Celestial Scripts: A Comparative Study of Astrological Diagrams in Manuscripts from the pre and early Modern Periods

Book of Abstracts

Monday 22 September 2025

Twelve Verses on the Zodiac and Their Diagrams

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A twelfth-century poem in twelve verses introduces its readers to the twelve signs of the Zodiac. Its authorship is attributed to a certain George Hagiotessarakontites, that is George from the Monastery of the Holy Forty Martyrs in Constantinople. As a teacher at the eponymous school, he is known to have written two texts on a fire that occurred in Constantinople and possibly some further school exercises. In this paper I follow the late medieval journey of this poem on the Zodiac through several manuscripts which transmit it independently of its author's name and teaching activity. Quite often, it is found in association with one or more diagrams of cosmological, astronomical, and astrological nature, as for instance in the composite Vatican City, Biblioteca Apostolica Vaticana, ms. gr. 1908 whose sixth quire (16th century) puts together medical astrology, cosmology, a diagram of the universe, the Zodiac poem and narrative and diagrammatic knowledge concerning the sun and the moon. The fourteenth-century Biblioteca Estense Universitaria, ms α. V. 8. 13 joins the poem with a planetary spheres diagram, whereas in the fifteenth-century Biblioteca Estense Universitaria, ms α. W. 3. 17, the Zodiac poem partners with a large-scale geocentric diagram listing relationships between the seasons, the zodiac, the months and the cardinal directions. At the same time, another fifteenth-century codex, Biblioteca Medicea Laurenziana, Plut. 86, Cod. 14 features the poem in a very different context, namely the twelve verses are preceded by a theological diagram and followed both by a circular diagram linking the zodiac and the four elements and a diagram of the Arc of the Covenant. Following late medieval instances of the poem, hopefully will help me elucidate the place of elementary knowledge concerning the zodiac, as well as of the use of the poetic form, in the late Byzantine educational and scholarly environment.

Revisiting the stations of the Moon in Mongol Iran

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The stations of the Moon (manāzil) appear in early astrological traditions across Eurasia, including those of Egypt, India, and China. While handy as a guide for calendrical reckoning, by the medieval period they had largely fallen out of use in southwest Asia. In the Seljuq and Mongol period, however, we begin to see texts and diagrams that are again concerned with the stations of the Moon as a significant element of popular astrology. However, since the time that the zodiac and stations were established in the fifth century BCE, the equinoctial point of the ecliptic had processed significantly, so that the astronomical stations no longer aligned with the astrological zodiac as they had once done. Nevertheless, calendars of the

stations in manuscripts from the thirteenth and fourteenth centuries show the stations aligned with their classical constellations, even as they adjust for the date of solar passage through the stations. This presentation will examine a series of textual and diagrammatic representations of the lunar stations to try and understand the role that they played after their re-emergence into astrological practice.

From Text to Schema: The Visualization of Abū Maʿshar's Astrological History in Persian and Ottoman Chronicles

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This presentation investigates the process by which a textual theory of history was transformed into a visual diagrammatic tradition. It examines how the astrological historical framework established in Abū Maʿshar's *Kitāb al-milal wa-l-duwal* (Book of Religions and Dynasties)—which described history through the cycles of Saturn-Jupiter conjunctions (*qirānāt*)—was later visualized, applied, and adapted in Persian and Ottoman historical chronicles. The research begins by analyzing Abū Maʿshar's text as a set of instructions for generating historical chronology. It then traces the emergence of explicit diagrams in the Persianate tradition, where court historians for the Timurids and Mughals (e.g., in texts like the *Tārīkh-i Alfī*) translated his concepts into elaborate visual schemata. These diagrams served as potent visual arguments, positioning their patrons as the culmination of cosmic cycles and providing a graphic justification for their rule. Finally, the study turns to the Ottoman context, where the office of the Chief Astrologer (müneccimbaşı) operationalized this knowledge. In Ottoman manuals and chronicles, the diagrams became pragmatic tools for statecraft—less symbolic and more functional, used for calculating propitious dates and rationalizing past military and political events through a framework of celestial determinism. By comparing the form and function of these visualized schemata, we wish to prove that the act of diagramming Abū Maʿshar's theory was not neutral. It was a creative act of interpretation that reflected the distinct political and intellectual priorities of the Persian and Ottoman courts, transforming an abstract system into a powerful technology of imperial legitimacy.

