



Press Release

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Ancient Skies, New Discoveries: Max Planck Research Group “ASTRA” Traces the History of Astral Knowledge across Asia

How can we disentangle the intricate web of astral knowledge that has shaped Asia for millennia? From the precision of mathematics and astronomy to the practices of divination and ritual, this vast and complex field demands nuanced inquiry. The Research Group “Astral Sciences in Trans-Regional Asia” (ASTRA), based at the Max Planck Institute for the History of Science (MPIWG) in Berlin, seeks to unravel this complexity through innovative approaches in the history and philosophy of science. The group is led by Anuj Misra, Professor of the History of Science and Knowledge at the Freie Universität Berlin, with expertise in pre-modern Islamicate and Sanskrit astronomy.

ASTRA employs a “trans-regional” perspective to trace the circulation of astral sciences in Asia, with a particular focus on the first and second millennia CE. Researchers will examine the interplay of astral practices, religious beliefs, scientific theories, and cultural norms. By mapping the movement of these practices across trade routes, intellectual networks, and oral traditions, the group aims to illuminate the dynamic evolution of astral knowledge across diverse Asian societies within the Eurasian expanse. This broad approach will reveal how knowledge traversed historical and geographical boundaries, mutually influencing both the knowledge itself and the sociocultural frameworks of its reception.

“The expansive nature of ASTRA’s research aligns seamlessly with the MPIWG’s inclusive mission, making it the ideal home for this ambitious project,” says Misra. “By transcending Eurocentric paradigms, the MPIWG provides ASTRA with a unique platform to foreground subaltern perspectives in the history of science. ASTRA’s work challenges conventional narratives, fostering a more inclusive and nuanced understanding of scientific knowledge production. This approach avoids the pitfalls of both isolationism and conformity, stimulating a more equitable dialogue within the field.”

One of the ongoing projects of ASTRA, “Rolling the Planets, Moving the Heavens,” investigates the intricate relationship between gaming and divination in South Asia. This exploration reveals a dynamic form of “performative astronomy” where celestial knowledge is embedded within gameplay. The gameboard serves as a microcosm of the cosmos, while the act of play becomes a medium for interpreting divine will.

Methodologically, ASTRA employs three key domains to explore the dynamics of astral knowledge in Asian discourses:

“Transmission” examines how astral knowledge has been *communicated* between Asian societies over the course of history. Analyzing linguistic structures, logical frameworks, artistic expressions, and technical skills reveal how these societies conceptualized the heavens, developed celestial models, culturally imbedded their knowledge, and enabled its practical application.

“Translocation” explores how knowledge has been *transported* across space and time, and across diverse Asian geographies and cultures. How has this knowledge transformed with changing formats—from oral to written, manuscript to print? And how has it transcended temporal boundaries through various forms of preservation and adaptation?

“Transcreation” examines how knowledge has been *integrated*, looking at the transformation that occurs when external knowledge encounters new cultural landscapes. How does “foreign” knowledge come to be “localized” within a society’s intellectual and sociocultural environment? This perspective enables the examination of the societal, historical, philosophical, and theological factors that shape knowledge acquisition.

This tripartite framework, though valuable, is neither exhaustive nor exclusive. New pathways of knowledge exchange and transformation may emerge as the group explores the intricate world of astral sciences in trans-regional Asia.

ASTRA began welcoming Postdoctoral Scholars from the summer of 2024, and will extend the invitation to include Pre- and Postdoctoral Fellows, as well as two other Postdoctoral Scholars, from early 2025. The group is also committed to public communication and outreach, and has hired a dedicated Research Communicator to develop novel ways of disseminating its research activity and outputs. A launch event is planned for October 2024; the group will pursue its exciting research program until 2029.

Biography: Anuj Misra

Anuj Misra is Professor of the History of Science and the History of Knowledge at the Freie Universität Berlin and a historian and philosopher of mathematics specializing in the study of pre-modern Islamicate and Sanskrit astronomy. He holds a PhD in mathematics from the University of Canterbury, New Zealand (2016). Prior to joining the MPIWG he was at the University of Copenhagen, Denmark, where he led the projects “Early Modern Exchanges in Sanskrit Astral Sciences” ([EMESAS](#), 2019–21) and “Changing Episteme in Early Modern Sanskrit Astronomy” ([CEEMSA](#), 2021–23). He was previously a Postdoctoral Fellow at the Max Planck Institute for the History of Science (Department I: Structural Changes in Systems of Knowledge, 2018–19).

Selected Publications

- *Learning with Spheres: The Golādhyāya in Nityānanda's Sarvasiddhāntarāja* (Routledge, 2023)
- *The Sanskrit Astronomical Table Text Brahmatulyasāraṇī: Numerical Tables in Textual Scholarship* (with Clemency Montelle and Kim Plofker; Brill, 2020)
- *Science and Society in the Sanskrit World* (edited volume, with Christopher Fleming, Toke Knudsen, and Vishal Sharma; Brill, 2023)

Links

- ASTRA Research Group: <https://www.mpiwg-berlin.mpg.de/research/departments/max-planck-research-group-astra>
- Anuj Misra biography/profile: <https://www.mpiwg-berlin.mpg.de/people/amisra>

About the MPIWG

Founded in 1994, the Max Planck Institute for the History of Science (MPIWG) in Berlin, Germany, is one of the more than 80 research institutes administered by the Max Planck Society. It is dedicated to the study of the history of science and aims to understand scientific thinking and practice as historical phenomena, with projects spanning globally and across eras of human history.

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