the reference international bibliographic database on Greek and Roman Antiquity.
2014: I launched a programme comparing the "Oriental"and "Occidental"reception of Greek medicine, with Mehrnaz Katouzian-Safadi (SPHERE-UMR 7219/CNRS and University Denis-Diderot) who specializes in Medieval Arabic and Persian medicine, mainly the physician and philosopher Rhazes (865-925), a reader of Galen.
2019-2021: qualified UNESCO expert (drafting the Open Science recommendation).
March 2020: keynote speaker in the international symposium on Open Science organized by the World Federation of Scientific Workers (WFSW, international scientific NGO in official partnership with UNESCO), in Marrakesh. [Canceled because of COVID19]
2022: I launched a project on humanistic networks and book circulation in Europe (15th-17th cent.), focusing on physicians'libraries.
April 2022: invited to the international seminar on History of medicine organized by Paris Sciences et Lettres University.
November 2022: invited to the international workshop "Open science, a landscape under construction with a horizon of possibilities", organized by the Centro Internacional de Encuentros Matemáticos and CNRS in Castro Urdiales (Spain).
July 2023: I coordinated the international symposium "Scientific cooperation as driver for peace and sustainable development", organized by WFSW in Évora (Portugal).
November 2024: invited to the international symposium "Open Science in the Arabic region", organized by the University Mohammed V of Rabat.
Teaching experience (2014-2020): Greek medicine and its reception.
2012-2021: elected to the French National Committee of Scientific Research.
2015-2019: appointed to the board of the High Council for Evaluation of Higher Education and Research, the French quality assurance agency.
Since 2021: elected to the Central Governing Board of CNRS.
List of works: https://hal.science/search/index/?q=authFullName_t%3Adina+bacalexi&rows=30&authIdPerson_i=11975
E-mail: dina.bacalexi@cnrs.fr
Affiliation: CNRS - Centre national de la recherche scientifique

S.1.3. Echoes of Antiquity: Myth, Philosophy, and the Stars in Early Modern Thought

Leopardi as a Byzantine Scholar, Translator of George Gemistos Plethon

Author: Giulia Beccaria[1]

1 *Italian Institute for Historical Studies – National and Kapodistrian University of Athens*

This paper focuses on Giacomo Leopardi as a translator of George Gemistos Plethon (1355–1452), whom Silvia Ronchey refers to as the "first true Italian Byzantine scholar."Plethon, described by Woodhouse as "the last of the Greeks", was a Byzantine Neoplatonic philosopher and the founder of the Academy of Mistra in the Peloponnese. His intellectual legacy inspired Cosimo de'Medici to establish the Florentine Platonic Academy. A prominent figure of his time, Plethon was not only a refined writer but also a scholar in grammar, mathematics, astronomy, theology, jurisprudence, and history. His work exemplifies one of the most compelling representations of late Byzantine humanistic thought. Following the fall of Constantinople, Plethon played a pivotal role in revitalizing Humanist and Renaissance thought in Europe, particularly in Italy.

The scholarly relationship between Leopardi and Byzantine civilization remains, however, largely underexplored. This paper aims to address this gap by offering an analysis of several key passages in Leopardi's work, with a focus on the remarkable endurance of the Greek language through the centuries. This longevity was largely due to the preservation and transmission of Greek language and culture by Byzantine scholars and philologists, who brought the intellectual legacy of Byzantium into the Renaissance and Humanism.

A central concern of this paper is the exploration of the stylistic motivations behind Leopardi's decision to translate Plethon's *Ἐπιτάφιος ἐπὶ Βασιλίσσῃ Ἑλένῃ Παλαιολογίνῃ* (*Orazione in morte della imperatrice Elena Paleologina*), preceded by his significant *Discorso in proposito di una orazione greca*, written between November 1826 and early January 1827 in Recanati. Leopardi was drawn to Plethon by the latter's elegant style and his complex, archaizing syntactic structures. This paper will examine the distinctive features of Leopardi's translation,identifying both affinities and divergences between the original text and its Italian rendering. A detailed analysis will be provided based on linguistic, textual, and stylistic annotations, comparing Plethon's *Ἐπιτάφιος* and Leopardi's translation (as found in the manuscript *Discorso in proposito d'un'orazione di Giorgio Gemisto Pletone e Volgarizzamento della medesima*, Paolina Leopardi's autograph with Giacomo's corrections, Biblioteca Nazionale di Napoli, Carte Leopardi, C.L. X.5.2ρ). Plethon emerged for Leopardi as a model of "solemn simplicity,"an ideal of prose style where modernity and antiquity converge—an aesthetic which Leopardi himself aspired to emulate.

Keywords: Giacomo Leopardi, Gemistos Plethon, translation, Byzantium, Renaissance, Byzantine civilization, Italian literature

Short Biography: BA in Classical Studies, University of Turin, 2015. Thesis title:"Un Epitteto a mio modo". Il Manuale di Epitteto e la traduzione di Giacomo Leopardi, supervisor: Prof. E.V. Maltese, grade: 110/110 with honors.
MA in Philology, Literature, and History of Antiquity, University of Turin, 2018. Thesis title: Francesco Patrizi da Cherso. La cultura delle Corti nel secondo Cinquecento. La traduzione italiana dello Stephanites kai Ichnelates nel ms. grecoY.-III.-6 della Biblioteca dell'Escorial, supervisor: Prof. E.V. Maltese, grade: 110/110 with honors.
PhD in Historical Sciences, University of San Marino, School of Advanced Historical Studies (Prof. L. Canfora), 2022. Thesis title: Storia, tradizione e ricezione del Barlaam e Ioasaf in Italia tra fine Quattrocento e Cinquecento, supervisor: Prof. S. Ronchey, grade: 60/60 with distinction for publication.
Currently a post-doctoral fellow at the Italian Institute for Historical Studies (Naples, supervisor: Prof. R. Librandi), working on a project in collaboration with the National and Kapodistrian University of Athens (Department of Italian Language and Literature, Prof. G. Zoras) on Giacomo Leopardi as a translator from Greek. The project focuses specifically on two texts that were part of Leopardi's initiative to rediscover and promote Greek and Byzantine prose of a moral and historical-moral nature: the Manual of Epictetus and the Oration on the Death of Empress Helena Palaeologina by George Gemistos Plethon.
In addition to several reviews and the editing of some dictionary entries ("TLIO", Accademia della Crusca), the following articles are noteworthy:

- «Un Epitteto a mio modo». Giacomo Leopardi e la traduzione del Manuale di Epitteto, «Lettere Italiane» [forthcoming]
- I testi a stampa del Barlaam e Ioasaf: fortuna e popolarità, «Rivista di letteratura comparata italiana, bizantina e neoellenica», 7, 2023, pp. 49-65
- Il Barlaam sulle scene: la Sacra Rappresentazione di Bernardo Pulci, «Critica letteraria», 196, 2022, pp. 634-652
- La biblioteca greca di Francesco Patrizi e le fonti di Del governo de'regni, «Studi e problemi di critica testuale», 100, 2020, pp. 103-141.

E-mail: giulibeccaria@gmail.com
Affiliation: Italian Institute for Historical Studies (Naples), University of Athens

S.1.3. Echoes of Antiquity: Myth, Philosophy, and the Stars in Early Modern Thought

Ascensio ad Deum, a Neoplatonic Program in Renaissance Disguise: The Reception of the Teachings of Ficino and Pico in H. C. Agrippa von Nettesheim's De Occulta Philosophia

Author: Monika Frazer-Imregh[1]

1 *Károli University*

H. C. Agrippa von Nettesheim's main work, *De occulta philosophia*, entered the history of thought in the 20th century as an encyclopedia of Renaissance magic. This is how D. P. Walker talks about it, who describes it in connection with the grouping of "spiritual"and "demonic"magic, Frances Yates, who mentions it when discussing the "new religion"of modern Hermeticism, Charles Nauert, who analyzes it by claiming the crisis of Renaissance thought, and finally Herman F. Kuhlov, who examined Agrippa's doctrine of ascension from the perspective of Lutheran theology. A new direction in research was indicated almost simultaneously in 1991 by Michael Keefer's study, which compared Agrippa's two most important works (DOP and *De incertitudine et vanitate scientiarum atque artium*) with reference to the "Hermetic rebirth", and in 1992 by Vittoria Perrone Compagni's introduction to the critical edition of *De occulta philosophia*, who, there and in her 2007 study, refuted the claim that Agrippa's main work was merely an encyclopedia of magic. She calls Agrippa a reformer of epistemology, magic, and the morals of her time, because she believes that Agrippa created a new epistemology by incorporating magic into the Christian religion. Following in the footsteps of Perrone Compagni, Noel Putnik continued his research into the intellectual structure of *De occulta philosophia*, representing this view. However, these investigations did not extend to the immediate philosophical antecedents whose reception can be clearly demonstrated in the work, namely the teachings of Marsilio Ficino and Giovanni Pico della Mirandola on man's ascent to God and ultimate bliss. In my presentation, I will trace the origins of this history of reception.

Keywords: Renaissance philosophy, Neoplatonism, ascension, Ficino, Pico, Agrippa

Short Biography: Monika Frazer-Imregh (1966–) is an associate professor at the Károli University in Budapest, where she teaches ancient Greek and Roman religious history, Latin, Renaissance and early modern cultural history. She has been the editor-in-Chief of the university journal Orpheus Noster for over ten years. https://www.ceeol.com/search/journal-detail?id=2173
Her research area is Neoplatonic and Italian Renaissance philosophy and she translates from Greek, Latin and Italian. She specialises in translating and researching the works of Ficino, Pico della Mirandola and Poliziano. Since 2001, volumes of her translations have been continuously published (Ficino's De amore, De vita libri tres; Pico's Heptaplus, Commenti alla Canzona d'amore di Benivieni; Poliziano's Epistulae, I–IV). In 2022, her monograph was published under the title Lifestyle, Astrology and Magic in the Renaissance. She has also co-translated Picatrix (2022) and Agrippa's De occulta philosophia (2024, pending publication).
E-mail: imreghmonika@gmail.com
Affiliation: Károli University

S.1.3. Echoes of Antiquity: Myth, Philosophy, and the Stars in Early Modern Thought

The Cycle of Seven Planets –Iconography and Applications

Author: Agata Starownik[1]

1 *University of Warsaw*

The paper will discuss the cycle of seven planetary deities, popular in 15th and 16th century prints. Iconographic variants of the motif represent different conventions, e.g. in orientalising, antikizing, modernising the appearance of planets. They are accompanied by a specific set of attributes, including signs of the zodiac or elements known from mythology. There are certain trends visible, depending on the specific period, but also some general, gradually changing trends in Renaissance culture. Both selected and all planets appear in various cultural texts, obviously, most often linked to astrology. These include self-contained graphic series, medical works, calendars, prognostications, astrology manuals, treatises on iconography, but also accounts of allegoric spectacles to celebrate a ruler or a carnival. These examples show the specificity of the presence of astrology in Early Modern culture: it permeated various spheres of life: entertainment, scholarly exploration of the mysteries of the world, everyday life, politics and power propaganda. However, the cycle of seven planets is not only a source for learning about astrological culture. It also points to the wide potential uses of mythological allegorical motifs, in this case linked to cosmic thought, but also deeply rooted in erudite humanist culture.

Keywords: Planets, astrology, Renaissance prints

Short Biography: Agata Starownik graduated in Polish Philology (2016) and Art History (2017) and earned her PhD in literary studies from the University of Warsaw (2023). She works at the Artes Liberales Faculty (University of Warsaw). Her research interests include astronomical and cosmic motifs in literature and art, as well as reception of the Bible in Early Modern culture.
GRANTS

- 2024 –contractor in project at The Institute of Literary Research of the Polish Academy of Sciences by National Humanities Development Program (the PI: prof. dr hab. Andrzej Dąbrówka): Dokończenie wydania sejmowego Dzieł wszystkich Jana Kochanowskiego [Completion of the Seym edition of the Complete Works of Jan Kochanowski]
- 2022–2026 –the PI of research project by National Science Centre: The Warsaw pageant of planets (1580) described by Martin Gruneweg –organization, genre and iconography of an Early Modern spectacle.

PUBLICATIONS (selected) Monographs

- Między nauką a mitem. Poetycka astronomia w twórczości Edwarda Stachury [Between Science and Myth. Poetic Astronomy in Edward Stachura's Works], Wydawnictwa UW: Warszawa 2021.

Articles

- Astronomy for the public. The 1580 Warsaw parade of planets in Martin Gruneweg's relation, in: Writing the Heavens. Celestial Observation in Medieval and Early Modern Literature, ed. Aura Heydenreich et al., de Gruyter: Berlin/Boston 2025.
- Dlaczego „z morza wszytki gwiazdy żyją"? O pewnym motywie astronomicznym u Jana Kochanowskiego, in: Obraz natury w kulturze intelektualnej, literackiej i artystycznej doby staropolskiej [Why Do "All the Stars from the Sea Live"? The Sources, Meanigns and Functions of the Sea Drinking Stars in Kochanowski's Poetry], ed. E. Buszewicz, J. Dąbkowska-Kujko, A. Jakóbczyk-Gola, A. Nowicka-Jeżowa, Wydawnictwa UW: Warszawa 2020.

E-mail: a.starownik@al.uw.edu.pl
Affiliation: University of Warsaw

S.2.1. The Interaction of Knowledge, Collections, and Instruments: From Encyclopedic Arrangements to Astronomical Simulations

Instruments of Insight: Revealing the Tangible Dialogue Between Books and Instruments in Libraries

Author: Samuel Gessner[1]

1 *CIUHCT, University of Lisbon*

While libraries are celebrated as havens of textual knowledge, they often also house a surprising array of instruments—from paper tools like volvelles embedded in books to robust three-dimensional objects such as globes, astrolabes, and sundials. This presentation serves as an open call to the scholarly community to remain vigilant in uncovering these hidden presences—whether encountered in actual collections, catalogues, or even in the idealized conception of libraries. By spotlighting examples from institutions like the Laurenziana in Florence and the library of D. Teodósio in Vila Viçosa, the talk will explore pressing questions: Why do instruments appear in library contexts, and in what ways do they complement or transform the role of books? How does their interplay reflect broader practices of knowledge in the early modern era? Ultimately, the talk aims to ignite an inquiry on the multifaceted dialogue between texts and instruments in libraries.

Keywords: Mathematical instruments, library collections, volvelles, knowledge practices, material culture of knowledge, scholarly cabinets

Short Biography: Samuel Gessner is an assistant researcher at the CIUHCT in Lisbon, invited professor at the Department of History and Philosophy of Science at ULisboa, and the book review editor of the journal HoST. He specializes in the study of the material culture of science. In his current project Cultures of Mathematics, he focuses on the diverse mathematical cultures in medieval and early modern Europe and how they interacted by studying the role of mathematical instruments as conceived by both theoreticians and practitioners. Alongside textual documents he uses artefacts of material culture, in particular mathematical and astronomical instruments, as primary sources and as the starting points for research. He recently published “Multiple Meanings of Precision”in the Annals of Science (vol. 81, no. 1-2, 2024, p. 30-59). His latest edited volume, in co-editorship with Nikolaj Bijleveld and Arjen Dijkstra, is Devotees of Science. Cultivating and Communicating Natural and Technical Knowledge around 1800, Amsterdam University Press (2025). He is co-organizer with Rossella Baldi of the upcoming conference Beyond Books: Instruments and Knowledge in Libraries, at the Musée d’Histoire des Sciences, Geneva, 14-15 January 2026.
E-mail: samuel.gessner@gmail.com
Affiliation: CIUHCT, University of Lisbon

S.2.1. The Interaction of Knowledge, Collections, and Instruments: From Encyclopedic Arrangements to Astronomical Simulations

Simulating Lunar Motions: Gıyās ed-Din Ibn Fath-Allah al-Kātib al-Baghdādī's Heart-Shaped Diagram in the Context of Ottoman Volvelles

Author: Gaye Danışan[1]

1 *Istanbul University*

This study explores the role of volvelles in Ottoman astronomy, focusing on Gıyās ed-Din Ibn FathAllah al-Kātib al-Baghdādī's heart-shaped figure within a circular diagram in *Ta'rīb Tāj al-Madākhil fī ʿIlm al-Nujūm*. Until now, Ottoman volvelles have primarily been encountered in practical works, such as calendars, with available information mainly limited to their usage. However, al-Baghdādī's heart-shaped diagram appears to function as an intermediate layer of a volvelle, aiding in the simulation of various aspects of lunar motion—including the phases of the Moon, the Moon's distance from the Sun, solar eclipses, and lunar eclipses—thus offering a deeper perspective on the theoretical foundations of volvelles used in 16th and 17th-century Ottoman astronomy.

Although the origins of the Ottoman volvelle tradition remain insufficiently documented, al-Baghdādī' s theoretical explanations provide valuable insights into their design's symbolism and astronomical functions. By situating this diagram within the broader context of Ottoman astronomical practices, this study sheds light on the symbolic and scientific roles of Ottoman volvelles and enhances our understanding of paper instruments in Ottoman astronomy.

Keywords: Paper instruments, Ottoman volvelles, lunar motions, heart-shaped diagram, 16th-17th centuries

Short Biography: Gaye Danışan is a member of the Department of the History of Science at Istanbul University. Her research focuses on various aspects of Ottoman astronomy, including calendars, portable astronomical instruments, volvelles, navigation, astrology, and astrometeorology.
She earned her Bachelor's (2005) and Master's (2009) degrees in Astronomy and Space Sciences from Istanbul University and completed her PhD in the History of Science at the same institution in 2016, with a dissertation titled "Ottoman Nautical Astronomy and Astronomical Instruments in the 16th Century." Danışan's academic experience includes postdoctoral research at the History of Science Museum, Oxford University (2017-2018), where she worked on the project "Ottoman Portable Astronomical Instruments and Their Use: A Comparative Study for the 16th Century," funded by the TUBITAK-2219 program. She also led a research project titled "Paper Instruments in the History of Ottoman Astronomy," funded by the Scientific Instrument Society (SIS) from 2017 to 2020, and directed the TUBITAK-1003 project on "Theoretical and Practical Aspects of Scientific Activities in the Ottoman Empire: Annual and Perpetual Calendars (1550-1710)" from 2020 to 2022.
Currently, she is leading the research project, Portable Astronomical Instruments: The Processes of Adaptation and Diffusion of Medieval Islamic and Early Modern European Examples in Ottoman Geography (1500-1700), funded by the Turkish Academy of Sciences—Outstanding Young Scientists Awards Program (TUBA-GEBIP).
E-mail: gayedanisan@gmail.com
Affiliation: Istanbul University

S.2.1. The Interaction of Knowledge, Collections, and Instruments: From Encyclopedic Arrangements to Astronomical Simulations

The Encyclopedic Nature of the Collection of Kunstkammer of Emperor Rudolf II in Prague

Authors: Jindra Kubickova[1]; Zuzana Vařáková[2]

1 *Charles University*

2 *Charles University*

During the late 16th century, collecting became an increasingly significant element in the pursuit of understanding nature (e.g.: Findlen 1994; Bredekamp 1995; Daston, Park 1998; Findlen 2006). The Kunstkammer of Emperor Rudolf II constituted one of the most valuable collections of its kind in Renaissance Europe, and as evidenced by its preserved inventories, was characterized by a considerable variety of collected items. These may also serve as evidence of the interconnectedness of the court of Rudolf II with distant and exotic regions, cultures and other similar collections.

Given the study collection purpose of the Kunstkammer, the presented paper aims to enrich the existing research of the Rudolfian collection by broadening the perspective to include the history of science and to take into an account the collection's encyclopedic nature. To this end, the paper will present and examine the results of a data analysis of the Rudolfian inventory written between 1607–1611 with regard to the composition, organization and classification of its objects. Finally, the paper will discuss the extent to which the categorization of collected items corresponds with the assumed pivotal role of these collections in establishing modern scientific inquiry.

Keywords: Kunstkammer, Rudolf II, encyclopaedism, history of science, digital humanities

Short Biography: Jindra Kubickova completed her Master's degree in Art History at the Academy of Arts, Architecture and Design in Prague. She is currently a PhD candidate at the Department of Philosophy and History of Science at Charles University in Prague. In her PhD thesis, she focuses on the encyclopedic nature of the collection of Kunstkammer of Emperor Rudolf II from the perspective of its organization, early modern knowledge and perception of nature.
She is the principal investigator of a grant project, founded by the Grant Agency of Charles University (GA UK) which aims to analyze the Rudolfian inventory of Kunstkammer (1607-1611) while using the tools of digital humanities.
Since 2023 she participates in the ERC grant titled The Origins of Modern Encyclopaedism: Launching Evolutionary Metaphorology (TOME) at the Institute of Philosophy, Czech Academy of Sciences. Within TOME, she is assembling and pre-processing the digital corpus of sixteenthand seventeenthcentury alchemical and Paracelsian prints. She served as the data curator of a recently published dataset: Hedesan, G., Huber, A., Kodetová, J., Kříž, O., Kubíčková, J., Kaše, V., & Pavlas, P. (2025). EMLAP (v0.4) [Data set]. Zenodo. https://doi.org/10.5281/zenodo.14765294.
Her main research interests range from early modern natural collections, renaissance visual and intellectual culture, to media archaeology and contemporary art. Through her research projects, she attempts to examine the academic potentials and challenges of intersections between art history, history and philosophy of science and digital humanities. Since 2022 she also works as a curator and educator at Kunsthalle Praha.
Zuzana Vařáková received both her Bachelor's and Master's degree in History, specializing in Czech History from the Faculty of Arts, Charles University in Prague. She also studied Anglo-American Studies and received a Bachelor's degree for her thesis on corpus analysis of medieval and early modern corpora. She is currently pursuing her PhD degree at the Department of Philosophy and History of Science, Faculty of Science, Charles University. Her main research interest is medieval zoology with a focus on ancient and medieval zoological works, medieval encylopedism and symbolism. Her PhD thesis focuses on the reception of a selected corpus of zoological treatises in medieval and early modern Bohemia.
She is currently working at the Institute of History of the Czech Academy of Sciences as a PhD student and assistant of the Institute of History Press. On the basis of this opportunity, she is the principal investigator of a Strategy AV 21 project Zoononses in the Past and Present: Diseases –Animals –People, in close collaboration with the Institute of Vertebrate Biology of the CAS. She is also a team member of the Grant Agency of Charles University The Collection of Kunstkammer of Rudolf II as an Image of Early Modern Knowledge of Nature, which aims to analyze the inventory of the Rudolfian Kunstkammer (1607–1611) using the methodology of digital humanities and to contextualize it within contemporary science and encyclopedic knowledge.
E-mail: jinves@seznam.cz
Affiliation: Charles University

P.2.1. The Concept of the Sciences in Bernard de Fontenelle's Philosophy

The Concept of the Sciences in Bernard de Fontenelle's Philosophy

Authors: Daniel Špelda[1]; Eszter Kovács[2]; Dagmar Pichová[3]

1 *Masaryk University*

2 *Vrije Universiteit Brussel*

3 *Masaryk University Brno*

Description of the panel:

We focus on texts by Bernard Le Bovier de Fontenelle (1657–1757), secretary of the Académie royale des sciences, who published the annual yearbooks Histoire de l'Académie royale des sciences (HMARS, 1699-1740) summarising the activities of the Académie. These handbooks contained articles by academics, Fontenelle's summaries of the articles, and Fontenelle's eulogies (Éloges des académiciens) for academics who had died that year. In our panel, we focus on the various ways Fontenelle explained scientific research at the Académie and on selected aspects of its reception. First, we address the strategy that Fontenelle used for legitimating scientific research in a society that based its education on Greek and Roman literature. Second, we pay attention to the way Fontenelle represented the lives of academics, their importance in the history of science, and their moral virtues. Thirdly, we describe Fontenelle's conception of the history of the sciences, the mechanisms of their progress, the appreciation of the role of individual scientists –and the reception of this conception by Marquise du Châtelet. These themes intersect in our three papers, and we hope contribute to a better understanding of the significance of Fontenelle's work and its influence on later representatives of the Enlightenment.

Presenter: Daniel Špelda

Title of the paper: Bernard de Fontenelle's Histoire de l'Académie royale (1699-1714): Science Pulls Back the Veil of Nature

Between 1699 and 1740, Bernard de Fontenelle prepared an annual Histoire de l'Académie royale des sciences (HARS), in which he tried to explain the nature of scientific research to his contemporaries, who were educated in classical literature. Fontenelle liked to refer to the metaphor of a mysterious Nature hidden behind a veil –the veil of Isis. The metaphor served him as a means of articulating and describing the epistemological problems that the members of the Académie des sciences faced in their research. The personified Nature served as an antagonist to the personified Académie: sometimes the uncovering of Nature's secrets turned into a hunt and a chase; at other times Nature flirtatiously winked at the academics. Focusing on HARS volumes 1699-1714, I argue that Fontenelle used the metaphor to explain to the public the epistemological challenges academics faced in learning about nature. I further assert that the culmination of Fontenelle's intelligent work with metaphor was its incorporation into an overall philosophy of history that understood the history of humankind as a gradual progression of human knowledge from fables to modern sciences. According to this philosophy, no one could further question the legitimacy of the sciences because they represented the necessary and logical outcome of a long development that began in ancient Greece.

Presenter: Dagmar Pichová

Title of the paper: The Deaths of Academicians in Fontenelle's Éloges des académiciens

In his Éloges des académiciens, French philosopher and secretary of Académie des sciences Bernard le Bovier de Fontenelle employed various strategies to build the credibility of scientists, promote scientific institutions, and justify scientific research in general. The Éloges des académiciens highlighted personal qualities that enabled scientists to develop, share, and apply their knowledge, emphasising their ability to explain discoveries in simple terms and engage in scientific debate with openness, modesty, and peacefulness.

Fontenelle chronologically recounted the lives of academicians, including their physical and mental conditions and ultimately, their deaths. In my paper, I examine the role of the "good death"in shaping the new scientific persona in Fontenelle's Éloges des académiciens. I hold that the depiction of the deaths of academicians coheres with the persona of scientists and the virtues Fontenelle attributed to them, reflecting an implicit ethical perspective.

Presenter: Eszter Kovács

Title of the paper: Giants in a Scientific Battlefield: Du Châtelet's Annotations on Academic Eulogies

Two series of miscellaneous manuscript notes prove the interest that Émilie Du Châtelet took in the genre of the academic eulogy. One of them is currently housed among Voltaire's manuscripts in Saint Petersburg; it was first published by I.O. Wade in 1958. These notes were recently republished by the

Center for the History of Women Philosophers and Scientists (see https://stp.historyofwomenphilosophers.org

/documents/). The other series figures in one of Du Châtelet's notebooks found in 2010 (currently in a private collection); it has not been published. The second series contains excerpts from academic eulogies interspersed with Du Châtelet's reflections on the laws of motion.

As I aim to show, this material can be considered more than simple working notes. The eulogies, in which Fontenelle excelled as the perpetual secretary of the Academy, were important sources for Du Châtelet's scientific activity while seeking her own methodology. Du Châtelet respects intellectual giants in the spirit of the image nanos gigentum humeris insidentes (see the Preface to the Foundations of Physics, 1740) but she also regards national impartiality and open dialogue as necessary conditions to scientific progress.

The theory of universal attraction is the real focus of her annotations. Several of her remarks point to Fontenelle's refusal to admit Newton's discoveries because of the French academic loyalty to Cartesian vortex theory. A study of these notes shows that Du Châtelet believed in scientific progress as a continuous development and also –and more importantly –as a change of paradigm. Her annotations on the eulogies can thus be interpreted as a more polemical first approach, nuanced in the Preface to the Foundations.

