IWNW, Vol. 4 (2025): 121-156

# Personified Planets in Islamic Manuscript Illustrations and Arts: A Study of Civilizational Influences and Artistic Symbolism (7th -10th H/ 12th -15th CE Centuries)

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**Abstract**: The paper investigates the depiction of the seven wandering planets (al-Kawākib al-Sayyārah) in human form in Islamic manuscript illustrations and art objects from the 7th AH-12th CE to the 10th AH-15th CE centuries. It analyses the symbolic and astrological contexts of these depictions, not as pagan effects, but as cultural and artistic representations without pagan significances, reemployed within a new framework serving talismanic, decorative, and scientific functions. The paper also examines the civilizational origins of this depiction, particularly the influences of Babylonian and Sabian-Harranite cultures, as well as those of Greek, Indian, Persian, and Chinese cultures, which collectively shaped a distinctive understanding of planets within Islamic culture, as reflected in astronomical and astrological manuscripts, as well as metal and ceramic artifacts. Results revealed that the representations of planets in Islamic manuscript illustrations and art objects in human forms were derived from the planetary characteristics observed by ancient astronomers and linking them to ancient deities. All ancient civilizations depicted planets in human sculptures, often associated with the deity they represented. The paper demonstrated how Muslim artists could integrate these representations without transgressing doctrinal boundaries by reformulating concepts and presenting them with a vision consistent with the scientific and symbolic spirit of Islamic art, while maintaining their talismanic and social functions.

**Keywords**: Astrology, Seven wandering planets, Sabians of Harran, Astronomy, Human representations

# الكواكب المصورة بهئية بشرية في تصاوير المخطوطات والفنون الإسلامية: دراسة في التأثيرات الحضارية والرمزية الفنية خلال الفترة من القرن ٧هـ-١٢م إلى القرن ١٠هـ/١٥م

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**الملخص:** يتناول هذا البحث دراسة ظاهرة تجسيد الكواكب السبعة السيارة في هيئة بشرية ضمن تصاوير المخطوطات والتحف الفنية في العالم الإسلامي خلال الفترة من القرن السابع حتى القرن العاشر الهجري (١٣م-١٥م). وتُحلل الدراسة السياقات الرمزية والتنجيمية التي صاحبت هذه التجسيدات، لا بوصفها بقايا وثنية، بل باعتبارها تمثيلات ثقافية وفنية نُزعت منها دلالاتها العقائدية الوثنية، وأُعيد توظيفها في إطار جديد يخدم الوظائف التعويذية والزخرفية والعلمية.

كما يبحث البحث في الأصول الحضارية لهذا النوع من التصوير، ولا سيما التأثير البابلي والصابئي الحرّاني، إضافة إلى التأثيرات اليونانية والهندية والفارسية والصينية، التي أسهمت مجتمعة في تشكيل فهم خاص للكواكب ضمن الثقافة الإسلامية، سواء من خلال المخطوطات الفلكية والتنجيمية أو التحف الفنية المعدنية والخزفية. وقد كشفت الدراسة عن ان تمثيل الكواكب فى تصاوير المخطوطات والفنون الإسلامية بأشكال بشرية يرجع إلى صفات الكواكب التى رصدها علماء الفلك القدامي، وربطها بمعبوداتهم القديمة ، فقامت كل الحضارات القديمة بتمثيل الكواكب بمنحوتات بشرية طبقا للاله المرتبط بكل كوكب، ويُظهر البحث كيف استطاع الفنانون المسلمون دمج تلك التجسيدات في نتاجهم الفني دون تجاوز للحدود العقائدية، عبر إعادة صياغة المفاهيم وتقديمها برؤية تتسق مع الروح العلمية والرمزية للفن الإسلامي، مع احتفاظها بوظيفتها التعويذية والاجتماعية .

**الكلمات الدالة:** علم التنجيم- الكواكب السبعة السيارة- صابئة حران- علم الفلك- تجسيدات بشرية.

## Introduction:

Astronomy is one of the natural sciences that garnered significant interest among the Arabs even before the advent of Islam. The Arabs linked their astronomical observations to understand the nature of the universe, predict the unseen, and foresee the future- a practice later known as astrology, which prevailed in the East and West for long periods of history[1].