Echo of Early Modern Astrology in Late Ottoman Contexts: A Reflexive Exercise on a Manuscript

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This study constitutes a component of ongoing research focused on tracing the circulation of astrological knowledge within a late Ottoman manuscript entitled Menazil-i Kevakib (Mansions of Stars), which remains largely unexplored and for which catalogue information is limited. The manuscript's astrological diagrams and themes reflect elements rooted in early-period traditions; simultaneously, modern astronomical knowledge was recognised and increasingly disseminated in the 19th-century Ottoman intellectual milieu. Yet, the manuscript's content appears predominantly grounded in early astrological knowledge and methodologies. This coexistence suggests an epistemic environment in which two distinct modes of knowledge persisted in parallel, raising significant questions about how a late-period text embodies and reconfigures earlier intellectual heritage. Menazil-i Kevakib is closely tied

to 19th-century transformations in Ottoman manuscript culture. The continued production of manuscripts amid widespread print technology adoption highlights a critical intersection of European influences and classical Islamic heritage within Ottoman astronomy historiography. The authorship remains ambiguous, and catalogue records inadequately capture the manuscript's scope. Originally catalogued in Istanbul University's Rare Books collection, it was later incorporated into the Yıldız Palace collection, though bibliographic records remain with the former. Initial investigations have not identified a copy, complicated by scarce and inaccurate catalogue data. Thus, the limits of archival documentation on Ottoman astronomy are integral to this historiographical inquiry. While the manuscript appears to aim to transmit knowledge from early astrological traditions to a late Ottoman readership, it remains unresolved whether this transmission involves mere replication or specific epistemic choices and historiographical functions. The identification of similar diagrams across manuscripts is a key strength of this intertextual study, providing nuanced insights into the reception of early modern astrology's reception in the late Ottoman period. Building on these findings, this presentation centres on the manuscript's astrology-related diagrams to explore both its astrological content and its role as a knowledge object within Ottoman historiography.

Eclipse Knowledge and Diagrammatic Practices in Halifezâde İsmail Efendi's Ottoman Translation of Jacques Cassini's Astronomical Tables

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This presentation focuses on the eclipse section of the Ottoman Turkish translation of Jacques Cassini's (d.1756) "Tables astronomiques du soleil, de la lune, des étoiles fixes et des satellites de Jupiter et de Saturne" (1740), titled *Tuhfe-i Behîc-i Rasînî Tercüme-i Zîc-i Kasînî* (The Translation of Cassini's Astronomical Tables: A Gift to the Honorable Rasînî), translated by Çınarî Halifezâde İsmail Efendi (d.1790) in 1772. Known in the literature as the "Cassini Zîj," this work is one of two French astronomical treatises translated by Halifezâde in the 18th century; the other being Alexis-claude Clairaut's (d.1765) "Théorie de la Lune". According to the Osmanlı Astronomi Literatürü Tarihi, thirteen manuscript copies are known of the Ottoman Turkish translation of Cassini's Astronomical Tables (Tercüme-i Zīc-i Cassini). This study examines the eclipse diagrams in the original French edition alongside their counterparts in the Ottoman translations. The analysis is based on a comparison of two manuscript copies: one presented to Sultan Mustafa III (d.1774), housed in the Topkapı Palace Library, and another held by the Rare Books Library of Istanbul University. The Topkapı manuscript includes visual diagrams related to solar and lunar eclipses, whereas the Istanbul University copy lacks these illustrations. This difference suggests that the visual material was not only translated but also selectively transmitted. The first aim of this presentation is to explore how astronomical knowledge was reconfigured not only textually but also visually across cultures and time, through the examination of these diagrams. The second aim is to o ffer a layered understanding of the processes of scientific transmission, adaptation, and manuscript visualization in the late 18th century, as exemplified by the Tercüme-i Zîc-i Cassini.

Tuesday 23 September 2025

What would an astrologer do? Methods and techniques of medieval and early modern horoscopy

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This paper surveys the principal methodologies of Latin and Arabic horoscopy, rooted in Greco-Hellenistic traditions. It highlights the technical requirements of nativities, elections, interrogations, and revolutions. It aims to complement the study of astrological diagrams by clarifying the operative techniques that structured medieval and early modern astrological practice.