Keywords: Bernard de Fontenelle, Émilie Du Châtelet, Académie royale des sciences, early modern science

Short Biography: Daniel Špelda, spelda@phil.muni.cz Daniel Špelda is a professor at the Department of Philosophy, Masaryk University in Brno. For many years he has been interested in the historical self-reflection of early modern science and philosophy, the idea of scientific progress, and the work of Bernard de Fontenelle. He recently published the monograph The Origins of the Idea of Scientific Progress: Bernard de Fontenelle and His Contemporaries (Springer 2024). In collaboration with other colleagues, he has published five volumes of annotated translations of the works of G. Galilei, I. Newton, J. Kepler, J. Bernoulli, and B. de Fontenelle (2019). He also wrote the preface to the collection of Fontenelle's philosophical texts as translated into Czech by Dagmar Pichová (2024). His more recent articles include 'The Concept of Scientific Curiosity in Histoire de l'Académie royale des sciences (1699-1710)'(Early Modern French Studies, 2024 and 'Collective Empiricism at the Paris Observatoire in the Late Seventeenth Century'(The seventeenth century, 2022).
Dagmar Pichová, pichova@phil.muni.cz Dagmar Pichová is an Associate Professor at the Department of Philosophy, Masaryk University in Brno. She earned her Ph.D. at Masaryk University and Université Paris XII (co-tutelle) in 2006. As a Fulbright grant holder, she spent three months as a visiting scholar at the Department of Philosophy at Harvard University (2024). In her scientific and research activities, she focuses on the history of women philosophers and eighteenth-century French philosophy and literature. She is the author of 'Fontenelle's Éloges des académiciens: Creating the Scientific Persona', in Filozofia, vol. 79, n° 10 (2024); Czech Women Philosophers and Scientists (with Zdeňka Jastrzembská and Jan Zouhar, 2021); Émilie Du Châtelet, femme de lettres (2018); "Émilie Du Châtelet: devenir femme de lettres", in La condition des femmes dans l'Europe du XVIIIe siècle, Lumières, n° 24 (2015); 100 myšlenkových experimentů ve filozofii/100 Thought Experiments in Philosophy (with Marek Picha, 2013); and La communication ironique dans Le Roman comique de Paul Scarron. Étude comparative avec Don Quichotte de Cervantès (2007). She translated Le Discours sur le bonheur by Émilie Du Châtelet (2016), Les Entretiens sur la pluralité des mondes by Fontenelle (2019), and selected Éloges des académiciens by Fontenelle (2024) from French to Czech.
Eszter Kovács, Eszter.Kovacs@vub.be or esztkovacs77@gmail.com Eszter Kovács is a postdoctoral research fellow in the ERC StG project VERITRACE at the Vrije Universiteit Brussel. She earned her Ph.D. in French literature in 2008, under joint supervision at the École normale supérieure de Lyon and at the University of Szeged. A revised publication of her thesis was entitled La Critique du voyage dans la pensée de Diderot: De la fiction au discours philosophique et politique (Paris, Honoré Champion, 2015). In 2024, she earned a second Ph.D. in philosophy at the Eötvös Loránd University (Budapest) with her thesis entitled Early Modern Female Conceptions of Freedom: Anne Conway, Mary Astell, Émilie Du Châtelet. Her major publications on the philosophy of Du Châtelet include "Fontenelle and Émilie Du Châtelet: savants et philosophes médiateurs"(La Lettre clandestine, no 28, 2020, p. 299–312), "La liberté est la santé de l'âme: du pouvoir soi-mouvant au culte de la liberté chez Émilie Du Châtelet"(In A. Brown, U. Kölving (eds.), Émilie Du Châtelet: son monde, ses travaux (FerneyVoltaire, CIEDS, 2022, p. 291–301), and "Les manuscrits d'Émilie Du Châtelet, preuves de l'originalité d'une pensée"(Revue philosophique de Louvain, no 120, 2023, p. 385–406). Her current research interests include the formation of early modern metaphysical and scientific terminology.
Affiliation: Masaryk University, Brno, Czech Republic
E-mail: spelda@phil.muni.cz

S.2.2. Text and Transmission: Interpretive Practices and Scholarly Networks in Early Modern Europe

Rooted or Planted? The Power of Etymology in J. A. Comenius and Early Modern Culture of Knowledge

Author: Lenka Řezníková[1]

1 *Institute of Philosphy, Czech Academy of Sciences*

Etymology is often regarded as a branch of linguistics that explores the historical origins of words by tracing their sound changes. However, in the early modern period, etymology was a strongly presentist concept deeply connected to knowledge. Scholars searched for the supposed original meanings to uncover hidden truths, recover ancient wisdom, and reaffirm divine revelation. In many fields of knowledge, the allegedly original semantics of words served to legitimise intellectual constructs and theoretical frameworks. Etymology was a specific "Denkform" (E. R. Curtius) in which language was not just a medium of communication but a source of inherent meaning shaped by divine will or natural order. In my paper, I will analyse how John Amos Comenius, a member of Samuel Hartlibs' correspondence network, employed etymology, distinguishing its functions as a tool of thinking, a means of legitimisation, and an instrument of scholarly self-fashioning. I will explore how etymology structured his conceptual framework, reinforced the authority of his definitions and how it functioned as a demonstration of his erudition, particularly his command of Greek.

Keywords: Early modern knowledge, etymology, Johann Amos Comenius, language

Short Biography: Mgr. Lenka Řezníková, PhD is a research fellow at the Academy of Sciences of the Czech Republic, Institute of Philosophy. She majored in history and classical philology at the University of Prague. At the same facility, she completed her doctoral thesis. In her research, she focuses on early modern and pre-modern intellectual history. Operating at the intersection between history, literary history and philosophy, she is particularly interested in the history of historical thinking, early modern epistemology, and the relations between textuality and thinking. She also participates in the edition of Comenius's writings DJAK/Opera Omnia. She is the author of a number of articles and several books related to the above topics. Recently, she published two books on early modern epistemology: Ad majorem evidentiam: Literary Representations of the Obviousness in the Work of J. A. Comenius (Prague 2018); and Historiam videre. Testimony, Experience and Empirical Evidence in the Historiography of the Unity of Brethren 1600–1660 (Prague 2024), both in Czech.
She was a principal researcher and a research team member in various projects in the Czech Republic and Germany. Currently, she participates in the ERC CZ project The Origins of Modern Encyclopaedism (TOME): Launching Evolutionary Metaphorology, which adopts computational approaches and distant reading techniques to explore the role of cognitive metaphors in the early modern encyclopaedism, and in the project Manuscript Practices and the Textuality of Exile Communities from the Czech Lands in the 1620s and 1630s, which studies the role of manuscript practices and manuscript circulation in the establishment of Bohemian and Moravian non-Catholic communities in exile centers in Central Europe in the 1620s–1630s.
For further details and a bibliography, see https://komeniologie.flu.cas.cz/···h-d.
E-mail: reznikova@flu.cas.cz
Affiliation: Institute of Philosophy, Czech Academy of Sciences, Prague

S.2.2. Text and Transmission: Interpretive Practices and Scholarly Networks in Early Modern Europe – Board: BN17 / **61**

News and Prophecy Between Upper Hungary and Amsterdam: Mikuláš Drabík, Jan Amos Comenius and Learned Communication

Author: Vladimír Urbánek[1]

1 *Institute of Philosophy, Czech Academy of Sciences*

This paper focuses on textual practices related to the creation, communication and circulation of mid-seventeenth-century prophetic texts. They have been studied as tools of political propaganda during the Thirty Years War, in relation to apocalyptic discourses and to biographies of individual actors, including one of the most active promoters and disseminators of early modern prophecies, educational reformer and theologian Jan Amos Comenius (1592-1670). The paper offers a new interpretative perspective by analyzing the transfer and circulation of prophetic texts originally written in Czech in the exiled community of Bohemian Brethren as a specific case of cultural translation across geographical, linguistic and social boundaries. Comenius'communication network made it possible to connect local communities in Upper Hungary with Dutch and English centers of information and knowledge. The paper shows how prophecies and visions of Mikuláš Drabík from Upper Hungary were received by local networks of supporters and opponents, and how they became a topic of learned discussion within the international network of scholars in Amsterdam and London. An attempt to translate and adapt them to the Muslim environment in East-Central Europe in order to convert the Turks predictably failed. The causes of this limited transcultural adaptability of prophecy are also discussed.

Keywords: Early modern prophecy, communication network, cultural translation, Upper Hungary, Amsterdam

Short Biography: PhDr. Vladimír Urbánek, Ph.D. is a senior researcher at the Department of Comenius Studies and Early Modern Intellectual History, Institute of Philosophy, Czech Academy of Sciences in Prague, where he served between 2012 and 2021 as a head of the department. He teaches at the Charles University in Prague (2000-2011, 2023-25) and taught at Tokyo University of Foreign Studies (2007). His research interests focus on early modern millenarianism, scholarly communication and correspondence networks, Protestant intellectuals exiled from the Czech lands after 1620 and life and work of Jan Amos Comenius. He was a coordinator of the Czech participation in the COST Action Project 'Reassembling the Republic of Letters, 1500-1800'(2014–18). He was a co-investigator and leader of the team of the Institute of Philosophy participating in a grant project: 'Between Renaissance and Baroque: Philosophy and Knowledge in the Czech Lands within the Wider European Context'financed by the Czech Science Foundation (2014–18). He is an editor-in-chief of the journal Acta Comeniana and a PI of the project 'Network of Letters (NETLET) –The correspondence of intellectual elites in turbulent times of Bohemian/Czech history from the digital perspective'(2023-27). He was co-organizer of the Scientiae 2023 conference in Prague. Among other publications, he authored a monograph Eschatologie, vědění a politika: Příspěvek k dějinám myšlení pobělohorského exilu [Eschatology, Knowledge and Politics: On the Intellectual History of the Post-White-Mountain Bohemian Exiles] (České Budějovice, 2008), and edited and co-authored annotations of three volumes of the critical edition J. A. Comenii Opera Omnia (2013, 2018, 2024). His latest publications include the articles 'Historia Persecutionum Ecclesiae Bohemicae between History, Identity and Martyrology,'in Archiv für Reformationsgeschichte vol. 114 (2023) and 'Conceptualizing History in Pavel Skála's "Church Chronology": Encyclopaedic Approach and Eschatological Framework,'in Listy filologické vol. 147 (2024).
E-mail: urbanek@flu.cas.cz
Affiliation: Institute of Philosophy, Czech Academy of Sciences, Prague

S.2.2. Text and Transmission: Interpretive Practices and Scholarly Networks in Early Modern Europe – Board: BN18 / 68

Early Critics of the Rosicrucian Manifestos: Budovec and Libavius

Author: Jiri Michalik[1]

1 *Palacky University*

The Lutheran physician and alchemist Andreas Libavius is known as one of the first critics of the Rosicrucian manifestos. However, his criticism has received little analysis to date. The Czech Brethren theologian, politician and religious scholar Václav Budovec of Budov has also written critically on the reception of the Rosicrucian manifestos. Budovec's criticism has not yet been systematically studied and analysed. Both Libavius' and Budovec's criticism were published around the same time and are based on analogous positions. The basis of their criticism is a religiously informed attack on the theology of the Rosicrucian brotherhood, and the argumentation of both critics is similar regardless of denominational differences.

The paper compares the critiques of the two scholars, tracing the basic structural elements of both critiques. Libavius' critique is longer and more systematic, while Budovec's, on the other hand, exhibits original elements not found in any other critique of the Rosicrucian manifestos. The aim of the paper is to identify and analyze the intellectual patterns that lie behind both critiques. This will enable a better understanding of how the critical reception of the Rosicrucian manifestos took place in Central Europe between 1614 and 1616.

Keywords: Andreas Libavius, Václav Budovec of Budov, Rosicrucian manifestoes, critical reception of Rosicrucianism

Short Biography: Jiří Michalík's research focuses on the history of late Renaissance and early modern philosophy and science. He graduated from Palacký University in Olomouc and spent study stays at the universities of Konstanz and Regensburg. He has worked as a researcher at the Centre for Work with Patristic, Medieval and Renaissance Texts and in the project Between Renaissance and Baroque: Philosophy and Knowledge in the Czech Lands and their wider European context. He is currently an external lecturer at Palacký University in Olomouc and a lecturer at the Military Academy in Vyškov. His research interests include Robert Fludd and Johannes Kepler. In his latest book "The Astronomer in Hermes' Garden. Johannes Kepler and Paracelsian Alchemy", he studied the influence of contemporary alchemical texts on the thought of Johannes Kepler.
E-mail: jiri.mchalik@seznam.cz
Affiliation: Palacky University, Olomouc

P.2.2. Making Science Global: Examples from Mesmerism and Newtonianism

Gottfried Kirch's Observational Journals (1677–1710) and the Secrets of Early Modern Astronomical Observations

Author: Justyna Rogińska[1]

1 *Institute for the History of Science of the Polish Academy of Sciences*

Gottfried Kirch (1639–1710), a German astronomer, calendar-maker, and author of ephemerides, kept observational journals throughout his astronomical career. In these journals, he documented astronomical, meteorological, and occasionally magnetic observations. Kirch's observational journals, written between 1677 and 1710, are preserved in the collections of the Paris Observatory Library and the Archive of the Berlin-Brandenburg Academy of Sciences. The paper aims to explore these sources by examining their history, structure, and Kirch's note-taking methods. The proposed study investigates their significance for astronomical and meteorological research, their value in biographical studies, and their role in reconstructing the work of astronomers and their families in the late 17th and early 18th centuries.

Keywords: Astronomy, meteorology, observational journals

Short Biography: Justyna Rogińska is Assistant Professor at the Institute for the History of Science of the Polish Academy of Sciences in Warsaw. She holds a PhD in the Humanities with a specialization in History. Her research focuses on the astronomical, meteorological, and calendariographical work of the Kirch family. In 2016, she was awarded a DAAD Research Grant to examine sources from the Archive of the BerlinBrandenburg Academy of Sciences and Humanities. This research explored the Kirch family's relationship with the Royal Prussian Society of Sciences during the first half of the 18th century.
E-mail: justynaroginska3@wp.pl
Affiliation: Institute for the History of Science PAS

P.2.2. Making Science Global: Examples from Mesmerism and Newtonianism

Sobieski Moves the Sun. Poems Dedicated to King Jan III of Poland by Johannes Hevelius's Correspondents

Author: Maciej Jasiński[1]

1 *Institute for the History of Science, Polish Academy of Sciences*

In 1684, Johannes Hevelius, an astronomer from Gdańsk, honored Jan III Sobieski, the King of Poland, by naming a new constellation *Scutum Sobiescianum* –after the King's coat of arms. This fact was commemorated at that time in several poems which can be found in the collection of Hevelius's astronomical correspondence. They are examples of non-scientific endeavors originating from astronomical studies.

Poems, preserved both in manuscripts and as published pamphlets, were authored mostly by people from Gdańsk. Among their authors, there were notable individuals with whom Hevelius corresponded (e.g. Michał Antoni Hacki, the Abbot of the Oliwa Monastery near Gdańsk), the astronomer's learned colleagues (e.g. Adam Adamandus Kochański, a Jesuit mathematician), and professional poets (e.g. Johann Peter Titius (Titz), the professor of poetry at the *gymnasium academicum* in Gdańsk). They praise –in varying degrees –the King and his constellation, and the astronomer who proposed it.

In my paper, I will discuss the poems and their function in the corpus of Hevelius's letters. I will attempt to determine their role in the astronomer's pursuit of royal patronage. I will analyze the literary tropes in these works, the extent of astronomical knowledge they contain, and how the former relate to Hevelius's astronomical studies.

Keywords: History of astronomy, scholarly communication, patronage, history of constellations

Short Biography: Maciej Jasiński, PhD (ORCID 0000-0002-3484-4039, email: mjasinski@ihnpan.pl) –historian of science and neo-Latinist, assistant professor at the L. & A. Birkenmajer Institute for the History of Science, Polish Academy of Sciences (Warsaw, Poland). His research interests include early modern scholarly communication and astronomical ideas in non-scientific contexts. He is a participant of the international project of publication of the correspondence of Johannes Hevelius. His most important publications are: "The Correspondence of Michał Antoni Hacki and Johannes Hevelius" ("Odrodzenie i Reformacja w Polsce" ["Renaissance and Reformation in Poland"], 2023 vol. 67, p. 199–230, https://doi.org/10.12775/OiRwP.2023.07); "The Correspondence of Johannes Hevelius", vol. 4, "the Correspondence with Stanisław Lubieniecki" (Brepols Publishers, Turnhout 2021); "Otto von Guericke's Cometary Theory in Stanisław Lubieniecki's Correspondence" ("Journal for the History of Astronomy", 2020, vol. 51, no. 2, p. 131–151, https://doi.org/10.1177/0021828619891273).
E-mail: mjasinski@ihnpan.pl
Affiliation: Institute for the History of Science, Polish Academy of Sciences

S.2.3. From Observations to Representations: The Cultural Lives of Astronomy

Making Science Global: Examples from Mesmerism and Newtonianism

Authors: Derya Tarbuck[1]; Kapil Raj[2]; Rob Iliffe[3]

1 *Bahcesehir University*

2 *Ecole des hautes études en sciences sociales*

3 *Oxford University*

Presenter: Rob Iliffe and Derya Gürses Tarbuck

Title of the paper: Newtonianisms in Action: the Making of a Global Movement

This chapter challenges the long-standing notion of a “universal”Newtonianism by situating it within the global turn in the history of science. Newtonianism, we argue, never possessed the conceptual unity to claim universal validity; rather, what made it distinctive was the geographical breadth of its circulation. Recent scholarship demonstrates that scientific knowledge does not travel in a linear, uniform manner, but is continually adapted, reconfigured, and contested within local contexts. Building on Bruno Latour’s Science in Action, we treat Newtonianism as a”science-in-the-making” and Show that its claims to universality emerged through the stabilization of controversies and the silencing of alternatives.

Presenter: Kapil Raj

Title of the paper: What does it Take to Make Science Global? Moving Mesmerism from France to Britain to Colonial India in the mid-19th Century

As the positivist foundations of the history of science weakened in the 1960s and 70s, attention radically shifted from recounting its inexorable progress grounded in a perception of knowledge as being disembodied and universal —an ‘everywhere and nowhere’view —to demonstrating the crucial importance of the historical, cultural, social, gendered and geographical contexts of its production. In this post-positivist view, then, science is locally created, and only subsequently, through a series of investments and deliberate strategies, does it become transferable beyond its place of elaboration. Circulation has thus become a crucial problematic. Science is then not simply diffused thanks to its universal nature, but is locally created, and only subsequently, through a series of investments and deliberate strategies, does it become mobile and circulate beyond its site of elaboration.

This talk will describe some of these strategies and investments and will use the example of mesmerism in the mid-19th century to illustrate the efforts required to universalise a practice that was born and developed within the intellectual and political context of post-Revolutionary France.

Keywords: Mesmerism, circulation of science, colonial knowledge, local contexts, universality strategies, France, Britain, India, nineteenth century science, Newtonianism, global history of science, circulation and adaptation, science in action (Latour), universality vs. locality, controversies and stabilization, eighteenth century science

Short Biography: Derya Gürses Tarbuck is an Associate Professor of History at Bahçeşehir University, specializing in the intellectual history of the Enlightenment, early modern science, and sociability in eighteenthcentury Britain. She holds a Ph.D. in History from Bilkent University (2004), with a dissertation on Anti-Newtonian Cosmologies. Her research explores anti-Newtonian thought, the intersection of science and religion, and the role of intellectual networks in shaping Enlightenment discourse.
She has held prestigious fellowships, including a Visiting Research Fellowship at the University of Cambridge’s Center for Research in the Arts, Social Sciences, and Humanities (2009) and the Kanner Fellowship in British Studies at UCLA’s Center for 17th and 18th Century Studies (2007–2008). She was also a Postdoctoral Fellow at the Institute for Advanced Studies in the Humanities, University of Edinburgh (2004–2005), where she studied Duncan Forbes of Culloden and Hutchinsonian thought.
Her research on Newtonianism and anti-Newtonianism in Scotland has appeared in journals such as History of European Ideas, Eighteenth-Century Thought, and Academia Letters. Her monograph, Enlightenment Reformation: A Study of Hutchinsonianism (Routledge, 2017), provides a critical reassessment of counter-Enlightenment thought in Britain. She has also explored women’s intellectual sociability, notably in her upcoming work on The Fair Intellectual Club, a women’s intellectual society in eighteenth-century Edinburgh.
Her current research focuses on the global reception of Newtonianism, early modern scientific networks, and the historiography of science and religion in the Enlightenment.
Kapil Raj is a historian of science and technology specializing in the circulation of knowledge between Europe and Asia in the early modern and modern periods. He served as Directeur d’études at the École des Hautes Études en Sciences Sociales (EHESS), Paris. Among his works is the influential book Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe, 1650– 1900 (2007).
E-mail: dgurses@gmail.com
Affiliation: Bahcesehir University

S.2.4. Cross-Cultural Perspectives on Knowledge, Belief, and Cultural Imagination

The Stone-Eaters: Lithophagy and Scholarly Fantasies of Ascetic Diets in Late Imperial China

Author: Brian Li[1]

1 *University of Cambridge*

This paper discusses lithophagy (i.e., the eating of stones), a common if not bizarre literary trope in late imperial China (ca. 1550–1800). Why were well-educated literati so keen on writing and circulating accounts of such a strange diet? This paper argues that lithophagy became an object of great symbolic importance to disaffected scholars, as this fascination had roots in Daoist hermetic and medical texts which emphasized the virtues of a "rustic"lifestyle with precepts that also implicated dietary practices. Such visions appealed to academics confronting the emergence of mercantilist trading practices and changing employment prospects, particularly during the massive expansion of the imperial civil service examinations during the late imperial period. A life of officialdom became increasingly tenuous even among literate populations, and this resulted in a renunciation of worldly habits among many disenfranchised literati. There was a corresponding shift in the objectives of literati identity from classical cultivation to eccentricity. Lithophagy represented an extension of this zeitgeist, for Daoist self-cultivation offered the fantasy of physical immortality, which contrasted with immortality by scholastic reputation, a more "traditional" aspiration under neoConfucian orthodoxy. Lithophagy therefore represented an extreme yet idealistic embodiment of this subculture that privileged self-cultivation over worldly pursuits.

Keywords: Food studies, inner alchemy, Daoist medicine, hermeticism, late imperial China

Short Biography: Brian S-K Li is an MPhil student in the Department of History and Philosophy of Science at the University of Cambridge. He holds an AB in Comparative Literature from Princeton University. He is broadly interested in the intersections of early science and medicine with literature and rhetoric.
E-mail: bsli@alumni.princeton.edu
Affiliation: University of Cambridge

S.2.4. Cross-Cultural Perspectives on Knowledge, Belief, and Cultural Imagination

Non-Western Science and Arts: A View from Latin America Through the Works of J.M. Briceño Guerrero

Author: Juan Acevedo[1]

1 *University of Lisbon*

In *The Labyrinth of Three Minotaurs* (1994),Venezuelan philosopher J.M. Briceño Guerrero (1929– 2014) posited a threefold scheme to explain the complexities of Latin American culture. Three intertwining inner "discourses"which took shape and were rooted from the late 15th to the mid-19th centuries through conquest, colonisation and independence wars. They manifest in every aspect of Latin American societies, hindering and prodding one another. First is the modernist, Eurocentric "Discourse of Enlightenment"; second, the chivalrous, colonial-minded "Discourse of the Aristocrats"; third, the "Wild Discourse,"heir to indigenous and slave grievances, averse to civilisational projects, furtively disrupting the efforts of the other two. I will try to apply this analytic scheme to Asian contexts, in particular to matters concerning the Great Divergence. As Briceño argued for the central role of art in the synthesis and concordance of the conflicting discourses, I will look at technoscientific and artistic examples from Asian history. To what extent, and how can a Latin American hermeneutics shed light on the modernisation struggles of Asia, from Early Modern times to the dynamics of the industrialised nineteenth century? My talk will be exploratory, looking for parallels between cultures of the postcolonial Global South, especially their technoscientific development.

Keywords: Postcolonial philosophy, non-Westerm science, Latin America, great divergence, development

Short Biography: Juan Acevedo has a BA in Classics (+Biblical Hebrew) from the Universidad de Los Andes (Mérida, Venezuela), where he studied with J.M. Briceño Guerrero, and a PhD in History of Philosophy from the Warburg Institute (London), where he studied with Charles Burnett. He is a published poet in his native Spanish and a prolific translator of works on Comparative Religion and Philosophy. After years working in Islamic Studies and on Comparative Religion, he is currently with CIUHCT (Centro Interuniversitário de História das Ciências e da Tecnologia) and the ERC RUTTER Project (Faculty of Sciences, University of Lisbon), studying early modern Arabic manuscripts on Indian Ocean navigation, discerning the cosmological patterns which underlie and inform the first global exchanges. While his current research has a lot to do with nautical technoscience in the Indian Ocean, his main research interest is in the comparative history of ideas (Begriffsgeschichte), especially in the intersection between alphabetic and numeral systems, where theology, metaphysics, geodesy and craftsmanship overlap to express and create realities.
E-mail: juan.acevedo@fc.ul.pt
Affiliation: University of Lisbon

P.2.3. Cross-Cultural-ness of Astronomical Instrumentation Reconsidered

Cross-Cultural-ness of Astronomical Instrumentation Reconsidered

Authors: Afra Akyol[1]; Beyzanur Topçuoğlu[2]; Feyzanur Şaşmaz Akyüz[2]; Silke Ackermann[3]; Taha Yasin Arslan[2]

1 *Istanbul Medeniyet University*

2 *Istanbul Medeniyet University*

3 *History of Science Museum, Oxford*

History of science was often used as an arena for creating disassociation between regions and/or periods. This was mostly spearheaded by scholars who focused on only one side of the story, usually with an ideological perspective. The concept of 'Islamic science'is one of the outcomes of this endeavour. Although it sounds quite promotive of the religion of Islam, it creates a hidden but firm barrier between the knowledge in the West and the Islamic world. This panel aims to discuss the validity of this argument by first providing instruments-based evidence of what is common and what is not between the scientific knowledge of different regions from the same periods. Then it will argue that what can be offered as a solution to revamp the centuries old narrative of the disassociation of the naturally bound scientific knowledge.

Presenters: Silke Ackermann, Taha Yasin Arslan

Title of the paper: What do we mean by "Islamic Science"in museums?

Using labels and categorisations make things more comprehensible in both museum environments and academic studies. However, one has to be very careful in doing so because -as Francis Bacon said'sometimes the remedy is worse than the disease.'This may be particularly valid when it comes to the concept of 'Islamic science'. It sounds fancy and right-to-the-point, but is it really the right label or categorisation? Or is it just a ruse to highlight independency(!) of Eurocentric scientific knowledge from its roots? There is plethora of evidence on Islam being a driving force for exact sciences. But does it make the scientific works from the Islamic world different than from other regions? For instance, isn't a mathematical formula the same for whoever employs it? So, in a broader sense what would make science 'Islamic'? In that regard, what should we make of the works of non-Muslim scholars in the Islamic world? These are the questions seldom discussed as if it does not cause any problem. This talk argues that understanding the association of knowledge accumulated and produced in different regions and periods would reveal the proper assessment of the development of scientific knowledge which is universal in nature.

Presenter: Afra Akyol

Title of the paper: Cross-Cultural Perspectives on the Front of the Astrolabe's Mater

The astrolabe is the most widely used instrument among pre-modern astronomical instruments. In addition to their standard applications, such as determining time or measuring the heights of structures, astrolabes often contain drawings that reflect both the scientific and cultural tendencies of the period and geography in which they were constructed. As an example, the main part of the astrolabe, known as the mater, features a variety of drawings on the back, such as sine graph, zodiac scales, and curves for the sun's noon altitude, a calendar, and a shadow square while the base of the front seldom engraved before the 16th century. From this point, astrolabes from both the Islamic world and the West began to show several types of engravings on the front. In the Islamic world, a geographical atlas known as gazetteer, which contains the numerical values of longitudes, latitudes, and qibla angle for selected localities, while in the West, astrolabes often featured the Quadratum Nauticum, which contains diagram and names of the winds, scales, and navigational tools. This presentation will discuss these drawings and time-wise similarities and application-wise differences in different cultural basins.

Presenter: Beyza Topçuoğlu

Title of the paper: Al-Shāmila as a Sundial: Tracing Its Influence Across Civilizations

In the 13th century, al-Marrākushī classified astronomical instruments based on their functions and forms. According to his classification, instruments that are spherical in nature are three: the astrolabe, the celestial globe, and al-shāmila. While the astrolabe and celestial globe date back to antiquity, al-Shāmila was a groundbreaking invention by Abū Maḥmūd Ḥāmid ibn al-Khiḍr al-Khujandī in the 10th century Islamic world. Al-Khujandī described al-shāmila as an instrument that integrates the functions of the astrolabe, sundial, and armillary sphere. This presentation explores al-shāmila specifically as a sundial, addressing several key questions: What methods can be employed to use alShāmila as a sundial? Did it influence later instruments such as Sanduq al-Yawāqīt by Ibn al-Shāṭir or Dāʾirat al-Muʿaddil by al-Wafāʾī? Could its influence have extended to Western astronomy? The last question is particularly important because a strikingly similar instrument emerged in the 17th century, a sundial-drawing instrument by John Rowley. While the structures of al-shāmila and Rowley's device bear remarkable resemblance, their intended uses diverge significantly. This study aims to discuss the historical and conceptual connections between these instruments, shedding light on their

evolution across different civilizations.