Astronomy has always held an important place in Arab intellectual heritage, even before the advent of Islam. Early Arab observers sought to interpret celestial phenomena not only as part of natural inquiry but also as a means of foreseeing future events- a practice that later evolved into astrology. This tradition has dramatically influenced Eastern and Western cultures throughout history[2]. In Islamic civilization, astrology played a prominent role in daily life, as evidenced by various Islamic artifacts featuring extensively used astrological symbols and motifs, particularly in decorative arts and manuscript illustrations. While some scholars considered these motifs merely ornamental, their recurrence suggests that they reflected genuine cosmic beliefs among Muslim groups in specific historical periods. This intersection between belief and artistic expression was particularly evident in the depiction of the seven classical planets in human form-symbols believed to bring good fortune. Muslim artists skilfully integrated these planetary figures into various art forms, ranging from gold and silver trays, mirrors, pen cases, and dishes made of metal, ceramic, and glass, to intricate decorations of astronomical and astrological manuscripts[3].

Islam clearly prohibited astrology, particularly its effect on the course of life, as a form of deviation that contradicts monotheistic principles. However, astrology persisted and flourished at the folklore level[4]. Additionally, some caliphates consulted astrologists who examined planetary positions and celestial conjunctions to make informed administrative and political decisions, especially before any significant endeavour[5].

During the Abbasid era, astrology emerged as a crucial field of human knowledge, largely due to the Abbasid caliphs' political ideology, which strategically employed astrological practices to consolidate and legitimise their rule. Therefore, intellectual and scientific centres, particularly in Baghdad, were established to collect, study, and analyse early scientific texts, especially those related to astronomy and astrology. Muslim scholars devoted considerable attention to the heritage of preceding

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[1] Maymūn Dunyā, *Taṭawwur ʻilm al-falak ʻinda al-Muslimīn wa-al-ʻArab fī al-ʻaṣr al-Wasīṭ bayna al-qarnayn 2h–7h / 8m–13m* (master's thesis, Qism al-tārīkh, Kullīyat al-ʻUlūm al-Insānīyah wa-al-Ijtimāʻīyah, Jāmiʻat 8 Māy 1945–Qālmt, 2024), 59.

[2] R. W. Lebing and S. P. Blake, *Astronomy and Astrology in the Islamic World*, The New Edinburgh Islamic Surveys (Edinburgh: Edinburgh University Press, 2016), vii–viii.

[3] Maryam D. Ekhtiar and Claire Moore, *Art of the Islamic World: A Resource for Educators* (New York: Metropolitan Museum of Art, 2012), 93.

[4] ʻAbīr ʻAbd Allāh ʻAbd al-Wahhāb al-ʻAbbāsī, *Al-Khalīfah wa-al-Munjjim: Siyāsat al-Tanjīm al-Ḥakamī fī Bidāyāt al-ʻAṣr al-ʻAbbāsī, al-Khalīfah al-Manṣūr wa-Taḥfīz Thaqāfat al-Tanabbuʼāt*, *Al-Majallah al-Akādīmīyah lil-Dirāsāt al-Ijtimāʻīyah wa-al-Insānīyah*, no. 18 (2017): 4.

[5] Fāṭimah Mryzyq ʻAwdah Abū Shqāl, *Muʻtaqad al-Tanjīm wa-Rumūzuh ʻalá Miskūkāt al-Jazīrah al-Furātīyah wa-al-Anāḍūl Khilāl al-Qarnayn al-Sādis wa-al-Sābiʻ al-Hijrīyayn*, *Majallat al-Ittiḥād al-ʻĀmm lil-Āthārīyīn al-ʻArab* 24, no. 1 (2023): 323.

civilisations, meticulously examining works from the Greco-Roman, Mesopotamian, Sassanian Persian, and Indian traditions[1]. According to historical sources, the branches of astrology among Muslims represented a direct continuation of Greek, Babylonian, and Persian traditions[2]. For instance, the Abbasid Caliphate Abu Ja'far al-Mansur (158 AH/ 775 CE) played a pivotal role in reviving astronomy and astrology in the Middle Ages[3], as the first Muslim caliph to adopt astrology officially. Renowned for his profound passion for astronomy, he encouraged scholars to translate and develop astronomical works, bestowed generous rewards upon them, and commissioned Arabic translations of the works of Euclid, Archimedes, and Ptolemy. Al-Mansur scarcely undertook any significant matter without consulting astrologers, bringing them into his council and basing his decisions on celestial judgments[4].