Reconstructing a Lost Moveable Diagram: John Vimond's Planicelium, an Instrument for Astrology (Paris, c.1320)

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This contribution explores a peculiar case of a "moveable diagram", the Planicelium, described by John Vimond in Paris around 1320: an astronomical computing instrument designed to support astrological practice. The only surviving manuscript copy of Vimond's text transmits detailed descriptions and instructions for its use but no diagrams. Recently edited and translated by M.-M. Saby and myself, the treatise has allowed us to reconstruct the instrument's scales and form. In this workshop session, participants are invited to engage directly with Vimond's instructions, learning how the instrument served to establish the figura coeli of a given moment (domification) and to perform the operation of "direction," central to astrological prognostication. By experimenting with this reconstructed device, participants will gain insight not only into the technical procedures of medieval astrology but also into the mediating role of diagrams—whether drawn, imagined, or moveable—in shaping astronomical and astrological knowledge in the Latin 14th century.

John of Lignières and houses's computation: a first look at his Saphea (Paris, c. 1320-1340)

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The unedited treatise on the Saphea by the Parisian master John of Lignères (fl. c. 1320-1335) details a unique and sophisticated procedure for the division of the astrological houses. Chapter 23 of the treatise, which presents this method, serves as a powerful lens through which to analyze the organization of the treatise (the computation of houses is one of the culminating point of Medieval spherical astronomy), the structure and geometry of the instrument, the type of mathematical procedures developed by John of Lignères with this instrument. By examining and restituting the historical context of this procedure, the paper offers significant insights into an unexplored source and grounds a more general reflection on instruments as 'moving diagrams.' It demonstrates how the saphea's specific geometry and its pragmatic use of approximations shape the user's conceptualization of the houses. It

contributes to a reflection about the importance of the mathematical toolkits of astrologers arguing that these are not shaped only by the simple geometry of the astrological square or the properties attributed to them in astrological interpretative treatises.

Projected Rays: The Mathematical Art of Astrological Aspects in a text of Abū Naṣr al-Ḥasan ibn ʿAlī al-Munajjim al-Qummī

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Abū Naṣr al-Ḥasan ibn ʿAlī al-Munajjim al-Qummī, an astrologer serving the Buyid ruler Majd al-Dawla (997-1029), wrote his *Kitāb al-bāriʿ al-madkhal ila ʿilm aḥkām al-nujūm*, an excellent book that introduces the science of star predictions. It is composed of five books that lay the astronomical foundation for astrologers, along with common astrological content. The second chapter of the fourth book, dedicated to casting rays, references Vettius Valens through Māshāllah, describing an algorithm for projecting rays using seasonal hours, along with a worked example to find sextile, quartile, and trine rays. In the third chapter of Kitāb al-bāriʿ, al-Qummī illustrates another method based on the planet's location relative to the four cardinal points, which involves using right ascension and oblique ascension. In this paper, I will examine the content of chapters two and three of book four of *Kitāb al-Bāriʿ al-Madkhal ila ʿIlm Aḥkām al-Nujūm*. My objective is to present the two methods used by the author to explain the concept of projecting the rays, incorporating modern notations and recomputing the worked example.

The Role of Taswiyat al-Buyūt in Astrology

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The taswiyat al-buyūt (division of houses) was one of the fundamental operations in astrology. It refers to dividing the ecliptic into twelve equal sections (houses), each house passing across the meridian circle in two hours of temporal motion. The point of the ecliptic that is rising at a given moment is called the ascendant (ṭāliʿ). The position of the ecliptic in the sky varies according to the observer's location and the specific time. By knowing the observer's ascensional times at the desired moment, the position of the ecliptic can be determined. In the taswiyat al-buyūt method, the aim is to calculate the ascensional time corresponding to each of the twelve houses of the ecliptic. The first house begins with the ascendant, which is defined by the observer's ascensional time at the given moment. The positions of the subsequent houses are then determined on this basis. These houses were traditionally employed in astrology to predict aspects of the future, ranging from propitious days to illnesses and misfortunes. I am going to discuss the method of calculating these houses, their visualisation, and some of their astrological functions.