Presenter: Feyzanur Şaşmaz Akyüz

Title of the paper: Comparative Study on Astrolabe Manuals from the 14th Century Islamic Civilisation and the West

Astrolabes are full of marvels with plenty to offer to researchers and historians of science. Many scholars provide accounts of its use with a detailed technical description and translation to specific treatises. Unfortunately, very few of them deal with the use of these instruments with a comparative approach even though more comprehensive understanding of astrolabes in historical context requires detailed examination of treatises from different regions and sometimes even from different periods. This type of study would allow the researcher to examine what is related and what is not as well as to discuss if there are any influence over each other. In this regard, this talk will deal with several treatises on the use of astrolabes both from the Islamic world and the West, all compiled in the 14th century. It aims to reveal what was the norm and research points for the use of astrolabe in different cultural basins at the same periods. For instance, treatises of 14th century Mamluk astronomers, Mizzī and Ibn al-Shāṭir and the astrolabe treatise of the English scholar Geoffrey Chaucer will be examined and compared on the basis of the topics, structure of the texts, and terminology.

Keywords: Science in the Islamic world, cross-cultural perspectives, astronomical instruments, astrolabe, sundial

Short Biography: Afra Akyol is a DPhil student in the department of History and Philosophy of Science at Istanbul Medeniyet University. She completed her master's degree in 2023 from the same department with a thesis titled "Encryption Methods in the 13th-14th Century Islamic World". While her master's research focused on cryptology in the Islamic world, recently, focus of her research shifted towards astronomical instruments in the Islamic world, particularly astrolabes. On that regard, her doctoral research examines the common features of astrolabes from the Islamic world that were not mentioned in the user manuals for astrolabes and traces the hidden knowledge in the making and using these unwritten features.

Beyzanur Topçuoğlu, she is currently a research assistant at the Institute for History of Science in Istanbul Medeniyet University, also a DPhil student in the History of Science and Technology at Istanbul Technical University. She earned her BA in Arabic Literature and Language from Istanbul University in 2020. She then completed her MA in the History and Philosophy of Science (2020–2023) at Istanbul Medeniyet University with a thesis titled 'A Comparative Analysis of Qusṭā ibn Lūqā's and Marrākushi's User Manuals for Celestial Globes'in 2023. Focus of her primary research is the astronomical instrumentation, celestial globes, history of astronomy, and timekeeping in the Islamic world. She has participated in various academic workshops and courses, including the 'Workshop for Manuscript Culture'at Fatih Sultan Mehmet University in 2022–23. She has presented some of her research at international and national conferences, including 41st Scientific Instrument Symposium in Athens, Greece in 2022, 42nd Scientific Instrument Symposium in Palermo, Italy in 2023 and the 2nd Mamluk Symposium at Istanbul University, Türkiye, also in 2023. Some of her presentations include 400 Years on the Use of the Celestial Globe: Qusṭā ibn Lūqā, Khazini and Marrākushī, Khujandi's 'Comprehensive Instrument', and The User Manuals of Celestial Globes in the Mamluks: The Case of al-Marrākushī. Her academic endeavours have been supported by scholarships, including grants from the Inter-Union Commission for History of Astronomy in 2022 and 2023.

Feyzanur Şaşmaz Akyüz, she received her BA with summa cum laude in the Department of the History of Science at Istanbul Medeniyet University 'n 2022. As part of her BA thesis, she completed a TUBITAK research project titled ''. She worked as a research assistant in two workshops at the Manuscript Research Centre at Fatih Sultan Mehmet University. She began her master education at the Department of the History and Philosophy of Science at Istanbul Medeniyet University in 2023. The focus of her studies is the history of classical astronomy and astronomical instrumentation in the Islamic world.

Silke Ackermann, Dr Ackermann studied History, Languages & Cultures of the Islamic World, and History of Science at Frankfurt/Main University before joining the British Museum as its first curator of European and Islamic scientific instruments in 1995 where she served in a wide range of curatorial and managerial roles. In 2012 Silke left the UK to take up a professorship in cultural leadership in Germany, where she was later appointed president. In March 2014 Silke returned to the UK to take up the directorship of the History of Science Museum (HSM) at Oxford University and a professorial fellowship at Linacre College, combining her passion for outreach, teaching and research. She is the first female director of any of the Oxford University museums. Silke is now focused on Vision_24, her ambitious strategy to make the HSM relevant for today and the future under the strapline 'Explore Science –Discover Humanity'.

Taha Yasin Arslan is a historian of science and assistant professor at the Institute for the History of Science at Istanbul Medeniyet University. His research mostly focuses on scientific instruments – astronomical instruments in particularin the Islamic world from the 9th to 16th centuries. Additionally, from 2020 to 2022, he was a research associate as part of a project at St John's College, Oxford which dealt with transmission of astronomical knowledge from the Islamic world to the 17th-century England via manuscripts and scholars such as John Greaves. Dr Arslan makes replicas and reproductions of historical scientific instruments and uses them in lectures as a teaching aid. He also used these replicas in hands-on astrolabe workshops all around the world, often by teaming up with Dr Silke Ackermann, the director of the History of Science Museum, Oxford. Arslan has multiple on-going projects such as replication of Taqī al-Dīn ibn Maʿrūf's optical experiments and reproduction of a spherical astrolabe based on a 15th-century treatise.

E-mail: tahayasinarslan@gmail.com

Affiliation: Istanbul Medeniyet University

S.2.5. Intellectual Mobility, Commerce, and Academic Networks

Gift-Economy and the Jesuit Management of Relics in the Asian Mission

Author: Stefano Gulizia[1]

1 *Ca' Foscari University in Venice*

At his death, Francis Xavier held a fragment of Loyola's handwriting and a relic. Beyond this episode, it is well-known that books, devotional objects, merchandise, and prints criss-crossed between Asia and Europe, in both directions, and despite an imperfect mailing system. Indeed, in the long seventeenth century the Jesuits became the main producers and distributors of relics, as well as authenticators of their legitimacy. However, there is still no comprehensive treatment of Jesuit relics against the background of early modern diplomacy and the global traffic of goods. This paper focuses on the classic, Maussian account of reciprocity in relationship with generosity and the Jesuit disciplines of the self, asking new questions about the status of these commodities. It makes an argument that in our over-reliance on the 'biography of things', invoked both by Subrahmanyam and Appadurai, we may have underestimated the relic's capacity to recapitulate theology and anthropology as discursive forms of patronage. The paper, seeking to locate the relics as motion, instead of in motion, pays special attention to the Jesuit mission to Asia, which demonstrates a dialogue with the Reformation' s critique of the fragmentation of the holy body, its complex management, and the (dis)connected agency of empires.

Keywords: Jesuits, relics, Marcel Mauss, gift-giving, early modern Asia, commodity

Short Biography: Stefano Gulizia is a senior lecturer at Ca' Foscari University of Milan. He serves as the president of Scientiae and is the editor in chief of the Scientiae Studies book series. His last essays include "Cartesianism between Northern Europe, Germany, and the Medici Court"(Brepols 2023), "Assembling the Scribal Self,"in Beyond the Learned Academy (Oxford 2024) and "Disputing the Animation of the Heavens in Rome around 1616"(Centaurus 2024, with PD Omodeo).
E-mail: sgulizia@gmail.com
Affiliation: Ca' Foscari University

S.2.5. Intellectual Mobility, Commerce, and Academic Networks

Intellectual Mobility and the Dutch Levant Company: The Republic of Letters in the Ottoman World

Author: Mai Lootah[1]

1 *Rice University*

Scholarly attention has largely focused on the European works transmitted, translated, adapted, and integrated into Ottoman intellectual life, such as Gerardus Mercator's cartographic works, as published and expanded by Jodocus Hondius in Atlas Minor (1607), (1607), and Joan Bleau's Atlas Maior (1662-1672). However, few studies have explored the pathways through which such works traveled or situated them within the broader forces driving their circulation, particularly the maritime trade networks of emerging capitalist powers.

The seventeenth century saw the Dutch Republic flourish as a capitalist state and a center for both print culture and global trade. While the Dutch Levant Company (Levantse Handel) was primarily a commercial enterprise, its trade routes carried commodities, people, and ideas. Historical evidence suggests that the Dutch Levant Company networks played a role in the circulation of ideas of the Republic of Letters—an intellectual network of correspondences among scholars of the era. This paper examines the Dutch Levant Company's role in transmitting European knowledge to the Ottoman Empire during the reign of Mehmed IV (1648-1687). Further, it challenges the traditional framing of the Republic of Letters as a solely European phenomenon, demonstrating that Ottoman scholars were active participants in this intellectual landscape.

Keywords: Dutch Levant Company, republic of letters, history of science, Ottoman-European exchanges, maritime routes, early modern cartography

Short Biography: Mai Lootah is a PhD Candidate at Rice University studying responses to comet apparitions across seventeenth-century Eurasian space. Her research explores moments of encounters and interactions that generate ideas, texts, reactions, and interpretations by following the "pathways"of movement and transmission, overland and maritime, contingent or deliberate. With a primary textual approach, she engages directly with the primary sources in their original languages. She is proficient in classical languages, such as Greek, Latin, and Arabic, and is currently studying modern and Ottoman Turkish. Her current translation projects involve the translation of several texts on medieval and early modern cosmology and astrology from Latin and Ottoman Turkish into English.
Mai's broader research interests include the medieval and early modern exchange of cosmological, scientific, and philosophical ideas, Latin-Arabic and Latin-Ottoman transmission of knowledge, ChristianMuslim intellectual interactions, the history of astronomy and cultural astronomy, and the representation of the sky in art and poetry. Her work has been recognized with several awards, including the 2024 Lodieska Stockbridge Vaughn Fellowship for Outstanding Achievement and Promise, the 2023 ISSRNC Best Graduate Student Conference Paper Award, and the 2020 American Association of Teachers of Arabic Translation Contest (First Place).
E-mail: ml114@rice.edu
Affiliation: Rice University

S.2.5. Intellectual Mobility, Commerce, and Academic Networks

Science, Commerce, and the Circulation of Knowledge: The James Watt and Matthew Boulton Partnership in 18th-Century Knowledge Networks

Author: Nihal Özdemir[1]

1 *Fatih Sultan Mehmet Vakıf University*

One of the most significant scientist-merchant collaborations of the 18th century, the partnership between James Watt and Matthew Boulton, provides a crucial case study for understanding how knowledge circulated through academic communities, intellectual networks, and commercial practices. This study explores how Watt and Boulton met, how their skills complemented each other, and how their collaboration contributed to early modern knowledge systems.

Watt and Boulton crossed paths in 1768 in Birmingham, when Matthew Boulton, the owner of the Soho Manufactory, sought a more reliable power source, as waterpower proved inconsistent. At the same time, James Watt was refining his separate condenser steam engine and searching for financial support. Boulton's interest in Watt's work laid the foundation for a productive partnership that extended beyond investment, demonstrating how scientific knowledge was integrated into industrial production.

This collaboration was not solely based on the convergence of an engineer and a merchant but was also facilitated by intellectual and social networks. Both were involved in the Lunar Society, a group of scientists, inventors, and industrialists fostering discussions merging scientific ideas with commercial applications. Their correspondence with figures such as Joseph Black, John Roebuck, Erasmus Darwin, and Joseph Priestley illustrates how knowledge flowed through laboratories, institutions, and commercial exchanges.

This study examines the circulation of knowledge, Watt and Boulton's correspondence, their connections with the Royal Society, and the mechanisms linking scientific and commercial knowledge.

Keywords: Knowledge circulation, science and commerce collaboration, James Watt, Matthew Boulton, Lunar Society, early modern knowledge networks, industrial knowledge transfer, steam engine development, Royal Society, intellectual and commercial exchange

Short Biography: Dr. Nihal Özdemir received her undergraduate degree from Istanbul University, Faculty of Letters, Department of the History of Science. She completed her first master's degree in philosophy of history at Marmara University, Faculty of Theology, with a thesis titled "The Problem of Knowledge in Bertrand Russell in Light of New Realism", which was later published by Muhayyel Publishing. Additionally, she earned a second bachelor's degree in journalism from Marmara University, Faculty of Communication. She obtained her Ph.D. in Philosophy from Medeniyet University, Department of Philosophy, with a dissertation titled "New Knowledge Dissemination Channels: The Publicization of Knowledge in 17thCentury England", which was published by both Hiperlink and Ketebe Publishing. Dr. Özdemir also completed a second Ph.D. in Philosophy and Religious Studies at Marmara University, with a dissertation on "New Scientific Knowledge Dissemination Channels in 19th-Century Ottoman Empire".
Her research focuses on the circulation of knowledge, scientific publicization spaces such as coffeehouses, and the transformation of science through artistic representation. She has published articles and book chapters on Islamic Science History and Ottoman Science History.
Dr. Özdemir is the producer and coordinator of the program "Science History Talks". She is currently a faculty member at Fatih Sultan Mehmet Vakıf University, Department of the History of Science, and serves as the Director of the Prof. Dr. Fuat Sezgin Institute for the History of Islamic Science at the same university. She actively contributes to various non-governmental organizations and leads the TÜBİTAK Science History Workshops Project.
E-mail: nozdemir@fsm.edu.tr
Affiliation: Fatih Sultan Mehmet Vakıf University

S.2.6. Wonder and Correction: Interrogating Knowledge Across Early Modern Geographies

A Polyglot Parrot in Baroque Rome

Author: Matthijs Jonker[1]

1 *Utrecht University*

If you were walking through the center of Rome in the 1620s, you would have heard many different languages. These languages were spoken by pilgrims, cardinals and their entourage, merchants, and diplomats, and occasionally also by parrots. One such animal with exceptional linguistic skills was owned by Balduin Breyl (n.d.), a Flemish merchant living in Rome. This parrot could hold whole conversations in Flemish with members of Breyl's household and family. He had also taught himself some Italian words by repeating after street sellers who passed his window. And he sang songs in Flemish about love and in French about wine.

We know about this polyglot parrot from the German physician Johannes Faber's (1574-1629) entry on a Mexican parrot in the *Tesoro messicano* ("Mexican Treasury"), an encyclopedia about the natural history of Mexico, published in 1651 by the Roman Accademia dei Lincei. In this talk, I focus on Faber's discussion of Breyl's parrot and relate it to early modern interpretations of the boundaries between human and non-human animals. Breyl's parrot provides an interesting case study of the complexities of animal speech, and of studying exotic animals in the early modern period, between autoptic observations and interpreting ancient and modern sources.

Keywords: Exotic zoology, animal speech, human-animal bounda

Short Biography: Matthijs Jonker is Assistant Professor Early Modern Art History at Utrecht University. He studies the transcultural and trans-Atlantic production and circulation of knowledge in the early modern period, with a specific focus on the functions of images and illustrations in (present-day) Mexico, Italy and Spain. Between 2020-2023, he was Director of Studies in Art History and Cultural Sciences at the Royal Netherlands Institute in Rome. Earlier, he was a Postdoctoral Fellow at the Bibliotheca Hertziana –MaxPlanck-Institut für Kunstgeschichte in Rome, where he started his current research project. Matthijs'first book, The Academization of Art: The Early Histories of the Accademia del Disegno and the Accademia di San Luca, was published in 2022 with Quasar in Rome. Together with dr. Katherine Reinhart he is completing an edited volume on the visual culture of scientific societies in the early modern period, which is scheduled to appear next spring with Brepols.
E-mail: m.j.jonker@uu.nl
Affiliation: Utrecht University

S.2.6. Wonder and Correction: Interrogating Knowledge Across Early Modern Geographies

Between Wonder and Skepticism: Ottoman Engagement with Medieval Islamic Cosmographies

Author: Feray Coşkun[1]

1 *Özyeğin University*

This study explores the transmission, reception, and reinterpretation of medieval Islamic cosmographies in the Ottoman world, with a focus on their portrayal of wonders (‘*ajā’ib*) and strange phenomena (*gharā’ib*). Rooted in Arabic and Persian traditions, these works offered a vision of the cosmos that blended scientific, religious, and imaginative elements, persisting in Ottoman intellectual circles despite increasing exposure to Western geographical knowledge. The paper examines early Turkish translations and compilations and traces the evolving attitudes toward wondrous and supernatural phenomena. Particular attention is given to Kātib Çelebi, whose critical engagement with cosmographies reflects a broader tendency toward skepticism and rationalization, yet without fully abandoning an enchanted worldview. By analyzing the balance between curiosity, faith, and critical inquiry in Ottoman cosmographical writings, this study contributes to discussions on the interplay between belief and reason, as well as the complexities of pre-modern “disenchantment.”

Keywords: Wonders, Ottoman cosmography, disenchantment, ajaib al-makhluqat, Katip Çelebi

Short Biography: Dr. Feray Coşkun is an assistant professor at Özyeğin University where she teaches world history, history of travel and Ottoman history. She obtained her B.Sc. from Middle East Technical University, Department of History in 2003, M.A. in History from Boğaziçi University in 2008, and Ph.D. from Berlin Graduate School Muslim Cultures and Societies, Freie Universität Berlin in 2015. In the scope of the ERC Project GHOST (Geographies and Histories of Ottoman Supernatural Tradition) directed by Dr. Marinos Sariyannis, she examines the Ottoman cosmographies of ‘Ajā’ib style.
E-mail: feray.coskun@ozyegin.edu.tr
Affiliation: Özyeğin University

S.2.6. Wonder and Correction: Interrogating Knowledge Across Early Modern Geographies – Board: BN30 / 100

Correcting Arctic Knowledge. Uncertain Islands and Animals in Far North

Author: Djoeke van Netten[1]

1 *University of Amsterdam*

Throughout history, the Far North has been a place of myths, fables, and adventures. This sounds attractive, but we have to realize that what we think mythical creatures or ghost islands, were once accepted knowledge. But not all stories were believed by all.

In this talk I follow western-European (mostly Dutch and English) scholarly knowledge, or proclaimed knowledge, from the 15th to the 18th century. My focus will be on zoological and cartographical knowledge. Which animals allegedly lived in the North, what was known about their appearance and behaviour, and how did they relate to humans? Moreover, where did they live? What was known about the islands in the frozen (or perhaps navigable) sea?

By sorting out the instances where earlier ideas and assumptions were explicitly doubted and corrected, this talk yields new insights in the production of new knowledge. How did scholars try to refute what they thought false? From the 16th century onwards, first the English and later the Dutch started to sail the Arctic seas. What was the relationship between received, classical, bookish knowledge and traveller's exploration and observation? And what can we learn from

these knowledge making processes?

Keywords: Arctic, geography, maps, zoology

Short Biography: Djoeke van Netten is Associate Professor Early Modern History at the University of Amsterdam (UvA). Her research is at the crossroads of the history of knowledge, maritime history, and the history of books and maps, with a focus on the Dutch Republic in the wider world. She studied history in Groningen and Rome, and received her PhD from the University of Groningen in 2012. Her dissertation is about the Amsterdam publisher Willem Blaeu. Djoeke received competitive Veniand Aspasia-grants from the Dutch Research Organization (NWO). She published on pilot guides, university printers, Copernicanism, practices of secrecy in the Dutch East India Company, world maps, women on board (special issue Yearbook of Women's history 'gender at sea'2022), maps on ships, and late 16th century Dutch imagination of China. In 2024 she edited a special issue of the Journal for the History of Knowledge themed 'Mapping Uncertain Knowledge. Her most recent work concentrates on the mapping of the Arctic and on animal history, in particularly polar bears.
At the UvA she teaches early modern history, global history, military history, and the history of cartography, next to supervising MA-students and PhD's. From September 2025 she will be head of the history department. She is also affiliated with the National Maritime Museum in Amsterdam, where she worked as research fellow, tour guide, and guest curator. Djoeke visited several Scientiae conferences and organized Scientiae 2020 (cancelled) and 2021 (online) in Amsterdam.
E-mail: d.h.vannetten@uva.nl
Affiliation: University of Amsterdam

Keynote Lecture: Is It Time to Abandon 'Islamic Science'? Genres, Languages, Centers and the Problem of Periodization in Light of Recent Scholarship

Is It Time to Abandon 'Islamic Science'? Genres, Languages, Centers and the Problem of Periodization in Light of Recent Scholarship

Author: Harun Küçük[1]

1 *University of Pennsylvania*

A monolithic notion of Islamic science overlooks the shifting influence of intellectual centers, the true breadth of practices and motivations and, the diverse political and political-economic trajectories of Islamic empires. It also fails to capture the dynamics between Western and Islamic geographies. Although a sense of the Islamic world existed long before the nineteenth century, the notion of "Islamic science"is a product of the 19th and 20th centuries. It is inextricably linked to the imbalance of resources –including symbolic resources-, stemming from Western domination of the modern capitalist world system. Islamic science is a category fundamentally born of violence— a reflection of the profound asymmetries and injustices blanketing Islamic countries, rather than a perennial intellectual designation. While much contemporary scholarship on Islamic science serves the struggle to recuperate recognition at the symbolic level, this moral focus risks obscuring the long-standing patterns of domination, which lie not in science itself, but in the global economic shifts from the 17th century onward. Indeed, many of the observations on as well as frustrations with Western science that we find in nineteenthor twentieth-century Muslim authors have much earlier precedents. Most importantly, while tensions between utilitarian and intellectualist interpretations of knowledge existed long before Western hegemony, Western dominance recalibrated their significance and outcomes. Thus, for many Muslim actors who confronted encroaching Western powers, science played an ambivalent role. For some, it was something to adopt as a pragmatic tool for advancement in areas like arms, public health, and industry. For others, science attached to moral ends rooted in older Aristotelian and Islamic legacies and in different economic conditions. This inherent duality—science as both the perceived fruit of wealth and the perceived locomotive of development—lies at the heart of modern debates surrounding Islamic science. Thus, I contend that the more profound historical divide isn't between Islamic science and Western science, but between utilitarian and intellectual interpretations of science as they were transformed by the pressures of the capitalist world system. I will follow medieval, early modern and modern examples of this rift to suggest that instead of talking about Islamic science, we may be better served by focusing on the shifting ends and means of science.

Keywords: Islamic science, history of capitalism, longue durée, early modern science

Short Biography: My first book Science without Leisure: Practical Naturalism in Istanbul, 1660-1732 (2019) explored the relationship between monetary inflation and natural knowledge in seventeenth-century Istanbul. My primary inspirations have been the materialist historiography of science, the emerging global history of early modern science and Pierre Bourdieu's Pascalian Meditations.
Currently, I am writing a short book, titled The Science that Historians Made, that deals with questions of scientific work, culturally specific and culturally non-specific features of science and the relationship between the twentieth century and the twenty first century.
I am also part of a research team that investigates notions of the natural and the supernatural in the Ottoman Empire. This is a multi-year project that has generous funding from the ERC.
Currently, I serve as the Faculty Director of the Penn's Middle East Center and am an elected member of History of Science Society's Council.
Affiliation: University of Pennsylvania
E-mail: kucuk@sas.upenn.edu

P.3.1. Together, with, against: Building and Reassembling Astronomical Traditions in Three

Together, with, against: Building and Reassembling Astronomical Traditions in Three Different Contexts

Authors: Divna Manolova[1]; Florence Somer[2]; Sophie Serra[3]

1 *Department of Literary Studies –Greek Section, Ghent University*

2 *Observatoire de Paris*

3 *Lund University – Department of philosophy*

All written astronomical cultures attest to the great creativity of astronomers in producing different sorts of manuscripts, printed books and instruments. Embodying the very tools of their practices, these records simultaneously housed and organized the memory that underpinned those practices. These canons and curricula consist of various types of texts, tables and diagrams and they are organized as much around technical astronomical aspects, such as eclipses, planetary motions or daily motion. Historiographical aspects are also part of the process, including the works of a given astronomer or school with their subsequent respective commentaries, the tables concerning a certain date, place, ruler, or even in some cases calendars and astronomical systems attached to ethnic, linguistic or geographical collectives. The formation and continuous negotiation of these astronomical canons and curricula offer invaluable insights into how astronomers curated and managed the intellectual memory of their discipline. This panel brings together three specialists to explore astronomical curricula within three distinct yet deeply interconnected contexts, as evidenced in the Byzantine manuscript tradition of Cleomedes'The Heavens, Latin astronomer, master of arts and physician Ludolfus Borchtorp, and Azerbaijani-Ottoman taqvim dealing with geomancy. By adopting a comparative approach, the panel seeks to advance research into this relatively understudied but crucial aspect of the history of astronomy.

Presenter: Florence Somer, Observatoire de Paris-CNRS –EIDA project

Title of the paper: The Taqvim B-1441 of the Fuzuli Institute of Manuscript (Əlyazmalar İnstitutu) held in Baku

The origins of Taqvim date back to around 400 BC, following the Babylonian invention of the zodiac and the various arrangements of ephemerides for the sun, moon and planets, as well as astrological remarks for the days of the month.

In addition to the possible influence of the Babylonians and Hellenists, the impact of Indian and Sassanian astrological knowledge on the formation of Islamic astrology, particularly in the courts of the early Abbasid caliphs, must also be taken into account.

Thābit b. Qurra, in the second half of the 9th century, made the first known mention of a taqwīm he called daftar al-sana.Two centuries later, al-Bīrūnī also used these concepts in his astrological compendium, Kitāb al-tafhīm li-awāʾil ṣināʿat al-tanjīm. The main aims of these annual compositions were to list planetary positions and the exact time at which the sun enters the different signs of the zodiac, to provide calendar information for different chronological systems, and to communicate astrological prognostications.

While it forms part of the continuing tradition of the production of these documents, manuscript B1441 contains geomancy diagrams (ilm al raml) inherited from another tradition adopted and developed in Azerbaijan mainly during the Ottoman period. My contribution will focus on understanding the continuity of an Arab-Iranian model for understanding astronomical data, superimposed on a tradition specific to Central Asia.

Presenter: Sophie Serra, Lund University, Department of Philosophy – Wallenberg Foundation Project "Reassessing Aristotelian Science"(P.I. Ana Maria Mora Marquez)

Title of the paper: Authorities and Controversies in Latin 15th c. astronomy: The case of manuscript Berlin, Staatsbibliothek, Lat. Fol. 246.

It is challenging to gain an overview of 15th-century Western European astronomy, as it exists within a complex network: taught for itself in some universities but not others, caught between authoritative texts and innovations, and of interest to theologians, philosophers, physicians, and mathematicians. The manuscript Berlin, SB, Lat. Fol. 246 serves as an ideal entry point. It was copied throughout his life by Ludolfus Borchtorp, who was a master in the Faculty of Arts at the University of Erfurt (1445), later became a master in medicine in Padua, and eventually returned to Brunswick as a physician. The manuscript contains over 50 astronomical works, reflecting the teachings he received and gave, his medical uses of astronomy, as well as contemporary debates on calendar reform, astrological interpretations, and errors in astronomical tables. On fol. 263r, it includes a polemical text titled "Invectiva contra astronugos et specialiter contra quondam rudem et presumptuosum," followed by an example of an astrological judgment "by the said idiot" ("Judicium cuiusdam ydeote de quo supra"). I am currently working on an edition and commentary of these works, and I will present

it, alongside the manuscript prepared by Ludolfus, as a testimony of both the traditional curriculum of astronomy in Western universities and the raging polemics in this field.

Presenter: Divna Manolova, Department of Literary Studies –Greek Section, Ghent University

Title of the paper: John Nathaniel's Cosmological Dossier in Vaticanus graecus 1908 and Its Place in the Manuscript Tradition of Cleomedes'The Heavens

Vatican City, Biblioteca Apostolica Vaticana, ms. gr. 1908 is a composite manuscript consisting of codicological units dating to the fourteenth, sixteenth and seventeenth centuries. Its sixth quire puts together cosmological and medical astrological material copied by two professional scribes originating and active in Venetian Crete, namely the teacher, scribe, and theologian John Nathaniel (d. before 1577) and the professional scribe Thomas Bitzimanos (active in the second half of the 15th C). John composed the short text on medical astrology preserved on fols. 32r – 33r, placed it before the Pseudo-Aristotelian De Mundo copied earlier by Thomas and brought it to Venice probably in 1559. He also drafted fol. 33r which includes a diagram of the universe that appeared for the first time in a copy of Cleomedes'The Heavens prepared in 1450 in Sparta. The large-scale diagram is accompanied by a poem on the zodiac, as well as by smaller diagrams of a solar and a lunar eclipse. It also features short texts providing further information about the sun and the moon. This paper positions the diagram in the tradition of Cleomedean diagrams and analyses John Nathanael's spatial organisation of diverse cosmological material as well as the ways in which he departs from his models and sources.

Keywords: Astronomy, history of sciences, astrology, poetry, physical history

Short Biography: Florence Somer holds a PhD in Anthropology and Iranian Philology from the Ecole Pratique des Hautes Etudes/ PSL. After 12 years spent making documentaries on Middle Eastern history, her research focuses on the dynamics of the Iranian world and its neighbors' astronomical history in the early Islamic period. She favors an interdisciplinary approach, combining astro-physical, mathematical, philological, historical and geo-physical understanding of astronomical movements with long-term historical analysis. As part of a post-doctorate at the Paris Observatory's EIDA project, she is working on the synchronic and diachronic production of astronomical diagrams, particularly astrological diagrams, in Persian, Arabic and Ottoman manuscripts.
Sophie Serra is a researcher in the History of Science and History of Philosophy, focusing on late Middle Ages in Western Europe. She is currently employed in Lund University as a researcher in the "Reassessing Aristotelian Science"project (P.I. Ana Maria Mora Marquez), funded by the Knut and Alice Wallenberg Foundation, where she investigates scientific norms adopted by 13-14th c. Parisian astronomers, their relationship to aristotelianism, and their possible evolution. She also is an associate member of SPHERE (UMR 7219, CNRS). She defended her PhD in 2015 at University Paris-Sorbonne, "Nicole Oresme: exigences scientifiques et projet politique"(supervision R. Imbach), exploring the hypothesis of a continuity between this 14th c. French philosopher's political career, and his work in promoting theoretical innovations in natural philosophy and cosmology. Since then, she has been working on natural philosophy, cosmology in the Latin and French traditions, from the late 13th c. onwards. She held several teaching positions in philosophy at French universities, and she has been part of research projects in France, Switzerland and Sweden. Between 2021 and 2023, she was a postdoc researcher in the ERC project "ALFA"(P.I. Matthieu Husson) and she expanded her scope by investigating the milieu of Parisian astronomers from the late 13th c. to the middle of the 14th through their manuscript culture as well as through their epistemological statements, found in the prologues of even their most technical works. She is currently building a research project on the notion of error as it was conceptualised and used in medieval scientific debates from the 13th to the 15th centuries.
Divna Manolova is a researcher of the History of Science and Byzantine Studies and a Marie SkłodowskaCurie Actions postdoctoral fellow. She works on theories of space and dimensionality in Byzantine cosmological and astronomical texts and diagrams, and studies the teaching and learning of the astral sciences and philosophy in Palaiologan Byzantium. Her current project –COSMOPOET: Teaching the Cosmos in Poetry and Prose: Aratus' Phaenomena and Cleomedes' The Heavens in Late Byzantium – studies the medieval Greek and early modern manuscript tradition of the didactic poem Phaenomena by Aratus of Soli (d. before 239 BCE) and compares it to the transmission of the introductory astronomical treatise The Heavens by Cleomedes (first century CE). COSMOPOET aims to rethink the relationship between poetry and astronomy and ultimately, it investigates medieval Greek solutions to the question as to how to explain the cosmos through literary means. Divna is also a co-founder and core member of the organising and scientific team of the History of Science in the Medieval World summer school (est. 2021) which is hosted biannually by the University of Veliko Tarnovo (Bulgaria).
E-mail: florence.somer@gmail.com
Affiliation: Observatoire de Paris

P.3.2. Prognostication, Fortune, and Risk: How Early Modern People Navigated Material Fortunes through Almanacs and Astrological Consultations

Prognostication, Fortune, and Risk: How Early Modern People Navigated Material Fortunes Through Almanacs and Astrological Consultations

Authors: Ahmet Tunç Şen[1]; Jakub Ochocinski[2]; Luís Campos Ribeiro[3]; Tunahan Durmaz[2]

1 *Columbia University*

2 *European University Institute*

3 *University of Lisbon*

This panel challenges conventional approaches to risk studies by examining how early modern communities and individuals navigated uncertainty in their daily lives. Moving beyond the quantitative methods often deployed in assessing historical risk, we investigate how early modern people used astrological knowledge and almanacs to make critical decisions about health, commerce, travel, and agriculture. This panel places centre stage the activities of the astrologer and almanac writer, as well as the consulted individual and almanac reader, to try to understand the qualitative and lived ways early modern people navigated risk and fortune. We will explore the available predictive marketplace in early modern Europe and Ottoman world. In doing so, we will focus on what techniques astrologers used to answer the questions of clients and the contents and use of the almanac writing tradition. In this way, we turn away from traditional economic frameworks often synonymous with risk studies and offer a fresh perspective that reshapes our understanding of how early modern societies conceptualised and responded to fortune and misfortune.

Chair: A. Tunç Şen

Presenter: Jakub Ochocinski

Title of the paper: Celestial Science and Practical Knowledge: Everyday Uses of Calendars in the Polish-Lithuanian Commonwealth

This paper examines how readers in eighteenth-century Poland-Lithuania interacted with astrological predictions found in printed calendars. Throughout the Polish–Lithuanian Commonwealth (15691795), university professors of geometry, astronomy, and astrology produced calendars containing weather forecasts, political predictions, agricultural guidance, and health advice based on astrological principles. However, when we examine how people used these texts—evidenced by annotations written in the interleaved blank pages—we find a different story: owners recorded practical information including household accounts, weather observations, travel records, recipes, and social events. Taking this contrast into account, this paper has two objectives. First, to systematically analyse the astrological content that appeared in these widely circulated calendars. Second, to investigate how readers engaged with these predictions through a close examination of their handwritten annotations. By comparing astrological forecasts produced in universities with readers' writings and marginalia, this paper aims to reveal the complex relationship between institutional knowledge and everyday practice in early modern Poland–Lithuania, offering new insights into how diverse communities navigated between university-produced predictions and their lived experiences.

Presenter: Tunahan Durmaz

Title of the paper: A 'Pathology'of Prognostications: Courtly Politics of Medical Astrology in Ottoman Istanbul in the Late 17th Century

This paper is an exercise on the little-known domain of medical astrology in the early modern Ottoman world, particularly in late-seventeenth-century Istanbul. The circumstantial evidence, particularly from medical sources, indicates that a form of medical astrology must have been practiced in the city. Nevertheless, the scope and marketplace of this practice is barely known since such evidence permits only limited contextualization. As a preliminary attempt to approach it, I propose to turn to sources in which medical knowledge intersects with that of the planets. One such genre is the rûz-nâmes ('book of days') that served as almanacs providing prognostications depending on possible changes in weather, seasons, and so on. Using health-related themes such as humors, diseases, and outbreaks as analytical tools, this paper examines several rûz-nâmes from the late seventeenth century. It particularly focuses on one commissioned by Prince Ahmed, later Sultan Ahmed II, in the year 1095/1684, following the unsuccessful siege of Vienna in 1683 by the latter's brother Sultan Mehmed IV. Through a case study, the paper discusses (a) the role of prognostication in a post-crisis imperial context and (b) some possible historical trajectories of medical astrology in the Ottoman realm.

Presenter: Luís Campos Ribeiro

Title of the paper: How it shall speed? Astrological practices in early modern nautical culture

This paper discusses the role of astrological practice in the long overseas journeys of the early modern period. While sea travel was known to Europeans prior to this time, large oceanic voyages presented new levels of unpredictability. In practical nautical knowledge, astrology was primarily used for weather forecasting to prepare for natural conditions during the voyage. At a personal level astrological concerns varied: merchants wanted to know about the safety of their ships or cargo; ship captains and sailors sought information on the likelihood of a successful journey; and families enquired about the safe return of their loved ones. Taking as an example the practice of English astrologers, this paper examines these astrological consultations as a significant yet lesserknown aspect of early modern maritime journeys. It will show how astrology played a significant part in the decision-making processes of early modern seafarers and those related to them.

Keywords: Astrology, prognostication, almanacs, risk, fortune, early modern Europe, seventeenth–century Istanbul, navigation, agriculture, medicine

Short Biography: Luís Campos Ribeiro is an historian of science and art, and a researcher at CIUHCT, University of Lisbon. He has awarded a PhD in History and Philosophy of Sciences by the University of Lisbon published by Brill with the title Jesuit Astrology: Prognostication and Science in Early Modern Culture (2023). His research focuses on the history of astrology, astronomy and medicine (Medieval and Early Modern) as well as scientific illustration. He was a postdoc researcher at the ERC Rutter Project, where he published studies on the nautical uses of astrology and the effects of early modern globalization in astrological practices. Luís is the head of the Astra Project: Historical research on astrological techniques and practices, hosted by the CIUHCT, University of Lisbon and The Warburg Institute, University of London. This project functions as an exchange and cooperation hub for historians of astrology and related topics.
Jakub Ochocinski is a Ph.D. candidate in the Department of History at European University Institute, Florence. His doctoral thesis, "Calendars in the Polish–Lithuanian Commonwealth (1569-1795): Prognostication, Attention, and Annotation", asks how calendars were written and used in the Polish–Lithuanian Commonwealth (1569-1795). Building on scholarship in the fields of the history of science/knowledge and the history of the book, his thesis shows the ways in which diverse religious, social, and linguistic communities used and interacted with new printed media in the early modern period. Jakub is co-convenor of the History of Science and Medicine Working Group at the EUI and co-investigator with Luís Campos Ribeiro on an ancillary research project, "Prognostication, Fortune, and Risk: How Early Modern People Navigated Material Fortunes through Almanacs and Astrological Consultations".
Tunahan Durmaz is a Ph.D. candidate in the Department of History at European University Institute, Florence. His research focuses on social, cultural, and political aspects of disease and illness in the early modern Ottoman world. Emerging at the intersection of histories of knowledge and history of medicine, his dissertation project "Mood, Appetite, and Fever: Understanding Disease in Ottoman Istanbul, 1640–1691" examines how disease and illness were perceived in medical texts produced in Ottoman Istanbul between the 1640s and the 1690s. In 2024-2025, he is a research fellow at the Koç University Research Center for Anatolian Civilizations (ANAMED) in Istanbul. He is also the recipient of the 2025 Andreas Tietze Fellowship in Turkish Studies at the University of Vienna.
E-mail: jakub.ochocinski@eui.eu, luisribeiro@me.com Tunahan.Durmaz@eui.eu
Affiliation: European University Institute, University of Lisbon

S.3.1. Sacred Authority and the Politics of Faith in Early Modern Cultural Landscapes

Kepler, Witchcraft, and the Law

Author: Lisa Klotz[1]

1 *University of California*

In 1620-1621, Johannes Kepler wrote a detailed argument defending his mother, Katharina, against witchcraft charges. Witches were also being tried in England during this period. Lacking eyewitnesses and direct physical evidence, factfinders had to rely on circumstantial evidence. Circumstantial evidence is not direct proof of the elements of a crime, but an inference of one fact from another suspicious circumstances that bolster the impression of culpability. Reputation and character were also crucial in witchcraft trials, which were about the individual as well as the act. This paper will compare the Roman-canon law followed at the Kepler trial and the English common law; for one thing, English procedure barred torture in witchcraft cases, while Continental cases depended on it to elicit confessions. But English juries could and did convict on indirect evidence which on the Continent merely sufficed to continue investigation by resorting to torture. The two systems constitute different ways of knowing, defining knowledge, and understanding the past. This paper will also discuss Kepler's attack on the evidence in his mother's case and will ask: Did Kepler's experience with the courts likely make him appreciate the law's handling of evidence? Or did it have the opposite effect?

Keywords: Kepler, witchcraft, law, courts

Short Biography: Lisa Klotz, a former practicing attorney, is a lecturer at the University of California, Davis. She also serves as adjunct faculty at the Mitchell Hamline School of Law. She has a J.D. and a Ph.D. in English, with a specialization in early modern English drama. She produces scholarship in two areas: teaching legal reasoning and writing, and intersections between early modern English law and literature. Her essays have appeared in Studies in English Literature, 1500-1900; Cahiers Elisabethains; and Evidence in the Age of the New Sciences.
E-mail: lklotz@ucdavis.edu
Affiliation: University of California

S.3.1. Sacred Authority and the Politics of Faith in Early Modern Cultural Landscapes

Light-Dark and Death Divine: "Bad Mariology" in Colonial Mexico

Author: Zachary Schwarze[1]

1 *Rice University*

In 1531, the Virgin Mary appeared to a Nahua peasant on the outskirts of Mexico City, leaving on his garment a miraculous image of herself. In 1648, the priest Miguel Sánchez published the Image of the Virgin Mary, the first known systematization of the Guadalupe event. Therein, Sánchez echoes the fifth-century Christian Patriarch Cyril of Alexandria in praise of the image, wherein the Virgin inverts the story of the biblical fall and inaugurates a new paradise under which Christians will flourish.

In spirit of the Conference's focus on emergent global relations, this paper will argue that the opening of a geo-exegetical relationship between early modern Mexico and the received late ancient Mediterranean directly contributes to the emergence of exegetical inversion as a key feature of Mexican religiosity. To this end, the paper will also argue that this exegetical inversion constitutes one of the conditions of historical possibility for the emergence of the devotional tradition around the Holy Death, i.e., death venerated in the style of a Catholic Saint. It will be shown that an examination of the aforementioned geo-exegetical relationship fills in persistent gaps in scholarship on the historical origins of devotion to the Holy Death.

Keywords: Late antiquity, early modernity, history of theology, mediterranean studies, Latin American studies

Short Biography: Zachary Schwarze is a doctoral student in the Department of Religion at Rice University in Houston, Texas, USA. Prior to his doctoral studies, Schwarze earned an M.A. in Religion from the same Department. His research sits at the intersection of the cultural history of art and the philosophy of religion, especially where they converge at the study of death and dying in modern and contemporary Mexican religious painting. More specifically, he is interested in examining Mexican votive paintings—called "retablos"—as primary documents through which people negotiate Catholic theological ideas, to the end of both upholding religious doctrine and innovating upon it. His project hinges on a sense of theology as an emically sensitive category of historical inquiry that bridges the supposed gap between institutional and popular forms of knowledge production.
Schwarze's research interests center on the study of La Santa Muerte ("The Holy Death"), that is, death personified and venerated in the style of a Roman Catholic saint. According to sparse Inquisition documents, this devotional tradition first emerged in central Mexico in the late seventeenth century. The historical record is then silent until the early twentieth century, after which the tradition—still recognizable against its seventeenth century form and having since spread to other parts of Mexico—begins to grow exponentially and internationally. Despite the dearth of known literature from the tradition's formative years, Schwarze argues that La Santa Muerte's primary theological models are Jesus of Nazareth and Mary, and therefore that a historical examination of Mariology and Christology —as they are imported into Mexico during the sixteenth century and subsequently developed during the seventeenth and eighteenth centuries—answers critical questions about the tradition's theological (and therefore historical) conditions of possibility.
E-mail: Zrs1@rice.edu
Affiliation: Department of Religion, Rice University

S.3.1. Sacred Authority and the Politics of Faith in Early Modern Cultural Landscapes

From Prophets to Martyrs in the First Two Generations of Quakerism, 1650s-1690s

Author: Erin Bell[1]

1 *University of Lincoln*

In January 1691, George Fox, one of the first Quaker leaders, died after a lifetime preaching and proselytising. In Fox's final years, English Quakers experienced legal acceptance as a Protestant denomination, with the 1689 Toleration Act enabling freedom of worship. It became crucial for Fox's *Journal* to be published promptly, to share his insights and –by curating the 3 extant journal manuscripts –shape Quaker history to best fit Quaker needs.

By focussing on prophecy and mysticism, this selectivity is apparent – few Quaker prophets are acknowledged in the 1694 work, other than Fox; all are male other than citations of Acts 2:17, that sons *and* daughters shall prophesy. Second-generation limitations are also apparent in the physical removal, *after* publication, of an account of radical female Friends. One, Ellen Fretwell of Stainsby, died a tithe martyr in prison 8 months before the *Journal*'s publication; the other, Susannah Frith of Chesterfield, had in the early 1660s engaged in epistolary warfare with self-declared prophet Lodowick Muggleton, and several of his responses to letters, including Frith's, were reprinted in Muggletonian works, preserving Friends'prophetical, controversial and combatant past in contrast to their later efforts to represent themselves in print as quiet sufferers for faith.

Keywords:

Short Biography: Erin Bell is an early modern historian based at the Department of History, University of Lincoln, UK. For several years she has researched early Quakerism in England, the Netherlands and Norway, focussing on gender and the significance of non-Quaker depictions of Friends to Quaker self-representation. She previously worked on the AHRC funded 'Televising History 1995-2010'project led by Prof Ann Gray and developed ideas around absent histories in television documentaries. She continues to research this area, and her early modern research focusses on Quakers in the North-East of England, as well as George Fox's Journal as a keystone early Quaker text.
E-mail: ebell@lincoln.ac.uk
Affiliation: University of Lincoln

S.3.2. Intellectual Lineages and Methodological Innovations in Early Modern Studies

Dynasties and Networks: Knowledge in Academic Families

Author: Gerhard Wiesenfeldt[1]

1 *University of Melbourne*

While the role of family networks at early modern universities has often been studied, the transmission of knowledge within these networks tends to receive less attention. This talk will present an attempt of a typology of family universities using the examples of Tübingen and Jena from the late 16th to the 18th centuries. Tübingen was characterised by the emergence of professorial dynasties most notably those of the families Osiander, Bardili, Camerarius, and Gmelin – that had a strong presence at the university over many generations. Comparable dynasties did not exist at Jena, instead professorial families frequently married into each other, a practice that lasted well into the 19th century and created a network of family relations at the university. While such networks had an obvious function in providing protection for the individual professors, they tended to have less impact in establishing academic family traditions. The talk aims at highlighting how such traditions could shape knowledge as well as academic culture at early modern universities.

Keywords: Universities, families, knowledge traditions

Short Biography: Gerhard Wiesenfeldt is a lecturer for History of Science in the School of Historical and Philosophical Studies at the University of Melbourne. He has worked extensively on the history of physical sciences in the Dutch Republic as well as on the role of experimental sciences at early modern universities. His main research project is focussed on tracing the connection between practical mathematics and academic philosophy at the University of Leiden from 1600-1800. He is also working on the role of family networks at early modern universities.
E-mail: gerhardw@unimelb.edu.au
Affiliation: University of Melbourne

S.3.2. Intellectual Lineages and Methodological Innovations in Early Modern Studies

Opinions and Experiments in Antonio Gómez Pereira's Antoniana Margarita (1554): Digression and History in Natural Philosophy

Author: Karine Durin[1]

1 *University of Nantes*

Antonio Gómez Pereira (1500-1558) was a philosopher and physician who played a significant role in the intellectual renaissance in Spain during the second half of the 16th century. His major opus, Antoniana Margarita (Medina del Campo, 1554) ensured his European reputation beyond the 16th century to the point of being considered a precedent for the Cartesian theory of the animal machine. The Antoniana Margarita addresses various issues, based on a philosophical investigation of the immortality of the soul. However, the consideration about matter emerges as a major theme. Generation and corruption are linked to the description of pure material elements in the experience of sensitivity and sensations. The aim of this paper is to study the movement of Gómez Pereira's thought from the anatomy of the physical perception and the power of the intellect as an act of understanding in sensation to the rhetoric employed in order to question doctrines and to resolve paradoxes. The text reflects important digressions that connect natural philosophy to the political events of the time such as the condition of the Indians, the repercussions of irreligion on civil peace. Political reflections and personal opinions are intertwined in a new way to expand the limits of philosophical doctrine.

Keywords: Rhetoric, natural philosophy, experiment, matter, immortality of the soul, digression

Short Biography: Karine Durin is full professor at Nantes University. Her research focuses on the history of ideas in the Hispanic world in the modern period, natural philosophy and moral and political thought in the Republic of Letters. She is the author of a monograph on Épicure et l'épicurisme en Espagne. Critique et hétérodoxie aux XVIe et XVIIe siècles (forthcoming, Classiques Garnier). The thought of Jerónimo Muñoz plays an important role in the second part of her book proceeding from her Habilitation (2012). She has since devoted works to Muñoz as part of a research project on 'Pliny the Elder and the Rise of a New Philosophy of Nature in the Spanish Golden Age' (since 2015), natural philosophy in Spain and the renewal of scientific thought in Europe in the sixteenth and seventeenth centuries. She is the author of contributions on Oliva Sabuco de Nantes. She is currently preparing the French translation of Nueva filosofía del hombre (Paris, Vrin).
E-mail: karinedurin@yahoo.fr
Affiliation: Nantes University

S.3.2. Intellectual Lineages and Methodological Innovations in Early Modern Studies

Counting the Bees: A Data-Driven Investigation into Early Modern British Thought (1605-1776)

Author: Thijs Ossenkoppele[1]

1 *University of Amsterdam*

Histories of science frequently suggest that the advent of British experimentalism marked a fundamental shift away from the traditional axiomatic ideal of science (Shapin & Schaffer 1985; Dear 1995; Pasnau 2019). While partially accurate, such narratives remain incomplete due to their reliance on a limited evidence base and their emphasis on discontinuity over potential continuity.

This study addresses both issues using a data-driven approach to systematically retrieve and analyze evidence on the axiomatic ideal from a newly constructed corpus. Its starting point is BOOKSHELPhS, a digital bibliographical knowledge graph of logic, philosophy, and science books published in Britain (1605–1776). BOOKSHELPhS, currently containing metadata on 2,123 editions of 1,272 works, serves as the foundation for a structured, machine-readable text corpus.

The corpus enables large-scale retrieval of passages discussing the axiomatic ideal, using an extensive mapping of concepts from the Classical Model of Science (CMS) (de Jong & Betti 2010) to historical actor's terms. Retrieved passages are close-read, annotated, and linked to bibliographic metadata, allowing unprecedented analysis of concept drift, geospatial, temporal, and publishing trends. While the project's resources were built to investigate axiomatic science in Britain, the paper demonstrates its wide reuse potential in the historiography of Early Modern British science.

Keywords: Axiomatic science, mixed methodology, early modern Britain

Short Biography: My name is Thijs Ossenkoppele, and I am a first year PhD student at the University of Amsterdam. I have a BA degree in Philosophy and a rMA degree in the History and Philosophy of Science. I work in the Concepts in Motion group at the Institute for Logic, Language, and Computation. Our group investigates the history of scientific ideas using a methodology that combines data-driven aspects with qualitative investigation, with a special focus on the axiomatic-deductive model of science. I have published on the data-driven aspects of our methodology in computer science proceedings, and am currently working on two history of science and philosophy papers: one examining Newton's mathematical versus experimental approaches to science, and the other inquiring into the Baconianism of the Royal Society Fellows. Both are intended for submission to leading history of science and philosophy journals. I have presented my work (both qualitative and computational) at several conferences.
My PhD project inquires into the axiomatic ideal of science in Early Modern British science and philosophy from Bacon to Hume, and the relationship between this ideal with the development of experimental science. The paper I am proposing contains the findings from my first year as a PhD student, and covers both the electronic bibliography as well as its link with the upcoming stages of my project that will consist of corpus building, conceptual modeling, and close reading and annotating retrieved textual fragments from the corpus.
E-mail: t.ossenkoppele@uva.nl
Affiliation: University of Amsterdam

P.3.3. Cultures of Trust and Global Connections in Early Modernity. Remarks on Pacts and Agreements in Western and Central-Eastern European Texts

Cultures of Trust and Global Connections in Early Modernity. Remarks on Pacts and Agreements in Western and Central-Eastern European Texts

Authors: Filippo Marchetti[1]; Lorenzo Fancello[1]; Luisa Brotto[1]; Matthias Roick[2]

1 *University of Pisa*

2 *Institute of Philosophy and Sociology of the Polish Academy of Sciences*

Description of the panel:

The panel examines theories of conflict management in early modern Europe as strategies for establishing forms of fruitful connection. To this end, works addressing pacts and agreements are regarded as the expression of different 'cultures of trust'which result from the interplay of cultural, religious, social and political factors. In the 16th and 17th centuries, early modern authors could easily perceive themselves as part of rapidly changing social contexts: even within European states, the impact of foreign cultures and forces was undeniable. While reinterpreting ancient and medieval sources, early modern texts addressing the topic of agreements tried to respond to concerns of the present regarding contacts with diverse individuals and groups.

By examining texts written in different areas of Europe, the papers analyze considerations about agreements, their definitions, the types of individuals involved in them, and the circumstances under which they can be broken. They focus on contacts between cultures, religions, and conflicting interests addressed through the concept of trust –often resulting in complex combinations of forms of inclusion and exclusion. The panel aims to encourage debate on the impact of global connections on European theories of social interaction, and on the features and shortcomings of European perspectives.

Chair: Matthias Roick, Institute of Philosophy and Sociology of the Polish Academy of Sciences Presenter: Lorenzo Fancello, University of Pisa

Title of the paper: Pierre Gassendi and Baruch Spinoza: The Advantages of Cooperation

The paper aims to explore how the structure of pacts described by Epicurus is reflected in some modern solutions to the problem of peaceful cooperation. Pierre Gassendi (1592-1655) was the first to pave the way for those who followed. He worked to rescue Epicureanism from its historical accusations of impiety and atheism. In doing so, he formulated a theory of the origins of society based on the concept of utility and the advantages discovered through cooperation. Baruch Spinoza (1632-1677) pursued a similar line of thought. Observing that forms of cooperation could be found even among those he calls "savages", he deduced the primacy of social elements over political ones. To guarantee the benefits of cooperation, both Gassendi and Spinoza relied on explicit pacts and positive laws that bind individuals to publicly beneficial behaviours. Rather than seeking a shared moral or religious foundation, they focused on what is common for all human beings: the strain to improve their condition and the ability to calculate what is advantageous. What is now crucial for peace is not what is just, but what is useful, enabling people –from different geographical and cultural areas – to freely and peacefully cooperate despite their religious and cultural differences.

Presenter: Filippo Marchetti, University of Pisa

Title of the paper: Defending Utopia, or Which Political Theology Best Suits the Polis

The paper focuses on Nicholas Hill's Philosophia Epicurea (1601), a multifaceted work that includes reflections on the failed Catholic conspiracy that forced its author to leave England. The failure of the plot due to an informer led Hill to explore the reasons why his political theology wasn't enough to keep his fellow conspirators loyal. Philosophising about the conspiracy led him to believe that a human pact cannot be binding if it is not supported by an adequate political theology – thus placing fides among the most important theological and social virtues that should sustain the life of a community. As an atomist, Hill sees diversity as an essential feature of nature. For him, however, the commitment to the spread of good political theologies becomes a guiding principle in the sphere of social relations. A critical analysis of Hill's remarks on English colonialism will highlight key aspects and shortcomings of his approach, which is often characterised by suspicion and an emphasis on cultural homogeneity. Hill's thoughts on the possibility of global connections will also be considered in the light of the connection he draws between human forms of loyalty or betrayal, the consideration of geographical spaces, and the construction of powerful ideologies.

Presenter: Luisa Brotto, University of Pisa

Title of the paper: Reaching Agreements in the Polish-Lithuanian Commonwealth. Early Modern Trust-Based Strategies for Conflict Management

The paper aims to address trust-based theories of conflict management in 16thand 17th-century Polish-Lithuanian texts. Due to its political features (an elective form of government; laws granting forms of religious tolerance) and its borders (including the Habsburg Empire, Muscovy, and the Ottoman Empire), Poland-Lithuania faced challenges of multiculturalism. I argue that focusing on different ways of dealing with social trust may enable a better understanding of how conflicts with diverse interlocutors were addressed within the Polish-Lithuanian political discourse, with a focus on how potential conflicts could be transformed into other kinds of connection. To this end, I will analyze some passages from works on social and political theories, ranging from De optimo senatore by Wawrzyniec Goslicki (1568) to Monita politico-moralia by Andrzej Maksymilian Fredro (1664). I will especially focus on Scholia on Aristotle's Rhetoric by Andrzej Abrek (professor of eloquence at the Academy of Zamosc 1629-1656), where the illustration of classical rhetoric is accompanied by some exercises concerning present issues of foreign politics. Special attention will be given to the entanglement of local and international sources, and to the interplay of rules of rhetoric, legal concepts, and moral and political ideas when facing diverse individuals, groups, or states.

Keywords: Trust, agreements, pacts, social and political discourse in aarly modern Europe, global perspectives

Short Biography: Short bio of the presenters

Lorenzo Fancello is a PhD student in Political Philosophy at the University of Pisa (Unipi), under the supervision of Prof. Antonio Masala. He graduated from the University of Pisa in June 2023 with a thesis on the philosophy of Pierre Gassendi, his reformed Epicureanism, and its significant influence on the thought of Thomas Hobbes. In November 2023, he began his PhD, focusing on the reception of Epicureanism in modern political philosophy, particularly through the works of Pierre Gassendi (1592-1655). His research examines Epicurean themes in the political thought of 17thand 18th-century philosophers, such as the concept of the social pact, personal advantage, self-love, critic of religion, and political hedonism (as observed, for example, in Baruch Spinoza, John Locke, and David Hume). His interests also extend to Italian Enlightenment thinkers, including Cesare Beccaria and Pietro and Alessandro Verri, and their engagement with Epicurean and Lucretian themes in political and legal philosophy. He collaborates with the Chair of Political Philosophy at the University of Pisa. He has recently published the article L'epicureismo di Cesare Beccaria (Il Politico, 2024), which examines the reception of Epicurean themes in Beccaria's Of Crimes and Punishments, and the chapter Il doppio binario del gassendismo politico: Hobbes e Spinoza (in Epicureismo antico e moderno, ed. by R. Cubeddu and F. Verde, Rome, Lithos, forthcoming), which investigates the influence of Gassendi's reformed Epicureanism on the political thought of Hobbes and Spinoza.

Filippo Marchetti is Post-Doctoral Research Assistant at the Department of Civilization and Form of Knowledge (University of Pisa), where he is currently working on the manuscript circulation of Giordano Bruno's works in Europe (XVIIth-XIXth centuries). He studied at the University of Pisa (M.A.) and at the Sapienza University of Rome (Ph.D., 2023). His doctoral research (Natural religion and society in John Toland's thought) was devoted to the relationship between English republican thought and the emergence of deism in John Toland's philosophy. In particular, he tried to clarify how the republican tradition (in particular, John Milton and James Harrington) can explain the link between natural religion and civic religion. His research interests consist in the development of John Toland's philosophy and its relationship with other forms of knowledge (political thought, theology, philology) and thinkers (in particular Pierre Bayle, Giordano Bruno and John Milton), and the historical and philosophical culture of Alberto Radicati of Passeran.

Luisa Brotto is Junior Assistant Professor (RTDA) in History of Philosophy at the University of Pisa, where she is carrying out the research project RheTrust (Young Researchers SOE). The project investigates forms of conflict management and social education in Italian and Polish-Lithuanian early modern texts on rhetoric. She received her MA from the University of Pisa (2012) and her PhD in Philosophy from Scuola Normale Superiore (2018). She was a postdoctoral fellow at the Italian National Institute for Renaissance Studies (INSR) in 2019, and a NAWA Ulam Program – Seal of Excellence Fellow at the Institute of Philosophy and Sociology of the Polish Academy of Sciences (Warsaw) in 2021-2023. Her research interests include the history of the concept of trust (fides), theories of social inclusion in the early modern period, the history of Skepticism, theories of education, the political discourse of the Polish-Lithuanian Commonwealth. She has edited and translated into Italian some articles from Pierre Bayle's Dictionnaire historique et critique (Pierre Bayle, Guicciardini, Machiavelli, Savonarola, ed. and transl. by L. Brotto, introduction by G. Paganini, Pisa, Edizioni della Normale, 2017) and authored the monograph Attraverso e oltre il limite. Sulla nozione di fides nell'opera di Giordano Bruno (Milan, Mimesis 2023). She is also the author of articles and chapters on Leon Battista Alberti, Giordano Bruno, Pierre Charron, Pierre Bayle and on teaching at the Academy of Zamość. She is currently working on a monograph on the teaching of social concepts at the Academy of Zamość.

Short bio of the chair

Matthias Roick is currently postdoctoral fellow at the Centre for the History of Renaissance Knowledge of the Polish Acadamy of Sciences in Warsaw. He works within the framework of Prof. Valentina Lepri's ERC project "From East to West, and Back Again: Student Travel and Transcultural Knowledge Production in Renaissance Europe (c. 1470 – c. 1620)". After his PhD in European history at the EUI in Florence, he worked at the University of Göttingen. From 2014 to 2021, he was an affiliated fellow of the Lichtenberg Kolleg, Göttingen's Instititute for Advanced Studies, and Freigeist Fellow for the History of Ethics at the University of Göttingen. From 2022-2024, he worked as PASIFIC (MSC) Fellow on a project on early modern friendship.

He is the author of Pontano's Virtues. Aristotelian Moral and Political Thought in the Renaissance (2017) and the co-editor of two recently published collected volumes, Teaching Ethics in Early Modern Universities, 1500-1700 (2021), together with Valentina Lepri and Danilo Facca, and Vera Amicitia. Classical Notions of Friendship in Renaissance Thought and Culture (2022), with Patrizia Piredda. Matthias has also widely published on different aspects of early modern ethics and virtue theory, including pieces on animal ethics, Petrarca's moral self-fashioning, the virtue of magnificence, and the relationship between literature, collection history, and ethics, and early modern game culture.

E-mail: luisa.brot@gmail.com
Affiliation: University of Pisa

P.3.4. Ways of Knowing Water in Early Modern Europe

Ways of Knowing Water in Early Modern Europe

Authors: David Gentilcore[1]; Oscar Schiavone[1]; Samuel Barney Blanco[1]

1 *Ca' Foscari University of Venice*

This panel seeks to shed light on the ways in which early modern Europeans acquired, interpreted and applied knowledge about water –in particular fresh water –in a range of different contexts. In the process, we shall examine some of the tensions that played out between established authority and empirical observation, received wisdom and practical expertise. To do this we look at three very different case studies from Italy and Spain.

The first compares expertise in the measuring of water in the application of water justice in the Republic of Venice and the Kingdom of Valencia. Officials walked the length of irrigation and drainage canals, interrogating and engaging with local authorities and stakeholders; they measured water depth and speed, evaluated the state of the insfrastructure and assessed climatological circumstances –all in order to adjudicate water-related disputes. The second takes us to the Tuscan Grand Duchy and the figure of Francesco Redi –author, expertimenter and court physician –to analyse his previously unstudied notes on the 'chemical experiences on water'. These shifted from medical inquiries to a broader scientific investigation into water's fundamental nature, ultimately concluding that all water was essentially the same. The final case study takes us back to Venice, here in its urban guise, to examine evolving early modern ideas concerning water quality and purity, and how this was evaluated. This shifting knowledge is compared to actual practice, how Venice monitored and managed its fresh water supply, including its routine testing of water.

Presenter: Samuel Barney Blanco

Title of the paper: Professional Expertise and Measuring Water Justice in Early Modern Rural Communities: the Venetian Terraferma and the Kingdom of Valencia (1500-1600)

The alluvial plains of the Iberian Mediterranean coast that made up the Kingdom of Valencia, and those contained in the arc between the rivers Po and Piave in the mainland of the Republic of Venice, the Terraferma, were the theatre of quotidian irrigation and drainage activities, which involved arbitration between the different communitarian water uses. In the mid-16th century, the practice of water justice was gradually appropriated by new professionals brought in from the centres of power. Officials such as procurator fiscals sent by the Valencian vice-royal courts of justice, together with the periti and avvocati, sent by the Venetian senate's magistracies, walked the length of irrigation and drainage canals, interrogating and engaging with local authorities and stakeholders. These expeditions are recorded in modern sources with an unprecedented degree of detail, focusing on measuring water, (depth and speed of current), as well as its infrastructural aspects (state of embankments and weirs), and assessing climatological circumstances, such as droughts or floods, that conditioned the human actions that were to be judged. This paper examines how local conceptions of water justice and their subsequent investigation were a vector of technical and juridical specialisation in 16th century courts.

Presenter: Oscar Schiavone

Title of the paper: Experimenting with Water at the Spa: Francesco Redi as a Chemist in Bagni di Lucca (1669)

This paper explores the pivotal role of water in early modern science through an analysis of Francesco Redi's previously unknown notes on 'chemical experiences on water'(Biblioteca Marucelliana, Florence: MS Redi 27, fols 1–110). Compiled during Grand Duchess of Tuscany Vittoria della Rovere' s thermal treatments at Bagni di Lucca (1669) and continued over two years, these notes document Redi's evolving interest in water science.

Initially focused on the medical properties of spring water, Redi's experiments aimed to assess purity through colour-based chemical reactions. Over time, they shifted from medical inquiries to a broader scientific investigation into water's fundamental nature –hether it was a principle, an element or a compound. Through studies on the specificity and interchangeability of different waters, he ultimately concluded that all water was essentially the same. Conducted in response to the Accademia del Cimento's findings, his experiments sought to align Florentine science with European standards. By fostering a culture of sceptical inquiry and empirical research, Redi helped shape the principles of free inquiry and intellectual freedom. His work not only advanced water chemistry but also contributed to the broader transformations of the scientific revolution.

Presenter: David Gentilcore

Title of the paper: The Knowledge and Practice of Water Quality in Early Modern Europe

When it came to water intended for human consumption, what was meant by water quality in the early modern period involved a language, conceptualisation and implementation quite different from our own. In order to understand this, my paper has two aims. On the one hand, we examine evolving early modern ideas concerning water quality and purity, and

how this was determined and essayed –including continued reliance on the senses and the increasing role of quantitative chemical analysis –as well as what this meant for the perceived relationship between the 'qualities of waters'and particular diseases.

On the other hand, we look at what this shifting knowledge looked like in actual practice, taking as our test case the hydraulic infrastructure of Venice. The lagoon city was uniquely dependent on rainwater capture for all of its freshwater needs, which fed several thousand 'well-cisterns'located throughout the city. But these faced the twin threats of drought and extraordinarily high tides (acqua alta). We consider how the authorities monitored and managed the city's fresh water supply, including its routine testing of water from the 1730s, long before this became common in European cities, and, closely linked to this, the programme of repair and reconstruction of its public well-cisterns.

Keywords: Water history, epistemologies of water and hydraulics, circulation of knowledge, early modern Italy and Spain

Short Biography: Samuel Barney Blanco is a PhD candidate in Early Modern History at the Ca'Foscari University of Venice and the University of Padua. He is currently in his final year of his doctoral programme, where he will present his thesis under the supervision of David Gentilcore and Dario Canzian, in the framework of the ERC 'Water-Cultures'project. His doctoral thesis is a comparative study between two types of communitarian water boards –on the one hand, the irrigation communities of the Kingdom of Valencia, and, on the other hand, the agricultural consortia of the Terraferma of the Republic of Venice –with special emphasis on their internal justice and political practices, and their relationship with the first state bodies of territorial water government in the 16th century.

Oscar Schiavone (PhD 2009 and 2016) has taught at UC London and Durham University and has conducted research at the Medici Archive Project, Florence. He is currently a post-doctoral fellow at the ERC 'Water-Cultures'project at Ca'Foscari University of Venice. His work focuses on the cultural, environmental and medical history of Medici Tuscany. He is the author of Michelangelo Buonarroti. Forme del sapere tra letteratura e arte nel Rinascimento (Polistampa, 2013) and is currently completing a study entitled Luca Martini (1507-61): a Renaissance polymath and bureaucrat in Medici Tuscany.

David Gentilcore is Principal Investigator of the European Research Council advanced grant 'WaterCultures: The Water Cultures of Italy, 1500-1900', and full professor of early modern history at Ca'Foscari University of Venice. He has published widely on the social and cultural history of early modern Italy, with a special interest in the nexus between food, health and medicine. His most recent books are Pellagra and pellagrous insanity in the long nineteenth century, co-authored with clinical psychologist Egidio Priani (Springer 2023), and 'Cose rare e ammirande del nuovo mondo'. Le piante commestibili americane nell'editoria veneziana tra Cinque e Settecento (Marsilio 2024).

E-mail: david.gentilcore@unive.it

Affiliation: Ca' Foscari University of Venice

W.3.1. Digital Humanities and Artificial Intelligence: Methodological Developments in the Study of Astronomical Sources

Digital Humanities and Artificial Intelligence: Methodological Developments in the Study of Astronomical Sources

Authors: Matthieu Husson[1]; Somkeo Norindr[2]

1 *LTE-Observatoire de Paris, CNRS*

2 *LTE-Observatoire de Paris*

Relevance and Objectives

Since antiquity, astral sciences have been cultivated in diverse historical contexts, often involving complex processes of knowledge transmission and cross-cultural interaction. Consequently, studying their development requires a broad and comprehensive corpus of sources, as well as advanced analytical methodologies capable of addressing the diversity of materials.

The rise of Digital Humanities and Artificial Intelligence is reshaping the accessibility of historical sources, as well as the methods used for their analysis, editing, and interpretation. These technological transformations present both opportunities and challenges for research communities in the history of science. In recent years, scholars have launched collective initiatives to explore these issues, leading to the emergence of new tools, methodologies, and research avenues in the history of astral sciences.

This workshop aims to:

1. Present and discuss recent advancements in the application of DH and AI to the study of astronomical sources.
2. Share knowledge and technical expertise regarding new digital tools.
3. Critically assess the strengths and limitations of these approaches.
4. Explore potential directions for future methodological development.

Methodology

The session will begin with a brief overview of the opportunities and challenges associated with the integration of DH and AI methodologies into the study of the history of astral sciences. A survey of key ongoing projects in the field will be presented, followed by a focused examination of two specific projects led by the History of Astral Sciences team at LTE–Paris Observatory.

Both projects are centered on the analysis of non-discursive elements in historical sources related to the astral sciences, encompassing a broad range of documents from the 8th to the 18th centuries in multiple languages, including Chinese, Sanskrit, Persian, Arabic, Turkish, Hebrew, Latin, and Greek.

Project 1: DISHAS (dishas.obspm.fr)

The DISHAS project is dedicated to the digital study and critical edition of astronomical tables, with the aim of reconstructing the computation scenario employed by historical actors. By providing tools for analyzing the structure and transmission of these tables, DISHAS enables scholars to better understand the mathematical practices embedded within them.

Project 2: EIDA (eida.hypotheses.org)

The EIDA project focuses on the study and digital edition of diagrams used in the astral sciences. It examines both the material aspects of astronomical diagrams—such as their modes of production, visual conventions, and circulation patterns—and their epistemic dimensions, including their relationships with accompanying texts and their roles in reasoning and argumentation. EIDA aims to develop a critical framework for understanding diagrammatic transmission while also creating digital representations that support these analyses by providing new scholarly tools for visualizing, editing and publishing astronomical diagrams.

Throughout the workshop, we will demonstrate these tools in an interactive and informal manner, engaging participants in hands-on exploration. Additionally, we will discuss the forthcoming developments of these projects and their broader relevance not only to historians of mathematical astronomy but also to researchers in adjacent fields, including contemporary astronomy.

At least one-third of the session will be dedicated to open discussion, allowing participants to engage in dialogue about the opportunities and challenges presented by these methodologies and to explore potential future directions for research.

Target Audience

This workshop is primarily designed for early-career researchers, but all scholars interested in the application of Digital Humanities and Artificial Intelligence to historical research are welcome to participate.

Maximum number of participants: 20

Keywords: Digital humanities, Articial Intelligence, History of Astronomy

Short Biography:

Somkeo Norindr (LTE–Observatoire de Paris)

Somkeo Norindr is the Digital Project Manager for the History of Astral Sciences team at the LTE–Paris Observatory. He is in charge of the digital team of the EIDA project, supervising the development of pipelines for automatic extraction and transcription, and the creation of digital tools to assist humanities researchers.

Matthieu Husson (LTE–Observatoire de Paris)

Matthieu Husson is a historian of astronomy within the History of Astral Sciences team at the LTE– Paris Observatory. His research focuses on three main areas: the history of astronomy in Europe (1200– 1600); historiographical practices among astronomers and the global history of astronomy; and the critical analysis of astronomical sources through Digital Humanities (DH) and Artificial Intelligence (AI).

E-mail: matthieu.husson@obspm.fr
Affiliation: LTE-Observatoire de Paris

Round Table – On a Personal Note: Handwritten Knowledge Transfer in Ego-Documents

On a Personal Note: Handwritten Knowledge Transfer in EgoDocuments

Authors: Alicja Bielak[1]; Gábor Förköli[1]; Matthias Roick[2]; Sooyong Kim[3]

1 *Polish Academy of Sciences, Institute of Philosophy and Sociology*

2 *Institute of Philosophy and Sociology, Polish Academy of Sciences*

3 *Koç University, Department of Comparative Literature*

In recent decades, historians have increasingly recognised that the creation and dissemination of knowledge extends beyond the works of published authors and the production and circulation of books. Early modern knowledge was recorded, transmitted and stored in a variety of media, including letters, travelogues, working papers, lists, notebooks, diaries and drawings. Moreover, knowledge was not the preserve of particular groups, nor was it geographically limited. Early modern travellers, such as itinerant students, merchants and diplomats, significantly contributed to the continuous exchange of information and the transfer of knowledge across cultural boundaries. Finally, the creation and dissemination of knowledge did not exclude individual experience, but was embedded in the personal accounts of ego-documents.

Our roundtable brings together four scholars to discuss their own research in the light of these questions. They all work on manuscript sources from a comparative and global perspective, involving travel and knowledge transfer between European regions as well as between European and nonEuropean countries. The aim of the roundtable is to bring together concrete cases of research that test, validate and modify the general assumptions described above for specific textual forms and materials, and to facilitate a conversation about the state of the art, with its problematic aspects and possibilities for further development.

- Alicja Bielak's research centers on the notebooks of Polish-Lithuanian Commonwealth students at Western European universities. Taking into account their social status, religion and future professions, she will argue that in the notebooks even short, seemingly isolated sentences, out of context, proved to be effective conduits, leading the researcher to specific themes or concerns that occupied the students'minds –impossible to find in the official curricula.
- Gábor Förköli examines to what extent the prescriptive and collective aspects of early modern notetaking methods enabled students to construct a self-image via excerpts from their readings and personal notes. He will contend that their concern about identity can be grasped through their rising awareness for confessional issues as well as their increasing curiosity for the historia litteraria of their homeland as part of a broader Republic of Letters.
- Sooyong Kim focuses on Ottoman literati practices in the 17th century, examining issues of canon and its legacies and the role of multilingualism in that regard, with a focus on prose genres, including the autobiographical. He will discuss how health and illness are represented in early modern ego-documents, particularly from an Ottoman Muslim male perspective. The focus of his discussion will be on how Evliya Çelebi in his Book of Travels (ca. 1683) records his recovery from long-term impotence and the uniqueness of that.

The roundtable discussion will be organized in three phases. First, the panellists will briefly present the materials they are working with in 5-7 minutes. Their description may cover one or more of the following points:

- What materials do you work with? What made you interested in them?
- What skills are needed to study your materials? Did you have these skills or did you have to learn them?
- What has your research contributed to the field and how do you think it has changed it? Second, the panellists will discuss among each other for 25-30 minutes.
- How do you think your studies compare with each other? Where do you see differences, where do you see similarities? Is there any continuity between the materials studied, such as commonplace books or lecture notes, and the travel-related ego-documents?
- How would you describe the "status"of handwritten ego-documents compared to printed sources? How would you describe the role of "material"aspects in your studies?
- To what extent can we say that these documents are personal? Were they designed for personal or collective use? Are they based on individual experiences and observations or on other textual sources? To what extent are their compilers able to overwrite inherited stereotypes?
- What are the main systems used to organise knowledge in manuscripts? Should we emphasise cultural differences or transcultural universals in methods of knowledge management? For example, can we assume the existence of ars apodemica outside Europe?

Third, in the remainder of the time, the chair will open up the discussion to audience participation.

Keywords: Ego-document, knowledge transfer, notebooks, travelogue

Short Biography: Alicja Bielak is a post-doctoral researcher at the Polish Academy of Sciences, and currently, she is conducting her research within the ERC Project, "From East to West, and Back Again. Student Travel and Transcultural Knowledge Production in Renaissance Europe"(2020-2026) led by Prof. Valentina Lepri. Between 2018 and 2021 she was a lecturer at the University of Warsaw. She is a PI of a team project Poet, Physician, and Diplomat at the Court of the Radziwiłł Family. Critical Edition of Daniel Naborowski's Correspondence (NPRH financed by the Polish Ministry of Sciences and Higher Education, 2022-2027). She also serves as a Communications Officer of the Society for Emblems Studies and Editorial Assistant of the "Emblematica: Essays in Word and Image"Journal.

Gábor Förköli is a postdoctoral researcher in the ERC project "From East to West, and Back Again: Student Travel and Transcultural Knowledge Production in Renaissance Europe"at the Polish Academy of Sciences. Under the joint supervision (cotutelle) of the Université Paris-Sorbonne (Paris 4) and the Eötvös Loránd University of Budapest, he defended his PhD dissertation on the Central European reception of 17th-century French political thought in 2017. Between 2014 and 2015, he worked as junior researcher in the Humanism in East Central Europe Research Group, which operated in the framework of the Hungarian Academy of Sciences and of the Eötvös Loránd University. His interests include political literature, religious anthropology, history of rhetoric, and the uses of excerpts and common place books in early modern handwritten culture.

Sooyong Kim is an Associate Professor in the Department of Comparative Literature at Koç University. His current research focuses on Ottoman literati practices in the 17th century, examining issues of canon and its legacies and the role of multilingualism in that regard, with a focus on prose genres, including the autobiographical. His recent publications include: "The Poet Nefʿī, Fresh Persian Verse, and Ottoman Freshness"(2022), a re-assessment of early Ottoman engagement with Indian-style Persian poetry; and "Revisiting Multilingualism in the Ottoman Empire"(2021), a critical survey, co-authored with Orit Bashkin, that maps out the ways in which practices across different communities and eras interacted, intersected, and competed with one another. He has also published two books: The Last of An Age (2018), an account of poetic canon-making in the 16th century and An Ottoman Traveller, a co-translation with Robert Dankoff of selections from Evliya Çelebi's 17th-century of Book of Travels.

Matthias Roick is currently postdoctoral fellow at the Centre for the History of Renaissance Knowledge of the Polish Acadamy of Sciences in Warsaw. He works within the framework of Prof. Valentina Lepri's ERC project "From East to West, and Back Again: Student Travel and Transcultural Knowledge Production in Renaissance Europe (c. 1470 – c. 1620)". After his PhD in European history at the EUI in Florence, he worked at the University of Göttingen. From 2014 to 2021, he was an affiliated fellow of the Lichtenberg Kolleg, Göttingen's Instititute for Advanced Studies, and Freigeist Fellow for the History of Ethics at the University of Göttingen. From 2022-2024, he worked as PASIFIC (MSC) Fellow on a project on early modern friendship. He is the author of Pontano's Virtues. Aristotelian Moral and Political Thought in the Renaissance (2017) and the co-editor of two recently published collected volumes, Teaching Ethics in Early Modern Universities, 1500-1700 (2021), together with Valentina Lepri and Danilo Facca, and Vera Amicitia. Classical Notions of Friendship in Renaissance Thought and Culture (2022), with Patrizia Piredda. Matthias has also widely published on different aspects of early modern ethics and virtue theory, including pieces on animal ethics, Petrarca's moral self-fashioning, the virtue of magnificence, and the relationship between literature, collection history, and ethics, and early modern game culture.

E-mail: alicja.bielak@ifispan.edu.pl
Affiliation: Polish Academy of Sciences, Institute of Philosophy and Sociology

S.4.1. Medical and Natural Knowledge Networks in the Early Modern Ottoman and European Worlds

Recording Melancholic Deaths: Necrologies and Healthcare in Early Modern Venice and Padua

Author: Jessica Hogbin[1]

1 *Syracuse University*

On January 8, 1580, sixty-three-year-old jeweler Antonio Bondi, who had suffered from melancholy, threw himself down a well and died, as reported by the Provveditori e Sopraprovveditori alla Sanità (Superintendents and Supervisors of Health) of the Republic of Venice. Necrologies produced in the Veneto demonstrate that melancholic deaths took many forms, from cases such as Biondi's to more mundane "melancholic humors"combined with fever to reports of melancholic pains following childbirth. By engaging with the narratives about people's lives from records of their deaths, this paper investigates the treatment of patients suffering from the capacious category of melancholy through these medical mortality records, allowing for better understanding of the interrelationship between bodily and mental function in the early modern period. This study engages with melancholy, a disease which might impact a patient's life for decades or as little as a few days, and the deadly disorders that sprung from it, such as cancer and rabies. Through the examination of necrologies created in the Veneto from 1550 to 1650, this paper studies how deaths related to melancholy demonstrate the tension between local conceptions of illness and responses to larger, pan-European developments in the implications of early modern humoral theory.

Keywords: Melancholy, medicine, mental health, necrology

Short Biography: Jessica Hogbin is a fourth-year Ph.D. candidate in the History Department at Syracuse University, where she is studying the relationship between medicine, narratives around health, and politics in early modern Italy. Her dissertation, "Innumerable Melancholies: Medicine, Mental Health, and Human Nature in Renaissance Italy, 1450–1650,"considers melancholy as a means of comprehending Renaissance conceptions of human nature, the wider natural world, and scientific thought. Through an analysis of the connection between physical and mental health, her scholarship works to redefine the study of this nowdebunked medical category, repositioning the discourse around melancholy to provide insight into the lived experience of unwell individuals, the people who treated them, and the culture which glorified aspects of their sickness.
E-mail: jrhogbin@syr.edu
Affiliation: History Department, Syracuse University

S.4.1. Medical and Natural Knowledge Networks in the Early Modern Ottoman and European Worlds

Rembert Dodoens's Construction of an Epistemology of Observational Experience: A Case in Sixteenth-Century Medical Empiricism

Author: Zongbei Huang[1]

1 *Department of the History of Science, Tsinghua University*

Many studies have demonstrated the emergence of "observation"as a new epistemic category in sixteenth-century Europe, as well as an increasingly "empiricist"stance taken by European physicians in their knowledge-making. This study aims to offer a more nuanced perspective on this grand shift through an analysis of the works of Flemish physician and botanist Rembert Dodoens (1517– 1585). The all-too-natural modern association of "observation"and "experience"breaks down if we notice how Dodoens only worked out a framework that neatly contained both after almost thirty years of medical-botanical study, coalesced into the Stirpium historiae pemptades sex (1583). In fact, as revealed in his progressive works starting from 1548, the ideas of "observatio"and "experientia" as ways of knowing came down to him from different intellectual and disciplinary sources, one from cosmography and the other from Galenic medicine. For Dodoens, ultimately, "observatio"obtains the apparent, phenomenal characteristics of natural things (heavens, plants, or patient bodies), while "experientia"provides insight into the "facultas"or "properties of essence"which are actually not manifest as opposed to "sensory qualities". This version of "empiricism"is unique, rooted in the world of sixteenth-century medical learning, and calls for reflection on some traditional narratives about early modern empiricism(s).

Keywords: Rembert Dodoens, observation, experience (experientia), empiricism, epistemology

Short Biography: Zongbei HUANG is a PhD candidate at the Department of the History of Science, Tsinghua University, China. She received a Bachelor's degree in philosophy (with distinction) from the same university in 2022. Her ongoing doctoral research focuses on the establishment of new forms of "experience"–especially the observational, descriptive, and historical kind –as sources of "scientific"knowledge about the natural world during the sixteenth century, with an emphasis on scholarly practice and historical epistemology. She has published research articles and book reviews in Journal of Astronomical History and Heritage and Tsinghua Journal of History and Philosophy of Science.
E-mail: huangzb22@mails.tsinghua.edu.cn
Affiliation: Tsinghua University

S.4.1. Medical and Natural Knowledge Networks in the Early Modern Ottoman and European Worlds

An Evaluation for the Understanding of Rational Sciences in the Context of Natural Sciences Works in the Classical Period Ottoman

Author: Nazime Özgür Tamdoğan[1]

1 *Ankara University*

When the 'Classical Period' is mentioned in the Ottoman Empire, it is the period from 14th century, when the state became an empire; to the 17th century, when the first modernization movements began. Educational activities in the Classical Period; It was carried out both in formal education institutions such as schools and madrasahs; and also in non-formal education institutions such as mosques, libraries, and houses of scholars and statesmen. In these institutions, where education was provided at different levels, the works used as textbooks and the educational methods differed on an institutional and periodic basis. Moreover, the education in these institutions during Ottoman Empire was progressed not through curricula as it is today, but through the book-teacher-student relationship, as in the education system inherited from the Islamic tradition. Thus, the books and their contents became the only resources that determined the educational system. In this paper, inspired by the fact that studies on the Ottoman scientific tradition are mostly on religious sciences and there are very few studies on rational sciences (positive sciences), the works on natural sciences published in the Ottoman Empire during the Classical Period (XIV.-XVII. centuries) have been examined from primary sources using the document analysis method. Due to the large sample pool, the scope of this study in Natural Sciences works is limited to the fields of Physics, Chemistry, Geology and Mineralogy, which deal with inanimate objects on earth. In this context, an evaluation will be made regarding the understanding of rational sciences in the Ottoman Classical Period. In addition to contributing to the studies on the 'History of Natural Sciences of Ottoman Civilization', it is also aimed to be a guiding source for Ottoman Science research as it is the first study in which the natural science works taught in educational institutions will be examined in the form of an annotated bibliography.

Keywords: Ottoman Empire classical period, history of science, education and teaching, natural sciences

Short Biography: Nazıme Özgür Tamdoğan is a doctoral thesis student in the field of 'History of Science' at the Department of Philosophy at Ankara University. Additionally, he works as a Science Field Expert at the Board of Education and Discipline, an organization affiliated with the Turkish Ministry of National Education. He graduated from Hacettepe University, Faculty of Education, Department of Science Teaching in 2011. He also graduated from Hacettepe University, Institute of Educational Sciences, Department of Mathematics and Science Education, with a master's degree in 2017. Research interests; History and Philosophy of Science, Ottoman Mathematics-Science Education and History. However, his latest works; He focuses on Ottoman Science Education and History. Among his recent publications;

- "Optics Discussion in Chief Hoca İshak Efendi's Mecmûa-i Ulûm-ı Riyâziye"(Kırıkkale University, DAFSEM Symposium, November 2024)
- With his article titled "Modernization in the Context of Sending Students Abroad in the Ottoman Empire"(Daruşşifa Magazine, June 2024, C.I).
- The book titled "Old Lettered Turkish Mathematics Bio-bibliography" (Nobel Academic Publishing, September, 2024), which consists of translations and transcriptions from Old Turkish works and historical printed and manuscript reviews translated into today's Turkish, includes the author's works consisting of 17 book chapters.

The author's previously published research is listed below:

- 10 book chapters in two different encyclopedias belonging to the same series named "Pioneers of Science in Islamic Civilization Physics-Chemistry-Biology", "Pioneers of Science in Islamic Civilization Medicine"(Hitit University Faculty of Theology Book Project, 2021),
- Article titled "Examination of Teachers' and Experts' Opinions on Teaching Turkish-Islamic Scholars in Science Lessons" (Milli Eğitim Dergisi, 2019),
- Master's thesis titled "Expert and Teacher Opinions on Teaching Turkish-Islamic Scholars in Secondary School Science Courses" (Hacettepe University, 2017),
- International declaration titled "Evaluation of Turkish-Islamic Scientists' and Scholars' Integration into Science Teaching and Learning"(IHPST Congress, IHPST Biennial Conference, 2017),
- International papers titled "Comparison of Western and Islamic Scholars in Science Textbooks and Curriculums"(EJER Congress, 2015).
- In addition, he gave a series of lectures on "Turkish-Islamic Scholars and Their Studies" to teachers between 2017-2018 at the 'Turkish-Islamic Academy' established by the Ministry of Education Istanbul Directorate of National Education.

E-mail: nazimetamdogan@gmail.com
Affiliation: Ankara University

S.4.2. The Movement of Science: Optical, Astronomical, and Horological Knowledge Across Cultures

Light-Colour Relationship in Taqi al-Din and His Primary Source Ibn al-Haytham

Author: Sena Aydın[1]

1 *Istanbul Medeniyet University*

The 16th-century polymath Taqi al-Dīn Muḥammad ibn Maʿrūf wrote a work in the science of optics that would enable him to be recognised as one of the peak figures of the Ottoman classical period. This work, entitled ‘Nawr ḥadīqat al-abṣar wa-nūr ḥaqīqat al-Anẓar’, cites Ibn al-Haytham’s Kitāb al-Menāzir as one of its main sources in its introduction. Taqi al-Dīn’s work uses numerous experimental setups to present the theoretical content under the headings of direct vision, vision through reflection, and vision through refraction. In these experiments, especially the effort to understand the relationship between light and colour is frequently encountered. This study aims to examine Taqi al-Dīn’s understanding of the relationship between light and colour in comparison with his primary source, Ibn al-Haytham. Taqi al-Din’s and his source Ibn al-Haytham’s frequent study of the problem of the colour of light being carried by reflection and refraction in dark room setups, their efforts to understand the nature of colour, and the importance of their works in the history of science in terms of colour theory are issues that need to be examined.

Keywords: Light, colour, optics, Ibn al-Haytham, Taqi al-Din

Short Biography: Sena Aydın completed her undergraduate studies in the Department of Physics at the Faculty of Arts and Sciences, Boğaziçi University, between 2006 and 2011. She pursued her master’s degree in the same department at Boğaziçi University, completing her thesis in 2015 on “The Introduction of Modern Optics into Ottoman Science.”In 2020, she began working as a research assistant at Istanbul Medeniyet University, Faculty of Literature, Department of the History of Science. She completed her doctoral studies in 2022 at the Institute of Graduate Studies, Istanbul Medeniyet University, with a dissertation titled “In Search of the Truth of Light: Rainbows, Halos, and the Problem of Colors in the Ottomans (1300–1600).” She is currently working at the Institute for the History of Science at Istanbul Medeniyet University as an Assist. Prof. The candidate has numerous academic works, including a book derived from her doctoral dissertation, articles indexed in national and international databases, and papers presented at national and international conferences.
E-mail: senapekkendir@hotmail.com
Affiliation: Istanbul Medeniyet University Institute for the History of Science

S.4.2. The Movement of Science: Optical, Astronomical, and Horological Knowledge Across Cultures

The Armillary Sphere in Molla Ali's Risâle-i Meyyâl: A 17th-Century Latin-to-Ottoman Turkish Translation and Its Structural-Functional Analysis

Author: S. Ceren Özdemir[1]

1 *Independent Researcher*

The study of astronomical instruments has been central to the development of Ottoman astronomy, a tradition shaped by both theoretical writings and practical applications. Among the various works in this literature, studies on the Zâtü'l-Halak (the Spherical Armillary) stand out as significant contributions. Our literature review reveals that authors predominantly drew on Turkish and Arabic sources from the sixteenth century onward when writing about this instrument. In contrast, the work Risâle-i Meyyâl (The Treatise on the Inclined [Instrument]), translated by the 17th-century Ottoman astronomer Molla Ali (fl. 1687) in 1093/1682 from Latin into Ottoman Turkish, stands as an exception to this trend. This short treatise, one of the early scientific translations in the Ottoman Empire, provides detailed information on the structure and function of the Zâtü'l-Halak (the Spherical Armillary), and four distinct copies of it have survived to the present day.

This study will examine the physical properties, components, and methods of use of the Zâtü'l-Halak as discussed in Risâle-i Meyyâl. Additionally, the study will assess whether there are any differences between the four known copies of Risâle-i Meyyâl (which were transcribed between 1682-1782) and will explore the circulation of the text in this context. Finally, the paper will analyze the position of the work within Ottoman astronomical literature and examine how it connects with other Ottoman texts related to Zâtü'l-Halak.

The author gratefully acknowledges that this paper is part of an ongoing project entitled 'Delineating the Journey of European Astronomical Instruments in Ottoman Education and Beyond (1773-1923),'' led by S. Ceren Özdemir and funded by the Scientific Instrument Society, as well as the project 'Portable Astronomical Instruments: The Processes of Adaptation and Diffusion of Medieval Islamic and Early Modern European Examples in the Ottoman Geography (1500-1700),' led by Gaye Danışan within the scope of the TUBA-Outstanding Young Scientists Awards (GEBIP) Program, in which S. Ceren Özdemir is a researcher.

Keywords: Ottoman astronomy, Zâtü'l-Halak, Risâle-i Meyyâl, Molla Ali, astronomical instruments

Short Biography: Solmaz Ceren Özdemir is a postgraduate researcher specializing in the history of Ottoman astronomy. She holds an MA in History of Science from Istanbul University (2021), with a thesis on Eclipse Calculation and Observations in Ottoman Astronomy (1800-1922). She also completed her BSc in History of Science at Istanbul University in 2017.
Her research focuses on the circulation and adaptation of European and Islamic astronomical instruments in the Ottoman world. She leads the project "Delineating the Journey of European Astronomical Instruments in Ottoman Education and Beyond (1773–1923)," funded by the Scientific Instrument Society. She is also a researcher in the TUBA-GEBIP project titled "Portable Astronomical Instruments in the Ottoman Geography (1500–1700)".
Ceren has contributed to important research initiatives, including the TUBITAK 1003 Priority Areas Project (2020–2022) on "A Comparative Study on the Theoretical and Practical Aspects of Scientific Activity in the Ottoman Empire: Annual and Perpetual Calendars (1550-1710)", focusing on the theoretical and practical aspects of scientific activity in the Ottoman Empire.
She is actively involved in academic events, serving on the organizing committee of the Workshop on Ottoman Calendars (1550–1710) and the Channels of Transmission of Astronomical Knowledge in the Ottoman World (14th–18th centuries) Congress. She is also part of the Secretariat of the Local Committee for Scientiae 2025.
The languages Ceren knows are Turkish (native), English (speaking, reading, and writing), Ottoman Turkish (reading), and German (beginner in reading and writing).
E-mail: s.cerenozdemir@gmail.com
Affiliation: Independent Researcher (Türkiye)

S.4.2. The Movement of Science: Optical, Astronomical, and Horological Knowledge Across Cultures

Islamic Clepsydrae in the Christian Spain During the Late Middle Ages

Author: Víctor Pérez-Álvarez[1]

1 *Independent Researcher*

The technology behind the hydraulic clocks dates back to the Antiquity and was transmitted to the Christendom and the Islamic world. From Siria to Morocco and Al-Andalus, Islamic engineers developed further that technology mastering the construction of complicated water driven time pieces and automata. Surviving Arabic treatises are testaments of that refined technological tradition.

Knowledge and objects produced by the Muslims circulated among the Europeans, specially across the borders between neighbouring states. The paradigmatic case is the Iberian Peninsula, which was divided into Christian kingdoms in the North and Islamic kingdoms in the South. The Christians progressively advanced southwards taking territories from their Islamic counterparts until the end of the 15th Century, when the last Muslim state felt into the Christians rule. The conquest boosted the transmission of knowledge and skills with the incorporation of Muslim populations, libraries and different types of infrastructure.

This paper will aim to shed some light on the reception of Islamic clepsydras by the Christians of the Iberian Peninsula. Were they properly understood by them? Were they any useful in the new society? A recently discovered document from the 13th Century mentioning an hydraulic clock in the cathedral of Toledo will be discussed.

Keywords: Hydraulic clocks, knowledge transmission, Medieval Spain, Toledo

Short Biography: The technology behind the hydraulic clocks dates back to the Antiquity and was transmitted to the Christendom and the Islamic world. From Siria to Morocco and Al-Andalus, Islamic engineers developed further that technology mastering the construction of complicated water driven time pieces and automata. Surviving Arabic treatises are testaments of that refined technological tradition.
Knowledge and objects produced by the Muslims circulated among the Christians, specially across the borders between neighbouring states. The paradigmatic case is the Iberian Peninsula, which was divided into Christian kingdoms in the North and Islamic kingdoms in the South. The Christians progressively advanced southwards taking territories from their Islamic counterparts until the end of the 15th Century, when the last Muslim state felt into the Christians rule. The conquest boosted the transmission of knowledge and skills with the incorporation of Muslim populations, libraries and different types of infrastructure.
This paper will aim to shed some light on the reception of Islamic clepsydras by the Christians of the Iberian Peninsula. Were they properly understood by them? Were they any useful in the new society? A recently discovered document from the 13th Century mentioning an hydraulic clock in the cathedral of Toledo will be discussed.
E-mail: vpamm2016@gmail.com
Affiliation: Independent Researcher

S.4.3. Embodied Knowledge: Applied Sciences and Material Practices in Ottoman and Arabic Traditions

Ways of Knowing: Exploring Science and Practice in the Early Modern Arabic Notion of al-Ṣināʿa

Author: Sarah Sabban[1]

1 *Lebanese American University*

This paper explores the Arabic notion of *al-ṣināʿa*, which can be translated as knowledge in practice or applied science, that developed between the 14th and the 18th centuries. It documents the polyvalence of the concept in different contexts and registers of *ʿilm* (science or knowledge at large) and traces the long and collective process of meaning making around *al-sinaʿa* that spanned traditions of knowledge and imperial geographies alike. Following a particular chain of texts, including glosses on works of rhetorical sciences, lexicons, and technical or specialized dictionaries produced within Arab-Islamic cultures in different regions, my analysis shows that *al-ṣināʿa* was defined as the practical application of science, as embodied knowledge, and as a disposition that enabled a modality of action. In encompassing both the Greek *technê* and *praxis*, the Arabic notion retained a more comprehensive and less divisive system of knowledge in comparison to the original Aristotelian concepts, from which the modern Western organization of knowledge derived and devised its new classifications. This study on *al-ṣināʿa*, which came to mean modern industry in the late 19th century, offers a reconsideration of ways of knowing and revisits the notion of science and its relation to practice.

Keywords: Practice, science, knowledge, Arabic

Short Biography: Sarah Sabban specializes in Arab and Middle Eastern history with a focus on intellectual history and material culture. She recently completed her PhD at the History and Archaeology Department at the American University of Beirut (AUB) in Lebanon. Her dissertation titled "al-Ṣināʿa in late Ottoman Beirut: A historical study of an Arabic concept"traces the emergence of al-ṣināʿa from the classical Arabic-Islamic corpus of knowledge into a modern field of inquiry. Previously trained in anthropology (AUB) and Islamic art history (University of Oxford), her academic inquiry has focused on arts and crafts from the Islamic world and different categories used to describe, assess, and relate to them in a variety of contexts. These included the Museum of Islamic Art in Qatar, which Sabban compared in an ethnographic study with the Pergamon Museum in Germany, in how they constructed and de/contextualized the modern concept of "Islamic art"through their display strategies. She has also examined the roles arts and crafts fulfilled in the making of the Lebanese identity from the French Mandate to the first exhibition of Islamic art in Lebanon on the eve of the Civil War in 1974. In 2022, she published an article on this subject, "Imagining Lebanon with Islamic Art: The 1974 Exhibition at the Nicolas Sursock Museum."
E-mail: sbs03@mail.aub.edu
Affiliation: Lebanese American University

S.4.3. Embodied Knowledge: Applied Sciences and Material Practices in Ottoman and Arabic Traditions

From the Mine to the Market: A History of Silver in the EighteenthCentury Ottoman Empire

Author: Deren Ertas[1]

1 *Harvard University*

At the turn of the eighteenth century, the Ottoman Empire undertook a concerted effort to revive its domestic mining industry, which involved reopening closed mines and excavating in new sites. As part of this state-led initiative, the Keban and Ergani mines were opened in the 1720s. Located in the Upper Euphrates and Tigris River Valley, in present-day Elazığ, they became key suppliers of silver and gold for the imperial treasury and mint, while also providing copper and lead essential for the military. This presentation follows silver's journey from extraction to refinement, transportation to Istanbul, and its eventual minting into coinage. By examining the interplay of human and nonhuman labor, technology, and state control in this process, I highlight how Ottoman mining policies reshaped the empire's monetary and military infrastructure. Additionally, I explain the scientific knowledge, technical expertise, and resource networks necessary to extract and refine this precious metal. By centering this historical narrative on the journey of silver, I also aim to provide a new materialist approach to Ottoman historiography wherein the matter and its transformations have an agentive role in how history is shaped.

Keywords: Mining, money, state-building, labor, early modern industry

Short Biography: Deren Ertaş is a historian and painter currently living in Istanbul. She is a PhD candidate in the joint History and Middle Eastern Studies at Harvard University. She is currently writing her dissertation entitled, "Subterranean Empire: The Political Economy and Ecology of Mining in the Ottoman Empire." It focuses on the social, economic, and environmental history of the silver, copper, and lead mines of Gümüşhane, Keban, and Ergani in the long eighteenth century. Her research has been generously supported by Fulbright-Hays, the Council of Overseas Research Centers, the American Research Institute in Turkey, Koç University's ANAMED fellowship, and the Weatherhead Center for International Affairs at Harvard, among others. She is a convener of the MINESCAPES working group at the Consortium for the History of Science, Technology, and Medicine. Before starting her PhD, Deren received her MA from the New School for Social Studies and her BA from Wesleyan University. She grew up in Long Island, New York, after her family relocated to the US from Istanbul in 2005. Besides writing her dissertation, Deren is working on a painting portfolio. She enjoys cooking, traveling, and learning new languages.
E-mail: derenertas@fas.harvard.edu
Affiliation: Harvard University

S.4.3. Embodied Knowledge: Applied Sciences and Material Practices in Ottoman and Arabic Traditions

Cross-Cultural Knowledge Transfer in Military Reform: The Impact of Rochefort's 1717 Proposal on the Ottoman Empire

Author: Alper Atasoy[1]

1 *Independent Researcher*

In 1717, the French officer Rochefort presented a proposal to the Ottoman authorities aimed at establishing a specialized engineering corps composed of foreign experts. His plan included military aspects such as fortifications, artillery calculations, technical training and economic recommendations to reduce the Ottoman Empire's dependence on foreign trade. Although Rochefort's proposal was not accepted at the time, it resurfaced years later through Comte de Bonneval, who arrived in the Ottoman Empire in 1731, converted to Islam as Ahmet Pasha, and played a significant role in founding the Humbaracı Ocağı (Bombardier Corps) and a Hendesehāne (Engineering School). The reappearance of these ideas highlights the complex processes of cross-cultural knowledge transfer and the adaptation of foreign expertise within the Ottoman context. This study explores how Rochefort's proposals contributed to early Ottoman military modernization and their long-term influence on military education. By examining the transmission and transformation of European military knowledge in the Ottoman Empire, this research seeks to shed light on the broader global connections that shaped early modern statecraft, engineering practices, and educational reforms.

Keywords: Knowledge transfer, global connections, military reform, Ottoman engineering, engineering education

Short Biography: Alper Atasoy is an independent researcher focusing on the history of mechanics, technology, and engineering in the Ottoman Empire. He holds a Ph.D. in the History of Science from Istanbul University, where his dissertation examined the development of modern mechanics education in the 19th-century Ottoman Empire. He also completed an M.A. in Philosophy at Istanbul Medeniyet University, writing a thesis on the concept of mechanics in the Hellenistic period. His undergraduate degree is in Electrical Engineering from Yıldız Technical University. His research interests include the cross-cultural transfer of technical knowledge and its influence on Ottoman modernization, the history of engineering education in the Islamic world, and the role of mathematics in Ottoman scientific traditions. He has published articles and book chapters on biographic and bibliographic studies of Ottoman mathematicians as well as a discussion on paradigms in the history of technology. His book chapter "Science of Mechanics in the Ottoman Classical Period (14th–18th Century)" was recently published in "Explorations in the History and Heritage of Machines and Mechanisms" by Springer. He is currently working on an entry on "mechanics"for the forthcoming "Encyclopedia of Science and Technology in Contemporary Islamic Societies (17–20 centuries)" to be published in Turkey. He continues to pursue independent research, focusing on the connections between European and Ottoman scientific traditions and how knowledge transfer shaped early modern education and statecraft.
E-mail: allper.atasoy@gmail.com
Affiliation: Independent Researcher

S.4.4. Medicine, Morality, and the Supernatural: Cultural Narratives of Health in Premodern Societies

The Divine and Demonic Beverage: Antonio Gazio's Medical Treatise on Wine and Beer

Author: Dávid Molnár[1]

1 *University of Tokaj*

In 1538, Simone Gazio dedicated a short treatise on beer and wine to Franciscus Thurzo, a work that survives in an Augsburg edition from 1546. According to Gazio, he discovered the manuscript among the papers of his late father, Antonio Gazio (1461-1528). The main text resembles a medical indictment, establishing health-related "facts" about wine and beer. It evokes a courtroom trial – or rather, a show trial – where witnesses are called one after another. It seems like a piece of medical propaganda. Wine is a divine elixir, whereas beer is the invention of an evil demon meant to sicken people. The utter misery of human life can be tasted in its flavor. Thus, wine was bestowed upon humanity by heaven, while beer originates from the depths of the underworld; one comes from heaven, the other from hell. This paper examines Gazio's work in detail, situating it within the context of ancient medical and ideological topoi related to beer and wine.

Keywords: Beer, wine, medicine, poison, medical theology

Short Biography: Dávid Molnár defended (2015) his PhD thesis on the influence of Marsilio Ficino in Hungary. Subsequently, he worked as a Research Fellow at the Hungarian Academy of Sciences, contributing to the compilation of a comprehensive companion on Hungarian humanism. Later, as Lead Researcher, he prepared a critical edition of Johannes Filiczki's complete works and also authored a monograph on him. In addition, he recently wrote and edited two books on late humanist poets: one on Franciscus Hunyadi and the other on Valerian Mader. He currently works as a Senior Research Fellow at the University of Tokaj (Hungary) and prepares a book about the Paduan physician Antonio Gazio.
E-mail: molnar.david@unithe.hu
Affiliation: University of Tokaj

S.4.4. Medicine, Morality, and the Supernatural: Cultural Narratives of Health in Premodern Societies

Sacred Healing: The Interplay of Magic and Religion in Georgian Folk Medicine

Author: Salome Gviniashvili[1]

1 *Tusheti Protected Landscape*

Georgian folk medicine, deeply rooted in both Christian traditions and pre-Christian beliefs, preserved healing practices that combined herbal remedies with magical rituals, protective spells, and sacred objects. This paper examines the role of religious invocations, amulets, and symbolic actions in healing, as documented in medieval Georgian carabadinis (medical books) and ethnographic sources. By analyzing healing prayers, ritualistic treatments for ailments like eye diseases and wounds, and the use of sanctified substances (such as holy water and blessed oils), the study explores how spiritual and medical practices overlapped. It also draws comparisons with Byzantine and Islamic healing traditions, highlighting the shared belief in divine intervention as part of medical care. Ultimately, this paper argues that the fusion of magic and religion in Georgian folk medicine reflects a broader Eurasian healing tradition, where faith and medicine were not separate, but complementary forces in the pursuit of health.

Keywords: Healing, rituals, speals, Carabadinis, Georgia

Short Biography: Salome Gviniashvili is an art historian with a strong interdisciplinary background in medieval and cultural studies. She holds an MA in Medieval Studies from Central European University (Vienna) and an MA in Cultural Studies from the Tbilisi State Academy of Arts. Her research focuses on medieval visual culture, especially Georgian wall paintings, as well as the ways in which craft culture and healing practices shaped religious and social life in the medieval period.
Alongside her academic work, Salome is active as a curator and educator. She has curated exhibitions and cultural projects in Tbilisi, Warsaw, Zurich, and Yerevan that explored themes of dialogue, memory, and artistic exchange, and she teaches art and cultural history in both academic and community contexts. Her curatorial and educational work often aims to connect medieval traditions with contemporary cultural practices, making historical heritage accessible to wider audiences.
Her broader interests lie in the intersections of art, belief, and knowledge-making, with particular attention to the role of visuality and material practices in expressing identity.
E-mail: Gviniashvilisalio@gmail.com
Affiliation: Tusheti Protected Landscape

S.4.4. Medicine, Morality, and the Supernatural: Cultural Narratives of Health in Premodern Societies

The Science of Aging: Metaphors, Medicine and the Quest for Vitality in Early Modern England

Author: Elisa Ramazzina[1]

1 *University of Insubria*

This paper examines the linguistic and rhetorical strategies in early modern English medical texts to conceptualise old age, vitality, and life prolongation. Focusing on 16thto 18th-century works, including reprints of Bacon's *The Cure of Old Age*, Quersitanus's *Practise of Chymicall Physicke*, Sennert's *Nine Books of Physick*, and Salmon's *Ars Chirurgica*, it explores how aging was metaphorically framed and scientifically rationalised. Central to these texts is the humoral concept of "radical moisture" or the "balsam of life," equating vitality with the gradual depletion of a finite, life-sustaining essence.

Old age is constructed as a phase of depletion and imbalance, contrasted with youthful vigour. Metaphors like the "lamp of life" or "water of life" depict aging's progression, while remedies— dietary regimens, alchemical preparations like potable gold—are presented as restorative or preservative through persuasive rhetoric, reflecting the interplay of science and moralising language.

By situating aging within socio-political and theological discourses, the paper highlights enduring metaphors and shifting paradigms in the cultural understanding of old age. It contributes to the medical humanities, history of science, and sociolinguistics by revealing how early modern English texts framed aging as both a physiological process and a cultural construct.

Keywords: Medicine, old age, life prolongation, vitality, aging, humoral theory, alchemy, physiology

Short Biography: Elisa Ramazzina is currently a Postdoctoral Researcher at the University of Insubria, where she is working on a project titled "Exploring Old Age in 18th-Century English Medical Texts". Previously, she was a Lecturer in the Earliest English Writings at Queen's University Belfast and spent two years as a Marie Skłodowska-Curie Research Fellow at the same university, working on a project titled "Water and Baptism in Old English Poetry". She also contributed as a research assistant at the University of Oxford on the ERC-funded project "CLASP: A Consolidated Library of Anglo-Saxon Poetry".
Her research interests are diverse and interdisciplinary, encompassing the Germanic philological tradition, including Old and Middle English literature, Old and Middle High German, and Anglo-Latin literature. She is particularly interested in medieval science, medicine, cosmology, and cartography, as well as monster studies and border studies. In her previous research, she explored scientific imagery in John Donne's "Songs and Sonets", combining literary analysis with insights into early modern science. Elisa is one of the three co-editors of the four-volume series "The Elements in the Medieval World: Interdisciplinary Perspectives", published by Brill, which explores the cultural, scientific, and literary significance of the four elements in medieval thought. She is also currently authoring her first monograph on the Old English versions of the "Wonders of the East".
Her scholarly work reflects a commitment to exploring the intersections between literature, science, and cultural history, spanning from the early medieval period to the early modern era.
E-mail: elisa.ramazzina@unipv.it
Affiliation: University of Insubria

S.4.5. Reframing Knowledge: Critical Approaches to Historiography, Evidence, and Representation

How Not to Contextualise Materialism in Ottoman Historiography

Author: Utku Can Akın[1]

1 *University of Toronto*

This paper provides an in-depth examination of the narrative surrounding “Ottoman materialism”in late Ottoman historiography, focusing particularly on the common assumptions clustered around the Ṭıbbiyye (Medical School) students. While mainstream accounts often conceptualise the so-called “Ottoman modernisation”by contending that institutions such as the Ḥarbiyye (Military Academy), the Mülkiyye (Civil Service School), and the Ṭıbbiyye merely imported “Western thought”and its outputs, this study uncovers far more complex networks of relations and subjectivities. Drawing on European and North American travel accounts (e.g., Charles MacFarlane), along with Ottoman medical curricula, scholarly production, teşrīḥ (dissection) practices, and detailed student profiles, the paper assesses how securely grounded the claims of materialist inclinations at the Ṭıbbiyye truly are. In addition, it considers whether this alleged “Ottoman materialism” developed into a broader intellectual current—intersecting with philosophical, intellectual, and economic domains—rather than simply constituting a transient trend. By moving beyond the notion of the Ṭıbbiyye as a monolithic, transformative institution, the study highlights the diverse subjectivities and strands of thought that shaped it. Admittedly, one can follow standard historiographical perspectives on “modernity” or nation-formation by tracing the medicalisation of life, populations, and bodies. However, the very bodies of these medical students, steeped in centuries of cultural and historical experience, lead us to question overly neat “modernity”theses. Indeed, on closer inspection, nineteenth-century Ottoman debates concentrated predominantly on concepts such as the nefs (self or psyche), consciousness, and the life of the soul—categories that anticipated, or even fused with, emerging notions of psychology.emphasized text.

Keywords: Materialism, Ottoman historiography, history of medicine, medical students

Short Biography: Utku Can Akın earned his BA from Bilkent University, where he initially studied economics before majoring in international relations and minoring in history. He went on to complete an MA in History at Boğaziçi University, writing a thesis titled “A Critical Perspective on Scientific and Technological Input in Late Ottoman Cotton Cultivation, 1840–1876,”in which he explored how contemporary agronomic methods and techniques—rooted in emerging scientific and technological insights—reshaped late Ottoman cotton production. Akın is currently pursuing a PhD in Near and Middle Eastern Civilizations (focusing on Ottoman History) at the University of Toronto, examining how local and international intellectual currents intersected within “gentlemen’s clubs”in Istanbul between roughly 1839 and 1876. His work engages with the social, cultural, economic, and intellectual facets of the late Ottoman Empire, drawing on insights from science and technology studies and the history of medicine. Looking ahead, he aims to broaden his research to explore how scientific, literary, and engineering endeavours influenced changing social imaginaries in various contexts.
E-mail: utku.akin@mail.utoronto.ca
Affiliation: University of Toronto

S.4.5. Reframing Knowledge: Critical Approaches to Historiography, Evidence, and Representation

The Graphic (Re)Configuration of Historical Evidence: The Collective Construction of Diplomatics in Eighteenth-Century Germany

Author: Andre Araujo[1]

1 *University of Brasilia*

This paper explores the collective and material construction of historical knowledge in the Early Modern period, a dimension often neglected in historiography. While traditional studies emphasize epistemological foundations and the uses of history, this research highlights the collaborative processes underlying the production of printed artifacts. It argues that historical knowledge emerged through intricate academic, artistic, and editorial negotiations, involving questions of intellectual and graphic authorship, as well as the creation of reliable editions. These negotiations were especially significant in illustrated publications on eighteenth-century diplomatics, a historical auxiliary science, where the accuracy of graphic representations of authentic documents was essential to the credibility of printed arguments. Drawing on an analysis of nearly thirty printed works from late eighteenth-century Germany, alongside manuscript drafts, correspondences, drawings, engravings, and the original documents depicted, this study demonstrates how the reproduction of authentic documents was shaped by the media through which it was conveyed. By examining these materials from both intellectual and material perspectives, the paper shifts the focus from traditional historiographical concerns to the broader field of the history of knowledge. It reveals how the interplay between media, collective work, and audience expectations fundamentally shaped the (re)configuration of historical evidence in the Early Modern period.

Keywords: History of knowledge, images, diplomatics, historiography

Short Biography: André de Melo Araújo is Professor of Early Modern History at the University of Brasília (UnB, Brazil), where he has been teaching undergraduate and postgraduate courses since 2012. With a PhD in History from the Universität Witten/Herdecke (Germany), funded by the DAAD, and a post-doctoral fellowship at the University of São Paulo (FAPESP), Dr. Araújo has established himself as a leading scholar in the intellectual and cultural history of the Enlightenment. His book "Weltgeschichte in Göttingen, 1756-1815 [World History in Göttingen, 1756-1815]" (2012) exemplifies his expertise in the history of knowledge and science during the Early Modern period. Dr. Araújo's research focuses on the intersections of print culture, materiality, and historical knowledge in early modern Europe. He is currently the principal investigator of the project "The Making of Evident Knowledge: Antiquarianism and Diplomatics in Eighteenth-Century Germany", exploring how material evidence of the past was visualized and interpreted in scholarly practices. As the head of the international research group "Metamorphose: Materiality and Interpretation of Early Modern Manuscripts and Printed Artifacts", he promotes interdisciplinary collaboration among historians, literary critics, librarians, and archivists from Brazil, Spain, Portugal, and Italy. His academic contributions include publications such as "Transmediating Historical Artifacts" (2022) and entries in the "Encyclopedia of Early Modern History" (Brill, 2020), as well as editing the Handbook "A Época Moderna [The Early Modern Period]" published in Brazil (2024). Dr. Araújo has held visiting professorships at institutions like the Federal Fluminense University (UFF, Brazil) and the Pontifical Catholic University of Chile (Santiago, Chile). His work has been supported by the DAAD, Herzog August Bibliothek, CNPq, FAPESP, and FAPDF. In addition to his research, Dr. Araújo currently serves as coordinator of the University of Brasília's MA and PhD programs in History (2025-current; 2017-2019) and has supervised numerous graduate and undergraduate theses.
E-mail: andaraujo@unb.br
Affiliation: University of Brasilia (Brazil)

S.4.5. Reframing Knowledge: Critical Approaches to Historiography, Evidence, and Representation

A Critical Historiography of the Intersection Between History of Architecture and Science in the Islamic World

Author: Gul Kale[1]

1 *Carleton University*

This paper will look at the intersection between architecture and the history of science in the Islamic world, focusing on the early modern Ottoman empire. It will particularly discuss the role of mathematical sciences in relation to architectural practices. Whereas geometry and arithmetic were important in various artistic practices, their use constantly changed, altering architectural practice and knowledge. Architects relied on specific forms of practical knowledge rather than applying theories. Yet scholarship in the history of science frequently relies on a fixed notion of Islamic architecture, leading to anachronistic reading of this interaction. Through a few case studies based on the sciences of surveying, geometry, and arithmetic, I will argue how it is crucial to critically engage with the transformations in art and architectural histories to understand this evolving relationship better. This reevaluation will also place history of science within its social and cultural context in specific periods while considering its link to the practical realm.

Keywords: Architectural history, art history, history of mathematics, critical historiography

Short Biography: Gül Kale is trained as an architect (ITU) and architectural historian (McGill). She is an Associate Professor of Architectural History and Theory at Carleton University, Canada. Before joining Carleton University, she was awarded a Getty/ ACLS postdoctoral fellowship in Art History in 2018-2019. Her areas of expertise are architectural history and theory with a focus on the early modern Ottoman empire and cross-cultural and global histories and theories of material culture and of the built environment in the wider Mediterranean world and the Middle East. Her book-length project is the first critical analysis of the only early modern book written by a scholar, Cafer Efendi, on Ottoman architecture entitled “Risale-i Mimariyye (1614). During the winter of 2019, she was an AKPIA associate at Harvard University. Her scholarship was also supported by postdoctoral fellowships from the University of Bonn’s Annmarie-Schimmel Kolleg and the Art Histories Program of the Forum Transregionale Studien Berlin. She has been a visiting scholar at various institutes, such as the Kunsthistorisches Institute in Florenz, the Art History Department of the Freie Universität, Berlin, and McGill University’s Institute of Islamic Studies. Her published articles appear in the journals Muqarnas, JSAH, RES, Architectural Histories, and H-Art, as well as in edited volumes “Living with Nature and Things” and “The Mercantile Effect.” Most recently, she has been awarded an SSHRC Insight Development Grant for her research on the social and cultural history of architectural tools and measurements.
E-mail: gulkale@cunet.carleton.ca
Affiliation: Carleton University

S.4.6. Sparks of Knowledge: Early Electrical Science and Mathematical Perspectives

Giovanni Poleni and the Early Development of Electrical Science in Northern Italy

Author: Lorenzo Voltolina[1]

1 *Università di Padova*

The mechanism of diffusion of electrical knowledge in Italy during the first half of the eighteenth century remains an open issue. To what extent did Italian scholars'original research drive it, and how much did it rely on foreign itinerary demonstrators, called "the Saxons"at the time, who allegedly introduced rotational electrical machines south of the Alps?

This paper explores Giovanni Poleni's (1683-1761) engagement with electricity from 1742 to 1748, when the interest in this emerging field rapidly diffused through Northern Italy. First Experimental Philosophy professor at the University of Padua and primarily known for his contributions to hydraulics and civil engineering, his role as an active researcher in electrical science remains largely understudied.

By examining Poleni's national and international correspondence with key figures such as Scipione Maffei, George M. Bose, and Pieter van Musschenbroek, and his unpublished compendium *Physices Elementa Mathematica*, this study sheds light on the complex network of intellectual exchanges that shaped scientific inquiry across Enlightenment Europe, exploring the dissemination of theoretical knowledge and experimental practices, and highlighting the crucial yet often overlooked role of itinerant demonstrators and instrument makers. Additionally, it provides new evidence concerning the authorship of *Dell'Elettricismo* (1746), the first Italian book on electricity.

Keywords: Electricity, Giovanni Poleni, instrument makers, itinerary demonstrators, Dell'Elettricismo

Short Biography: Lorenzo is a PhD student in the History of Physics at the University of Padua. His research focuses on 18th-century electrical science and Giovanni Poleni, exploring his unpublished work and extensive national and international correspondence.
He holds a B.Sc. in Physics from the University of Padua and two M.Sc. degrees: History and Philosophy of Science from Utrecht University and Physics from the University of Pavia.
During the past five years, he worked as a mathematics and physics teacher in secondary education schools across the Venetian Lagoon region, setting up interdisciplinary projects that bridge science, history, philosophy, literature, and art.
E-mail: lorenzo.voltolina.1@studenti.unipd.it
Affiliation: University of Padua

S.4.6. Sparks of Knowledge: Early Electrical Science and Mathematical Perspectives

Scientific Instruments of the 18th-Century Electrical Phenomena from a Philosophical Perspective: An Analysis in the Light of Sturgeon's Lectures on Electricity

Author: Tuğçe Esenduran[1]

1 *Istanbul Technical University*

The emergence of electromagnetism as a distinct phenomenon in the early 19th century marked a significant milestone in the study of electricity and magnetism. However, despite considerable experimental developments, the parental nature of electrical and magnetic forces remained inadequately understood. To have a more comprehensive understanding of the scientific problems of the 19th century, it is essential to examine the main ideas that persisted throughout the 18th century, because these earlier developments formed a basis for later discoveries in electromagnetism. The evolution of natural sciences from philosophical inquiry began in the 17th century and progressed throughout the 18th century, prepared the way for basic principles that influence the modern scientific thought.

The outline of this research is based on Lectures on Electricity, delivered by William Sturgeon at the Royal Victoria Gallery in Manchester during the 1841–1842 session. In those lectures, various philosophical instruments relevant to the study of electrical phenomena from the early 17th to the early 18th century were examined, with a particular focus on their structural composition and the underlying principles governing their function.

These lectures, attended by both public audiences and academic participants, serve as a bridge between philosophical inquiry and the practical applications of early electrical technologies in Victorian England.

Sturgeon's role as a lecturer positioned him between experimental philosophers and an engaged public eager to explore this emerging scientific field. His work reflects a concerted effort to elucidate the theoretical principles underlying electrical experiments, particularly the fundamental physical laws governing this branch of science. In his lectures, Sturgeon not only contributed to scientific discourse but also facilitated a deeper public understanding of electricity and its implications. This work aims to contribute to the understanding of 18th century philosophical instruments by offering understanding into the instrumental developments of electrical phenomena, not only from a practical perspective but also in a wider philosophical meaning.

Keywords: Electric fluid, electric battery, Leyden jar, electric forces, electroscope, electrometer, atmospheric electricity, polarization, electric machine, electric kite experiments, pith ball electroscope, universal discharger, electro-mechanical phenomena, Volta's condenser, Discharges of Leyden Jar, the velocity of electric fluid lateral discharges, aurora borealis, Voltaic electricity

Short Biography: Tuğçe Esenduran is a PhD candidate in Istanbul Technical University, studying in the Department of History of Science and Technology.
With a background including Physics Engineering (BSc) and Control and Automation Engineering (MSc) in Istanbul Technical University, she is an engineer with passion for basic science. Her research interests are situated at the intersections of science and technology.
Currently, most of her works are involved in the history of technology, focusing mainly on the electromagnetic developments in consideration of the works of William Sturgeon who is an experimental philosopher and lecturer that guided the studies on electricity and magnetism in England in the first half of the 19th century. Scientific instruments are her primary interest including to examine the underlying laws that govern them and analyzing their wider effects on science and technology. Her academic background provides her with necessary knowledge to understand the science behind technology.
She is in her intended path to form a link including 'Table of Contents for Issues of Annals of Electricity, Magnetism and Chemistry'which published between 1836-1843 as 10 volumes and conducted by William Sturgeon.
In her opinion those Annals serve as a clear representation of scientifc tendencies in philosophical meaning between the late 18th century and the early 19th century. Notably, the proceedings of the 'Electrical Society of London', the first effort of its time dedicated to electrical research, appeared also in those Annals.
E-mail: esenduran@itu.edu.tr
Affiliation: Department of History of Science and Technology in ITU

S.4.6. Sparks of Knowledge: Early Electrical Science and Mathematical Perspectives

Leibniz on the Representation of Geometrical Objects: The Role of Algebra

Author: Alessia Salierno[1]

1 *Università degli Studi di Milano*

My talk will be aimed to analyse Leibniz's position in relation to the use of algebra as a means to represent curves and diagrams in geometry. The reference sources (partially not yet edited) will be the ones concerning the geometric symbolism invented by Leibniz, i.e. the characteristica geometrica. The analysis will begin with the presentation by Leibniz of the difference between a 'true' geometric symbolism, i.e. able to convey the construction of the solution of a geometric problem without the cumbersomeness of cartesian algebra, and a speciosa for quantities, a 'revised'algebra devoid of the problems implied by the method of Descartes. I will try to situate such a distinction within the context of Leibniz's discoveries during his Parisian stay (1672-1676), and I will show its developments in the following texts on characteristica geometrica. Eventually, I will try to draw a connection between the representation of geometrical objects in algebra and characteristica geometrica with the expression of other mathematical entities (such as numbers) by other representational devices.

Keywords: Characteristica, geometry, algebra, representation, symbolism, Leibniz

Short Biography: My name is Alessia Salierno. I am a PhD student under a co-tutoring contract between the state university in Milan (Università Statale, Dipartimento di Filosofia Piero Martinetti –Filosofia e scienze dell' uomo) and the University of the city of Paris (Université Paris Cité), namely the laboratory SPHERE, specialised in the history and philosophy of science. I have had the chance to take part to the life of the laboratoire SPHERE, spending half the duration of my PhD in Paris. My tutors are Stefano Di Bella on the side of the University of Milan, and Vincenzo De Risi on the side of SPHERE.
I have graduated (both B.A. and M.A.) in Philosophy at the University of Milan (B.A. grade 110/110 with distinctions, tutored by Paolo Spinicci; M.A. grade 110/110 with distinctions, tutored by Niccolç Guicciardini Corsi Salviati).
Here is a list of my recent interventions in talks, seminars and conferences:
-15.05.2024 Atelier Mathesis (SPHERE, Paris), Journée des jeunes chercheurs.
-10.06.2024 Séminaire doctoral d'études leibniziens (SDEL, the branch of the French Leibnizian society for PhD students; ENS Paris)
-06-08.08.2024 Workshop Philiumm and Leibniz Edition, GWLB Hannover (Leibniz Archiv, Hannover)
-04-05.10.2024 Colloque des doctorants de la SDEL (Université Paris-Nanterre, Nanterre)
-07.11.2024 Colloquio dei dottorandi e giovani ricercatori della Sodalitas Leibnitiana (on line seminar, Sodalitas Leibnitiana, Italian Leinizian society). I am currently one of the organisers of this seminar
16-18.01.2025 Forum Descartes (Utrecht)
E-mail: alessia.salierno@unimi.it
Affiliation: Università degli Studi di Milano, Université Paris Cité (SPHERE laboratoire)

W.4.1. How Can We Use the Astrolabe in Education to Inspire a New Generation?

How Can We Use the Astrolabe in Education to Inspire A New Generation?

Author: Willem de Graaf[1]

1 *Utrecht University*

The astrolabe is one of the most prominent examples of mathematical ingenuity and craftsmanship in the Islamic scientific tradition. The astrolabe is a portable instrument with which the (apparent) movements of the sun and stars around the Earth can be represented. The main application of the astrolabe is the determination of time. Other applications include finding the position of the sun and stars, with respect to both the horizon and the meridian, and determining the prayer times and qibla. Ottoman astronomers used the astrolabe until the beginning of the 20th century. The instrument can be found in the inventory lists of military engineering academies even in the period of modernisation.

In this workshop we primarily focus on the astrolabe in the early modern Ottoman scientific tradition and explore together how the astrolabe can be made accessible to a non-expert audience, especially to school pupils and university students, in Turkey, and elsewhere. In the first part of this workshop (15 minutes) we discuss the astrolabe in the early modern Ottoman scientific tradition and list the extant astrolabes. In the second part of this workshop (45 minutes) we expose the participants to the astrolabe workshop. In the astrolabe workshop the participants receive a plastic and paper model of the astrolabe of Abū Maḥmūd Khujandī made in 985 CE, together with a handout with exercises. The model has been recomputed for the latitude of Istanbul, that is for 41 degrees North. We chose the astrolabe of Khujandī to base the model on, since it is not only one of the oldest extant astrolabes, but also the first one that was designed in an artistic way. The astrolabe is currently displayed at the Museum of Islamic Art in Doha, Qatar.

After an introduction, the participants will work on the handout exercises, preferably in groups of up to 4 participants, and under supervision of the workshop instructors, to determine the length of the day and the local time, and find the direction of the sun and the qibla. In doing these exercises, the participants will realise the depth of the astrolabe from their own experience. The participants may also learn some mathematics and astronomy on the way. The astrolabe workshop does not require previous knowledge of mathematics and astronomy.

In the third part of this workshop (30 minutes) the participants reflect on the astrolabe workshop in groups. As a workshop instructor, I will share my own experiences with performing astrolabe workshops for a variety of audiences, most notably for university students and high school students in Turkey, but also for a variety of groups in other countries, such as Algeria, Syria, Saudi Arabia, Iran, Pakistan, Tajikistan, over the years 2006-2025. I will discuss how in my view to best perform these workshops and tailor the materials, i.e., the astrolabe model and the handout exercises, to specific audiences. These audiences can be a general public without any background in mathematics, school pupils, university students, astronomy enthusiasts, an expert audience of mathematicians, people from different cultural backgrounds, and more. I would like to hear from the participants how in their view the astrolabe can be used as an educational tool and source of inspiration for pupils and students in history of science, mathematics and astronomy. Together with the participants, we may also discuss potential other and new ways to perform workshops with the astrolabe. And ultimately, what astrolabe from the early modern Ottoman scientific tradition would be the best choice to base an astrolabe model on.

Time permitting, I will also explain how the astrolabe workshop can be a first element of a multi-day programme about the astrolabe. Other workshops in this programme could deal with the Arabic alphabetic numeral system called abjad and involve reading and interpreting the abjad numbers on an astrolabe. The workshop series could culminate in having the participants draw their own astrolabe on a sheet of paper.

I can also explain how the teaching philosophy of the astrolabe workshop can be extented to similar workshops about other instruments from the Islamic scientific tradition.

Keywords: Early modern Ottoman scientific tradition, astrolabes, outreach activities, teaching methods, mathematical and astronomical instruments

Short Biography: Wilfred de Graaf holds master's degrees from Utrecht University, The Netherlands, in mathematics, theoretical physics and mathematics teaching. He is currently employed at the Mathematical Institute of Utrecht University as education coordinator. He is working as an external candidate on a PhD thesis with a primary focus on the navicula sundial. His interests are in astrolabes, timekeeping and other mathematical and astronomical instruments from the medieval and early modern European and Islamic scientific traditions, and how to effectively use these instruments in university and high school teaching and outreach activities.
E-mail: w.f.degraaf@uu.nl
Affiliation: Utrecht University

P.4.1. Medicine and Slavery in the Early Modern Mediterranean World

Medicine and Slavery in the Early Modern Mediterranean World

Authors: Valentina Pugliano[1]; Ana Struillou[2]

1 *Ca' Foscari University of Venice*

2 *Institute of Historical Research, London*

Part of the panel organized by Valentina Pugliano (Ca' Foscari), and including as speakers Valentina Pugliano, Ana Struillou (IHR, London).

Rationale: Throughout the early modern period the Mediterranean was a major stage for practices of enslavement, affecting millions of individuals across ethnic groups, religious communities, and social ranks. While the medicalization of race and, more recently, slave medicine have become key entry points for the study of Atlantic slavery, the same cannot be said for the Mediterranean context, where enslavement has been traditionally examined from the viewpoint of religious and economic history. Yet, we know, for instance, that the role of physicians was crucial in the selection process of convict and slave galley rowers, and in defining the monetary value of captives. We are beginning to appreciate that bagnos (the slave enclosures dotting the Mediterranean coast, both Christian and Muslim) served economic interests but were also key structures through which early modern states conceived the management of public health. We are also beginning to uncover how captives were crucial for the transfer of medical and pharmaceutical knowledge, and material culture, from one side of the Mediterranean to the other, and beyond. This panel tries to provide a first corrective, aware that the heterogeneity of contexts, perspectives and lived experiences across the wider Mediterranean world cannot be easily reduced to generalities.

Presenter: Valentina Pugliano

Title of the paper: Alessandro Pini (1653-1717), medico condotto: galley slavery, medical practice and Venetian public health

In a dramatic reversal of fortunes typical of Mediterranean slavery, the Florentine physician Alessandro Pini (1653-1717) ended his life in Istanbul's slave bagno. For the previous twenty-five years, after a stint in the 1680s exploring Egyptian flora for the Granduke of Florence and a summer corsairing with the military Order of St. Stephen, Pini's job had been to ensure the health of convicts and slaves, alongside Christian merchants and soldiers, first as galley physician in the Venetian fleet engaged in the Peloponnese wars against the Ottomans, and then as personal doctor to the Venetian ambassador in Istanbul. In contact with Italian scholars including his patron Francesco Redi and the apothecary Diacinto Cestoni, he had expressly chosen such positions to cultivate his interests in cartography, archaeology and natural history. Pini's case is instructive not only of the variety of contradictory roles which early modern physicians played in the Mediterranean slave trade; but also, because he was one cog in a much larger public health initiative established by the Venetian Republic in the eastern Mediterranean and Levant to guard its representatives, manage the threats of plague epidemics, and also –a facet still in need of study –preserve its convict and captive population.

Presenter: Ana Struillou

Title of the paper: Captivity, Slavery and Circulation of Medical Knowledge between Early Modern Spain and North Africa

From the sixteenth century onwards, the expansion of North African privateering in the Western Mediterranean led to the captivity of a growing number of medical practitioners from the Spanish littoral, including surgeons and barbers serving aboard Iberian vessels. At the same time, Spanish military incursions along the North African coast resulted in the forced migration of enslaved Maghribi practitioners to the Iberian Peninsula. This paper examines these reciprocal movements of captive and enslaved medical practitioners across the Strait of Gibraltar during the sixteenth and seventeenth centuries. By focusing on the material environment of these male and female healers, and how they continued to practice medicine on the other side of the Mediterranean, this paper explores the dynamics of the circulation of practical knowledge across the Western Mediterranean and the role of various forms of forced mobility in shaping its diffusion. At a time when practices associated with Islam faced increasing repression in the Iberian Peninsula, this paper also interrogates the nature and the shape of the archives that allow us to unearth the itineraries of medical knowledge and expertise across the region.

Keywords: Mediterranean, medicine, slavery, knowledge exchange, public health, medical practice, material culture, Maghreb, Iberia, black healers, unorthodox healing, Inquisition

Short Biography: Valentina Pugliano is a historian of science, medicine, and material culture of early modern Italy and the Mediterranean world, with a special interest in the relations between the Republic of Venice and the Ottoman Empire. She is currently a Marie Sklodowska Curie Research Fellow at Ca'Foscari University of Venice, and previously taught and held research positions at the Massachusetts Institute of Technology and the University of Cambridge. She was awarded her doctorate from the University of Oxford (2013), and over the years her work has been supported by, among others, the Wellcome Trust for the History of Medicine, the Max Planck Institute for the History of Science in Berlin, the Institute for Historical Research in London, and the US National Endowment for the Humanities.

Alongside a number of pieces in Isis, the Bulletin for the History of Medicine, Early Science and Medicine, Revue d'Histoire Moderne et Contemporaine and PLOS as well as in edited collections, she is currently working on three books. She is finishing a monograph on the role of pharmacy in the development and 'democratization'of natural history in sixteenth-century Italy; and she is beginning to write up a second one on the ways in which a public health initiative established by the Republic of Venice in its maritime state and Levantine emporia where it had diplomatic presence became a platform for the exchange of knowledge and materials between Christian Europe and the Islamicate Near East, silently supporting the development of key intellectual trends in Europe such as antiquarianism and natural history. In relation to this second project, thanks to generous funding from the National Endowment for the Humanities, she is also preparing a critical edition and English translation of the only extant memoir of a Venetian diplomatic physician working in Damascus in 1542-43.

Ana Struillou is a Past and Present Fellow at the Institute of Historical Research (London), interested in all things material and mobile. Her work explores the movement of artefacts and commodities between the Ottoman and non-Ottoman Maghrib, the Iberian Peninsula, and the French Monarchy across the early sixteenth and seventeenth centuries. She is currently working on the publication of her first monograph titled Across the Material Sea: Travelers and their Things across the Early Modern Mediterranean which explores the material culture of travelers across the Western Mediterranean (sixteenthseventeenth centuries). Dr. Struillou holds a doctorate from the European University Institute of Florence (2023). Her PhD dissertation entitled "Objects on the Move: The Material Culture of Travel in the Western Mediterranean (1530-1640)", offered the first sustained examination of the materiality of movement in the early modern Mediterranean. Her previous research project, at Exeter College (University of Oxford) focused on the material culture of Morisco diplomacy across early modern France and Spain. Her work has appeared in the Mediterranean Historical Review and E-Spania, among other academic venues, as well as in various public history fora. In addition to her individual research, she actively collaborates on several international projects at both the European and national levels, focusing on Christian-Muslim relations and early modern material culture.

E-mail: valentina.pugliano@unive.it, ana.struillou@sas.ac.uk
Affiliation: Ca' Foscari University of Venice, Institute of Historical Research, London

S.4.7. Astronomy in Practice: Instruments, Texts, and Cross-Cultural Dialogues

The Unsanctified Space: Observatories in Islamic Lands

Author: Mostafa Yavari[1]

1 *University of Tehran, Institute for the History of Science*

The two major observatories built in Samarkand and Istanbul during the 15th and 16th centuries, as the last significant observatories in the Islamic world, shared a common fate: both were destroyed. However, the circumstances of their destruction and the historical narratives surrounding their demise differ. The reasons behind their destruction appear to remain shrouded in ambiguity and popular stories, but perhaps local historical texts can provide more information about these destructions.

The Samarkand Observatory was built by Ulugh Beg in 1420. During his rule over Samarkand, this observatory was able to carry out an observational program, and its results led to the writing of astronomical tables. However, with the death of Ulugh Beg, the observatory lost its momentum, was forgotten, and eventually fell into ruin. In less reliable stories, there is always talk of the observatory's destruction after Ulugh Beg's death, as if the narrators of these stories believe that the observatory only survived with Ulugh Beg's power and had to be destroyed after that. Similar popular folklore can be seen about the end of the Maragheh Observatory as well. Interestingly, these stories do not mention Ulugh Beg's madrasa, where the same astronomical studies were taught, and the madrasa still stands today.

The Istanbul Observatory was also built by order of Sultan Murad III in 1575 and was destroyed by his order only five years later. The main reasons given for the destruction of this observatory are religious objections and political rivalries. The appearance of the 1577 comet and the outbreak of plague are mentioned as factors that intensified these objections and the final cause.

In Istanbul, too, after the destruction of the observatory, astronomical studies continued to be taught in madrasas, and no madrasas were destroyed. However, the observatory, as an unsanctified space, was easily removed. What distinguishes the observatory from other places of this era is the view that exists about it. The experience of all three observatories of Maragheh, Samarkand, and Istanbul shows that these observatories did not have social, religious, or popular acceptance and were able to survive only as long as they had the support of powerful patrons. The funding for these institutions, similar to the Maragheh Observatory, came from endowments. Does this lack of acceptance stem from the nature of their scientific pursuits, or was curiosity about divine secrets and the heavens not very acceptable at all? Were these institutions, in fact, considered unsanctified places in the minds of the people?

To answer these questions, we have tried to find an answer not from the astronomical texts of scholars, but from local histories and secondary reports that, in addition to reporting historical events, have combined popular analyses, stories, and folklore.

Keywords: Samarkand observatory, Istanbul observatory, Observatories in Islam

Short Biography: Mostafa Yavari is a Ph.D. candidate in the history of astronomy at the University of Tehran. His research focuses on astronomical tables and mathematical astronomy in the medieval Islamic world. Yavari's research interests include ancient Babylonian and Islamic astronomy, medieval astronomical instruments, astronomical tables, and their connections to astronomical models. He is a contributing author to the history of science entries in the Encyclopedia of the Islamic World
E-mail: mostafa.yavari@ut.ac.ir
Affiliation: University of Tehran, Institute for the History of Science

S.4.7. Astronomy in Practice: Instruments, Texts, and Cross-Cultural Dialogues

An Astronomical Summa of the Safavid Era: Tashrīḥ al-Aflāk by Bahāʾ al-Dīn al-ʿĀmilī

Author: Kaveh Niazi[1]

1 *Stanford Online High School*

The Lebanese born scholar Bahāʾ al-Dīn al-ʿĀmilī (953/1547-1030/1621), known as Shaikh Bahāʾī, was a key cultural figure of the Safavid court of Shah ʿAbbās I (995/1587-1038/1629). Among his most popular scientific works was *Tashrīḥ al-aflāk* ("Explanation of the Celestial Spheres"), which has survived in numerous copies to the present day. The author identifies this short work as a "summary" at several points, while excusing himself from presenting a full explication of the subject matter at hand. Indeed, the highly condensed presentation of the discussions in *Tashrīḥ al-aflāk*, the absence of many standard topics, such as the planetary anomalies, and many missing astronomical parameters (such as the angular motions for the various orbs) were likely what led the author to subsequently compose a commentary for the work. Bahāʾī's preoccupation with astronomy is reflected in the fact that he wrote commentaries, as well, on other works, including al-Mulakhkhaṣ fī al-hayʾa al-basīṭa ("The Summary of plain hayʾa,") by Maḥmūd Jaghmīnī (fl. early 13th century CE) and al-Tadhkira fī ʿilm alhayʾa ("Memoir on the Science of hayʾa,"), by Naṣīr al-Dīn Ṭūsī (d. 672/1274). The present study examines *Tashrīḥ al-aflāk* in view of the influence of his predecessors, particularly Jaghmīnī and ʿAlī Qūshjī (d. 879/1474), while highlighting some of the unexpected features of the Tashrīḥ al-aflāk, as well.

Keywords: Hay'a, al-'Amili, Shaikh Baha'i, Safavid

Short Biography: A native of the San Francisco Bay Area, Kaveh Niazi received a Ph. D. in applied physics from the University of California, Berkeley, in 1995. Subsequent to working as an engineer in Silicon Valley, he returned to graduate school to receive a Ph.D. in the history of science from Columbia University, New York, in 2011. His research interests include the history of astronomy, Iranian history, and the intellectual history of the Ilkhan era. He published his graduate research on the astronomical works of Qutb al-Din Shirazi in 2014 under the title "Qutb al-Din Shirazi and the Configuration of the Heavens." He published his study of Nasir al-Din Tusi's Risala-yi Mu'iniya, which included a new edition of Tusi' s work and the first English translation of an astronomical work in Persian, in 2022 under the title "A Princely Pandect on Astronomy."In 2024, "A Princely Pandect on Astronomy"was recognized with an honorable mention by the Parviz Shahriari Book Award for History of Mathematics, Science and Technology.
E-mail: kfniazi@stanford.edu
Affiliation: Stanford Online High School

P.4.2. Inside/Outside the 'Box': Boundaries, Materiality and Affect in the Early Modern Home

Inside/Outside the 'Box': Boundaries, Materiality and Affect in the Early Modern Home

Authors: Christine Quach[1]; Nur'ain Taha[2]

1 *University of Maryland*

2 *Utrecht University*

Panel Description: Boxes are often thought of as containers to enclose, conceal or protect items. This panel brings together three case studies of objects located within the interior spaces, found in the early modern Dutch Republic, across the Indian Ocean, and in Sri Lanka, all of which constitute personal objects with which their owners and makers maintain an intimate connection.

Objects located within these private spaces have often been analysed through the lens of fashion, decorative types, time period, or their users. With the advent of sensory history and the history of emotions, we can adopt new approaches to reconstruct how individuals, from makers to owners, would have physically encountered and interacted with objects and their materiality.

In this panel, we seek points of commonality in affective engagement with personal objects, even though our objects are found in distinct cultural contexts. By taking a closer look at the qualities that make up a 'box', these case studies demonstrate how boundary-making and materiality became significant in the eye of the beholder. In this way, we propose to reassess the 'box'as a concept and as an effective form in early modern interior spaces.

References:

Appadurai, Arjun. The Social Life of Things : Commodities in Cultural Perspective. Cambridge University Press, 1986.
Bachelard, Gaston. The Poetics of Space. Beacon Press, 1969.
Brittenham, Claudia. Vessels: The Object As Container. Oxford University Press, 2019.
Broomhall, Susan. Spaces for Feeling : Emotions and Sociabilities in Britain, 1650-1850. Routledge, 2015.
Gerritsen, Anne, and Giorgio Riello. The Global Lives of Things : The Material Culture of Connections in the Early Modern World. Routledge, 2016.
Musillo, Marco. "Exchanging Something Between Europe and Asia: Valuable Gifts or Empty Boxes?" European History Quarterly 50, no. 3 (2020): 524–34.
Razzall, Lucy. Boxes and Books in Early Modern England. Cambridge University Press, 2021.
Um, Nancy. "Nested Containers for Maritime Journeys: Tools of Aromatic Diplomacy around the Late Seventeenthand Early Eighteenth-Century Indian Ocean."West 86th 25, no. 2 (2018): 199–223.

Presenter: Christine Quach, Doctoral Candidate, University of Maryland

Title of the paper: Capturing Time: Temporal Shifts in Boxed Enclosures

Beds have a notably box-like character and appearance in the seventeenth century which raises questions about the relationship between the inside of the "box"and the exterior world. If a person is sleeping inside the box-like confines of a bed, how does their temporality differ from the one on the outside? Is there any form of interaction between the interior of the bed and the room on the exterior? And by extension, could temporality be implicated in boxes in general, as their contents are contained at one moment and sealed off from the business of the world? This paper explores the temporal interactions between the objects inside boxes and their exterior environment. I examine how items kept in boxes play a key role in the ways in which temporality manifests inside the confined space. As temporalities may shift based on a box's content, the boundaries between the interior of the box and its exterior become blurred. Using phenomenological concepts, I explore how the enclosed space becomes permeable depending on the state of the object contained and the box's wall material. As the border between interior and exterior dissolves, temporality takes on a more complex meaning for the enclosed object.

Presenter: Nur'Ain Taha, Doctoral Researcher, Utrecht University

Title of the paper: Whalebone Wonders: Materiality, Craft and Knowledge of Baleen Boxes in Early Modern Netherlands

At the start of the Dutch whaling industry in the early seventeenth century, the lack of knowledge in hunting and processing whales led to various attempts to find ways in maximising profits from this dangerous and high risk trade. From the covered whale oil to the utilisation of whalebone, the Noordse Compagnie undertook extensive efforts, collaborating with merchants and craft makers to maximise the commercial potential of various whale by-products. This paper examines the seemingly simple baleen boxes not merely as functional containers but as objects that are

embedded with knowledge. How has the expansion of the Dutch whaling industry affected the knowledge and understanding of these marine mammals? How has encounters with whale byproducts affected the Dutch craft making industry? The shaping of the baleen into bodies of objects required craft makers to understand not only its material properties, and develop new techniques to fully exploit its potential. It also entailed various processes of administration such as regulation of patents. Through the materiality of the baleen boxes, I explore not only the knowledge of craft making, but also the long history of the Dutch whale industry in the early modern period as reflected in these objects.

Appendix: List of Images

Keywords: Box, boundaries, temporality, materiality, affect, knowledge

Short Biography: Christine Quach is a doctoral candidate at the University of Maryland, College Park, where she specializes in early modern northern Europe. Her current work primarily focuses on the interactions between people and space as mediated by the objects they kept around their home. Her dissertation project explores the temporal connotations associated with boxes owned and used by women in the Netherlands and England during the late seventeenth century. As the 2025–27 Kress Institutional Fellow in residence at Leiden University, she scours archival materials and regional museum collections for signs of women' s boxes and their personal relationships to these ubiquitous household items in an effort to uncover how these objects ultimately paralleled key milestones within a woman's lifetime.

Nur'Ain Taha (Ain) is a doctoral researcher at the Department of History and Art History, Utrecht University, The Netherlands. Since 2023, she has been a part of the NWO-Vici 'The Dutch Global Age' project, 2023-2028. Her research within this project focuses on the global materiality and makings of objects that connects the Low Countries and the world beyond Europe by peeling their layers to trace the origins of their raw materials, the techniques of their making as well as the identities of their makers. How did Netherlandish and non-European makers make sense of the foreign in various aspects –from their forms, materials, and techniques? Through an investigation of the materials and the reconstruction of these objects, her project seeks to understand the process of (re)making, as well as the production and exchange of knowledge that took place within them. With an object-centred approach, she also hopes to unravel the complexities embedded in the histories of these objects and highlight the history of the invisible makers from the world beyond Europe.

Previously, Ain completed an MA in Asian Studies (Arts, History and Culture) at the University of Leiden and a BA in Arts (Southeast Asian Studies) from the National University of Singapore. Her interest in looking at the global trajectories of objects and the interconnections between Asia and Europe was very much influenced by her work experience working in the arts, heritage, and museum industry in Singapore. As a former Programmes Manager at the Malay Heritage Centre, her work focused on creating content and programmes that engage both local and regional communities, artists, and academics. Ain's other research interests include the history of collecting in colonial empires as well as tracing the history of diplomatic objects exchanged between Europe and the Malay Archipelago in the early modern period.

E-mail: n.b.taha@uu.nl

Affiliation: Utrecht University

Scientiae 2025: Istanbul,

16-19 September, Annual Conference

Programme

Tuesday 16 September 2025

Registration & Welcome Coffee-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (11:00-12:15)

Opening Remarks-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (12:15-12:45)

Brief Pause-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (12:45-13:00)

Keynote Lecture: Allegorists, Alchemists and Iatrochemists in the Early Modern Ottoman Empire-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (16 Sept 2025, 13:00-14:00)

time	title	presenter
13:00	Allegorists, Alchemists and Iatrochemists in the Early Modern Ottoman Empire	Feza Günergun (Professor emerita of History of Science)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (14:00-14:30)

Round Table-Translation of Scientific Texts into Ottoman Turkish in the Early Modern Era-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (16 Sept 2025, 14:30-16:00)

time	title	presenter
14:30	Translation of Scientific Texts into Ottoman Turkish in the Early Modern Era	Ekmeleddin İhsanoğlu (Professor Emeritus of History of Science, Honorary President of the Turkish Society for the History of Science) Kaan Üçsu (Istanbul University) Ahmet Tunç Şen (Columbia University)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (16:00-16:15)

S.1.1. Staging Knowledge: Performance, Play and Cultural Adaptation-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (16 Sept 2025, 16:15-17:45)

Chair: Samuel Gessner

time	title	presenter
16:15	“This Under Globe”: Proprioceptive Worldmaking in Shakespeare’s Public Theaters	Adam Rzepka (Montclair State University)
16:35	Cultural Encounters and Adaptations in the Late Seventeenth-Century Ottoman Empire: Theater, Portraiture, and Knowledge Transmission	M. Fatih Çalışır (Istanbul University Institute for Islamic Studies)
16:55	Playing at the World: Students, Chess Knowledge, and Its Global Dimension	Matthias Roick (Institute of Philosophy and Sociology, Polish Academy of Sciences)

S.1.2. Reading, Collecting, and Translating Medicine across Religious and Linguistic Boundaries-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (16 Sept 2025, 16:15-17:45)

Chair: Valentina Pugliano

time	title	presenter
16:15	The Ottoman Reception of Matthioli's De Materia Medica: Knowledge Transmission and Pharmacobotanical Adaptation	Mustafa Yavuz (Istanbul Medeniyet University)
16:35	A Non-Muslim Source of Ottoman Medicine: The Case of Garshuni Manuscript in Mardin	Kadir Çelik (Istanbul Medeniyet University and Izmir Ege University)
16:55	What's in a Book Collector's Mind? Delving into the Renaissance Medical Library of Laurentius de Rubeis	Dina Bacalexi (Centre national de la recherche scientifique)

S.1.3. Echoes of Antiquity: Myth, Philosophy, and the Stars in Early Modern Thought-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (16 Sept 2025, 16:15-17:45)

Chair: Divna Manolova

time	title	presenter
16:15	Leopardi as a Byzantine Scholar, Translator of George Gemistos Plethon	Giulia Beccaria (Italian Institute for Historical Studies - National and Kapodistrian University of Athens)
16:35	Ascensio ad Deum, a Neoplatonic Program in Renaissance Disguise: The Reception of the Teachings of Ficino and Pico in H. C. Agrippa von Nettesheim's De Occulta Philosophia	Monika Frazer-Imregh (Károli University)
16:55	The Cycle of Seven Planets – Iconography and Applications	Agata Starownik (University of Warsaw)

Free Time / Transfer to Welcome Reception (self-arranged)-From Vezneciler Metro Station (close to the conference venue at Istanbul University), take the M2 metro line towards Şişhane. Exit at Şişhane station and walk approximately 3 minutes along Galip Dede Street to reach the Orient-Institut Istanbul in Beyoğlu. (17:45-19:00)

Welcome Reception at Orient-Institut Istanbul-Orient-Institut Istanbul, Şahkulu Mah., Galip Dede Cad. No. 65, 34421 Beyoğlu – İstanbul, Türkiye (19:00-21:30)

Wednesday 17 September 2025

P.2.1. The Concept of the Sciences in Bernard de Fontenelle's Philosophy-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (17 Sept 2025, 09:15-10:45)

Chair: Sophie Serra

time	title	presenter
09:15	The Concept of the Sciences in Bernard de Fontenelle's Philosophy	Daniel Špelda (Masaryk University) Eszter Kovács (Vrije Universiteit Brussel) Dagmar Pichová (Masaryk University Brno)

S.2.1. The Interaction of Knowledge, Collections, and Instruments: From Encyclopedic Arrangements to Astronomical Simulations-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (17 Sept 2025, 09:15-10:45)

Chair: Ahmet Tunç Şen

time	title	presenter
09:15	Instruments of Insight: Revealing the Tangible Dialogue Between Books and Instruments in Libraries	Samuel Gessner (CIUHCT, University of Lisbon)
09:35	Simulating Lunar Motions: Gıyās ed-Din Ibn Fath-Allah al-Kātib al-Baghdādī's Heart-Shaped Diagram in the Context of Ottoman Volvelles	Gaye Danışan (Istanbul University)
09:55	The Encyclopedic Nature of the Collection of Kunstkammer of Emperor Rudolf II in Prague	Jindra Kubickova (Charles University) Zuzana Vařáková (Charles University)

S.2.2. Text and Transmission: Interpretive Practices and Scholarly Networks in Early Modern Europe-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (17 Sept 2025, 09:15-10:45)

Chair: Gerhard Wiesenfeldt

time	title	presenter
09:15	Rooted or Planted? The Power of Etymology in J. A. Comenius and Early Modern Culture of Knowledge	Lenka Řezníková (Institute of Philosphy, Czech Academy of Sciences, Prague)
09:35	News and Prophecy Between Upper Hungary and Amsterdam: Mikuláš Drabík, Jan Amos Comenius and Learned Communication	Vladimír Urbánek (Institute of Philosophy, Czech Academy of Sciences)
09:55	Early Critics of the Rosicrucian Manifestos: Budovec and Libavius	Jiri Michalik (Palacky University)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (10:45-11:00)

P.2.2. Making Science Global: Examples from Mesmerism and Newtonianism-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (17 Sept 2025, 11:00-12:00)

Chair: Stefano Gulizia

time	title	presenter
11:00	Gottfried Kirch's Observational Journals (1677–1710) and the Secrets of Early Modern Astronomical Observations	Justyna Rogińska (Institute for the History of Science of the Polish Academy of Sciences)
11:20	Sobieski Moves the Sun. Poems Dedicated to King Jan III of Poland by Johannes Hevelius's Correspondents	Maciej Jasiński (Polish Academy of Sciences)

S.2.3. From Observations to Representations: The Cultural Lives of Astronomy-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (17 Sept 2025, 11:00-12:00)

Chair: Vladimír Urbánek

time	title	presenter
11:00	Making Science Global: Examples from Mesmerism and Newtonianism	Derya Tarbuck (Bahcesehir University) Kapil Raj (Ecole des hautes études en sciences sociales) Rob Iliffe (Oxford University)

S.2.4. Cross-Cultural Perspectives on Knowledge, Belief, and Cultural Imagination-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (17 Sept 2025, 11:00-12:00)

Chair: Matthijs Jonker

time	title	presenter
11:00	The Stone-Eaters: Lithophagy and Scholarly Fantasies of Ascetic Diets in Late Imperial China	Brian Li (University of Cambridge)
11:20	Non-Western Science and Arts: A View from Latin America Through the Works of J.M. Briceño Guerrero	Juan Acevedo (University of Lisbon)

Lunch & Optional visit to the IU Turkish Hamam Culture Museum, Rıdvan Çelikel Archaeology Museum or IU Rare Books Library Collections (Registration Required) (12:00-14:30)

Lunch: Istanbul University Professors' House (Profesörler Evi), Beyazıt Campus.

Optional Visits (Registration Required)
• II. Bayezid Turkish Bath Culture Museum (II. Bayezid Türk Hamam Kültürü Müzesi) — Balabanağa Mah., Kimyager Derviş Paşa Sok. No:2, Beyazıt.
• Rıdvan Çelikel Archaeology Museum (İstanbul Üniversitesi Rıdvan Çelikel Arkeoloji Müzesi) — Mimar Kemalettin / Ordu Cad. (Vezneciler area), Istanbul University.
• IU Rare Books Library Collections (Nadir Eserler Bölümü) — Istanbul University Main Library, Rare Books Section, Beyazıt Campus.

P.2.3. Cross-Cultural-ness of Astronomical Instrumentation Reconsidered-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (17 Sept 2025, 14:30-16:00)

Chair: Taha Yasin Arslan

time	title	presenter
14:30	Cross-Cultural-ness of Astronomical Instrumentation Reconsidered	Afra Akyol (Istanbul Medeniyet University) Beyzanur Topçuoğlu (Istanbul Medeniyet University) Feyzanur Şaşmaz Akyüz (Istanbul Medeniyet University) Silke Ackermann (History of Science Museum, Oxford) Taha Yasin Arslan (Istanbul Medeniyet University)

S.2.5. Intellectual Mobility, Commerce, and Academic Networks-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (17 Sept 2025, 14:30-16:00)

Chair: Luís Campos Ribeiro

time	title	presenter
14:30	Gift-Economy and the Jesuit Management of Relics in the Asian Mission	Stefano Gulizia (Ca' Foscari University in Venice)
14:50	Intellectual Mobility and the Dutch Levant Company: The Republic of Letters in the Ottoman World	Mai Lootah (Rice University)
15:10	Science, Commerce, and the Circulation of Knowledge: The James Watt and Matthew Boulton Partnership in 18th-Century Knowledge Networks	Nihal Özdemir (Fatih Sultan Mehmet Vakıf University)

S.2.6. Wonder and Correction: Interrogating Knowledge Across Early Modern Geographies-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (17 Sept 2025, 14:30-16:00)

Chair: Juan Acevedo

time	title	presenter
14:30	A Polyglot Parrot in Baroque Rome	Matthijs Jonker (Utrecht University)
14:50	Between Wonder and Skepticism: Ottoman Engagement with Medieval Islamic Cosmographies	Feray Coşkun (Özyeğin University)
15:10	Correcting Arctic Knowledge. Uncertain Islands and Animals in Far North	Djoeke van Netten (University of Amsterdam)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (16:00-16:15)

Keynote Lecture: Is It Time to Abandon 'Islamic Science'? Genres, Languages, Centers and the Problem of Periodization in Light of Recent Scholarship-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (17 Sept 2025, 16:15-17:15)

time	title	presenter
16:15	Is It Time to Abandon 'Islamic Science'? Genres, Languages, Centers and the Problem of Periodization in Light of Recent Scholarship	Harun Küçük (University of Pennsylvania)

Participants gather in Hall of Honor (Şeref Holü) prior to Yenikapı Shipwrecks visit-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (17:15-17:30)

Optional visit to the Yenikapı Shipwrecks (Limited to 30 people; Registration required) (17:30-19:00)

Thursday 18 September 2025

P.3.1. Together, with, against: Building and Reassembling Astronomical Traditions in Three Different Contexts-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (18 Sept 2025, 09:15-10:45)

Chair: Matthieu Husson

time	title	presenter
09:15	Together, with, against: Building and Reassembling Astronomical Traditions in Three Different Contexts	Divna Manolova (Ghent University) Florence Somer (Observatoire de Paris) Sophie Serra (Lund University)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (10:45-11:00)

P.3.2. Prognostication, Fortune, and Risk: How Early Modern People Navigated Material Fortunes through Almanacs and Astrological Consultations-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (18 Sept 2025, 11:00-12:30)

Chair: Florence Somer

time	title	presenter
11:00	Prognostication, Fortune, and Risk: How Early Modern People Navigated Material Fortunes Through Almanacs and Astrological Consultations	Jakub Ochocinski (European University Institute) Luís Campos Ribeiro (University of Lisbon) Tunahan Durmaz (European University Institute)

S.3.1. Sacred Authority and the Politics of Faith in Early Modern Cultural Landscapes-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (18 Sept 2025, 11:00-12:30)

Chair: Monika Frazer-Imregh

time	title	presenter
11:00	Kepler, Witchcraft, and the Law	Lisa Klotz
11:20	Light-Dark and Death Divine: "Bad Mariology" in Colonial Mexico	Zachary Schwarze (Rice University)
11:40	From Prophets to Martyrs in the First Two Generations of Quakerism, 1650s-1690s	Erin Bell (University of Lincoln)

S.3.2. Intellectual Lineages and Methodological Innovations in Early Modern Studies-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (18 Sept 2025, 11:00-12:30)

Chair: Feray Çoşkun

time	title	presenter
11:00	Dynasties and Networks: Knowledge in Academic Families	Gerhard Wiesenfeldt (University of Melbourne)
11:20	Opinions and Experiments in Antonio Gómez Pereira's Antoniana Margarita (1554): Digression and History in Natural Philosophy	Karine Durin (University of Nantes)
11:40	Counting the Bees: A Data-Driven Investigation into Early Modern British Thought (1605-1776)	Thijs Ossenkoppele (University of Amsterdam)

Lunch & Optional visit to the IU Turkish Hamam Culture Museum or Rıdvan Çelikel Archaeology Museum (Registration Required) (12:30-14:30)

Lunch : Grand Washington Hotel, Kemal Paşa Gençtürk Caddesi & Ağa Yokuşu Sok. No:6, Kemal Paşa, Ağa Ykş. No:5, 34134 Fatih/İstanbul

P.3.3. Cultures of Trust and Global Connections in Early Modernity. Remarks on Pacts and Agreements in Western and Central-Eastern European Texts-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (18 Sept 2025, 14:30-16:00)

Chair: Matthias Roick

time	title	presenter
14:30	Cultures of Trust and Global Connections in Early Modernity. Remarks on Pacts and Agreements in Western and Central-Eastern European Texts	Filippo Marchetti (University of Pisa) Lorenzo Fancello (University of Pisa) Luisa Brotto (University of Pisa) Matthias Roick (Institute of Philosophy and Sociology of the Polish Academy of Sciences)

P.3.4. Ways of Knowing Water in Early Modern Europe-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (18 Sept 2025, 14:30-16:00)

Chair: Andre Araujo

time	title	presenter
14:30	Ways of Knowing Water in Early Modern Europe	David Gentilcore (Ca' Foscari University of Venice) Oscar Schiavone (Ca' Foscari University of Venice) Samuel Barney Blanco (Ca' Foscari University of Venice)

W.3.1. Digital Humanities and Artificial Intelligence: Methodological Developments in the Study of Astronomical Sources-Istanbul University, Faculty of Letters, Lecture Hall (D328) (18 Sept 2025, 14:30-16:00)

time	title	presenter
14:30	Digital Humanities and Artificial Intelligence: Methodological Developments in the Study of Astronomical Sources	Matthieu Husson (LTE-Observatoire de Paris, CNRS) Somkeo Norindr (LTE-Observatoire de Paris)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (16:00-16:15)

Round Table-On a Personal Note: Handwritten Knowledge Transfer in Ego-Documents-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (18 Sept 2025, 16:15-17:45)

Chair: Matthias Roick

time	title	presenter
16:15	On a Personal Note: Handwritten Knowledge Transfer in Ego-Documents	Alicja Bielak (Polish Academy of Sciences, Institute of Philosophy and Sociology) Gábor Förköli (Polish Academy of Sciences, Institute of Philosophy and Sociology) Matthias Roick (Institute of Philosophy and Sociology, Polish Academy of Sciences) Sooyong Kim (Koç University)

Participants gather in Hall of Honor (Şeref Holü) prior to Yenikapı Shipwrecks visit-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (17:45-18:00)

Optional visit to the Yenikapı Shipwrecks (Limited to 30 people; Registration required) (18:00-19:30)

Friday 19 September 2025

S.4.1. Medical and Natural Knowledge Networks in the Early Modern Ottoman and European Worlds-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (19 Sept 2025, 09:15-10:45)

Chair: Stefano Gulizia

time	title	presenter
09:15	Recording Melancholic Deaths: Necrologies and Healthcare in Early Modern Venice and Padua	Jessica Hogbin (Syracuse University)
09:35	Rembert Dodoens's Construction of an Epistemology of Observational Experience: A Case in Sixteenth-Century Medical Empiricism	Zongbei Huang (Tsinghua University)
09:55	An Evaluation for the Understanding of Rational Sciences in the Context of Natural Sciences Works in the Classical Period Ottoman	Nazime Özgür Tamdoğan (Ankara University)

S.4.2. The Movement of Science: Optical, Astronomical, and Horological Knowledge Across Cultures-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (19 Sept 2025, 09:15-10:45)

Chair: Gaye Danışan

time	title	presenter
09:15	Light-Colour Relationship in Taqi al-Din and His Primary Source Ibn al-Haytham	Sena Aydın (Istanbul Medeniyet University)
09:35	The Armillary Sphere in Molla Ali's Risâle-i Meyyâl: A 17th-Century Latin-to-Ottoman Turkish Translation and Its Structural-Functional Analysis	S. Ceren Özdemir (Independent Researcher)
09:55	Islamic Clepsydrae in the Christian Spain During the Late Middle Ages	Víctor Pérez-Álvarez (Independent Researcher)

S.4.3. Embodied Knowledge: Applied Sciences and Material Practices in Ottoman and Arabic Traditions-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (19 Sept 2025, 09:15-10:45)

Chair: Nazan Karakaş Özür

time	title	presenter
09:15	Ways of Knowing: Exploring Science and Practice in the Early Modern Arabic Notion of al-Ṣināʿa	Sarah Sabban (Lebanese American University)
09:35	From the Mine to the Market: A History of Silver in the Eighteenth-Century Ottoman Empire	Deren Ertas (Harvard University)
09:55	Cross-Cultural Knowledge Transfer in Military Reform: The Impact of Rochefort's 1717 Proposal on the Ottoman Empire	Alper Atasoy (Independent Researcher)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (10:45-11:00)

S.4.4. Medicine, Morality, and the Supernatural: Cultural Narratives of Health in Premodern Societies-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (19 Sept 2025, 11:00-12:30)

Chair: Vladimír Urbánek

time	title	presenter
11:00	The Divine and Demonic Beverage: Antonio Gazio's Medical Treatise on Wine and Beer	Dávid Molnár (University of Tokaj)
11:20	Sacred Healing: The Interplay of Magic and Religion in Georgian Folk Medicine	Salome Gviniashvili (Tusheti Protected Landscape)
11:40	The Science of Aging: Metaphors, Medicine and the Quest for Vitality in Early Modern England	Elisa Ramazzina (University of Insubria)

S.4.5. Reframing Knowledge: Critical Approaches to Historiography, Evidence, and Representation-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (19 Sept 2025, 11:00-12:30)

Chair: Kaan Üçsu

time	title	presenter
11:00	How Not to Contextualise Materialism in Ottoman Historiography	Utku Can Akın (University of Toronto)
11:20	The Graphic (Re)Configuration of Historical Evidence: The Collective Construction of Diplomatics in Eighteenth-Century Germany	Andre Araujo (University of Brasilia)
11:40	A Critical Historiography of the Intersection Between History of Architecture and Science in the Islamic World	Gul Kale (Carleton University)

S.4.6. Sparks of Knowledge: Early Electrical Science and Mathematical Perspectives-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (19 Sept 2025, 11:00-12:30)

Chair: Meltem Kocaman

time	title	presenter
11:00	Giovanni Poleni and the Early Development of Electrical Science in Northern Italy	Lorenzo Voltolina (Università di Padova)
11:20	Scientific Instruments of the 18th-Century Electrical Phenomena from a Philosophical Perspective: An Analysis in the Light of Sturgeon's Lectures on Electricity	Tuğçe Esenduran (Istanbul Technical University)
11:40	Leibniz on the Representation of Geometrical Objects: The Role of Algebra	Alessia Salierno (Università degli Studi di Milano)

W.4.1. How Can We Use the Astrolabe in Education to Inspire a New Generation?-Istanbul University, Faculty of Letters, Lecture Hall (D328) (19 Sept 2025, 11:00-12:30)

time	title	presenter
11:00	How Can We Use the Astrolabe in Education to Inspire A New Generation?	Willem de Graaf (Utrecht University)

Lunch & Optional visit to the IU Turkish Hamam Culture Museum, Rıdvan Çelikel Archaeology Museum or IU Rare Books Library Collections (Registration Required)

Lunch: Grand Washington Hotel, Kemal Paşa Gençtürk Caddesi & Ağa Yokuşu Sok. No:6, Kemal Paşa, Ağa Ykş. No:5, 34134 Fatih/İstanbul (12:30-14:30)

P.4.1. Medicine and Slavery in the Early Modern Mediterranean World-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (19 Sept 2025, 14:30-15:30)

Chair: Mustafa Yavuz

time	title	presenter
14:30	Medicine and Slavery in the Early Modern Mediterranean World	Valentina Pugliano (Ca' Foscari University of Venice) Ana Struillou (Institute of Historical Research)

P.4.2. Inside/Outside the 'Box': Boundaries, Materiality and Affect in the Early Modern Home-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 9) (19 Sept 2025, 14:30-15:30)

Chair: Matthijs Jonker

time	title	presenter
14:30	Inside/Outside the 'Box': Boundaries, Materiality and Affect in the Early Modern Home	Christine Quach (University of Maryland) Nur'ain Taha (Utrecht University)

S.4.7. Astronomy in Practice: Instruments, Texts, and Cross-Cultural Dialogues-Istanbul University, Faculty of Letters, Lecture Hall (Amfi 8) (19 Sept 2025, 14:30-15:30)

Chair: Florence Somer

time	title	presenter
14:30	The Unsanctified Space: Observatories in Islamic Lands	Mostafa Yavari (University of Tehran)
14:50	An Astronomical Summa of the Safavid Era: Tashrīḥ al-Aflāk by Bahāʾ al-Dīn al-ʿĀmilī	Kaveh Niazi (Stanford Online High School)

Coffee Break-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (15:30-15:45)

Conference Closing and Annual General Meeting-Istanbul University, Faculty of Letters, Main Hall (Kurul Odası) (15:45-16:45)

Conference Photoshoot & Gathering in Hall of Honor (Şeref Holü) before proceeding to the Istanbul University Observatory for Closing Reception-Istanbul University, Faculty of Letters, Hall of Honor (Şeref Holü) (16:45-17:30)

Tour of the Historical Telescope, Gleissberg Astronomical Collection, Planetarium Show-Istanbul University Observatory Research and Application Center (17:30-19:00)

Evening Reception – Istanbul University Observatory Garden-Istanbul University Observatory Research and Application Center (19:00-21:30)