The visual representations and pictorial embodiments of zodiac signs and the seven planets created by Muslim artists, astronomers, and astrologers profoundly developed Islamic artists. These signs became prominently featured in artistic artefacts and manuscript illustrations. While numerous studies have examined fixed stars, constellations, and planetary conjunctions, no specialised study has systematically investigated the representations of the seven moving planets. Therefore, the study analyses the personifications of planets in Islamic art, specifically the $7^{th}$- $10^{th}$ H./ $13^{th}$-$16^{th}$ CE. centuries. It seeks to address several key questions: Did the extensive translation movement during the Islamic era, beginning in the Abbasid period, influence the visual and figurative representations of planets? Did these representations derive from pre-existing visual and intellectual traditions transmitted through translations from Greek, Babylonian, Sassanian, and Indian civilisations? Were they innovations of Muslim artists denoting their symbolic and imaginative interpretations of astronomical and astrological concepts? Employing an analytical comparative method, the present study compares personified representations of planets in Islamic art to their descriptions in earlier civilisations' sources to identify cultural influences and interactions. The literature has predominantly focused on the astronomical aspect of planets, neglecting the symbolic meanings behind their humanoid representations or the reasons for their specific iconography. While some prior studies have described planetary and stellar forms in particular manuscripts, such as *ʿAjāʾib al-makhlūqāt wa gharāʾib al-mawjūdāt*, none have dedicated independent research to understanding the nature of these representations, such as Īhāb Aḥmad Ibrāhīm, dirāsah atharīyah fannīyah ltṣāwyr Kitāb tarjamat ṣuwar al-Kawākib llṣwfy bi-Dār al-Kutub al-Miṣrīyah sijill rqm 9-m Mīqāt Fārisī, Risālat duktūrāh ghayr manshūrah, Kullīyat al-Āthār, Jāmiʻat al-Qāhirah, 1998.; Mayyādah Ibrāhīm ʻAṭīyah Ibrāhīm, Aḥkām al-nujūm wa-rumūzihā al-fannīyah fī al-Taṣwīr al-Islāmī dirāsah atharīyah fannīyah, Risālat mājistīr ghyr manshūrah, Kullīyat al-Āthār, Jāmiʻat al-Qāhirah, 2010.

[1] Marion Dolan, *The Constellation Perseus and Its Evil Star in Latin and Islamic Manuscripts* (paper presented at the International Medieval Conference, Kalamazoo, MI, 2024), 15.

[2] Seyyed Hossein Nasr, *Islamic Science: An Illustrated Study* (London: World of Islam Festival Publishing Co., 1976), 126.

[3] David Pingree, "The Greek Influence on Early Islamic Mathematical Astronomy," *Journal of the American Oriental Society* 93, no. 1 (Jan.–Mar. 1973): 32.

[4] Dunyā, Asmā', Taṭawwur ʻilm al-falak ʻinda al-Muslimīn, 29.

Some modern studies on *ʿAjāʾib al-makhlūqāt wa gharāʾib al-mawjūdāt,* such as Ḥasan Nūr, Salāmah Ḥāmid, ʻAfāf al-Yamanī, dirāsah fannīyah li-nuskhah Turkīyah min makhṭūṭ ʻAjāʾib al-makhlūqāt lil-Qazwīnī Maḥfūẓ bi-Dār ālktb al-Miṣrīyah Luxor International Journal of Archaeological Studies ,Vol.6, Issue 2,2023.- And Rīhām Ḥusayn ʻAbd al-ʻAzīz Amīn al-Rashīdī, Wāʾil Bakrī, taṣāwīr al-Abrāj fī ḍawʾ makhṭūṭ ʻAjāʾib al-makhlūqāt wa-gharāʾib al-mawjūdāt lil-Qazwīnī al-maḥfūẓah bi-Maktabat Jāmiʻ lālh lī btrkyā taḥta raqm 1991, bi-tārīkh 827 H / 1423m, were limited to describing planets in manuscript illustrations. In their analyses, they reported that these planets took human forms, which were described without highlighting their causes.

**Planetary Representations in Islamic Art:**

The seven classical planets, known in Arabic as *the wandering planets*, derive their nomenclature from the Greek term πλανήτης (planētēs), denoting celestial bodies exhibiting independent movement across the heavens, unlike the fixed ones. The etymological root πλανάω (planáō), denoting wandering, deviation, and erratic movement, captures ancient observations of planets as luminous entities orbiting complex celestial paths[1]. In Islamic art, personified representations of planets became prominent, particularly in Iranian artefacts and manuscripts from the post-early Islamic era[2]. This practice was deeply rooted in pre-Islamic civilisations that personified planets as deities with distinctive human characteristics, suggesting the belief in their significant influence on the course of life. Ancient statues and depictions illustrated planetary deities that conveyed spiritual and philosophical concepts. On the contrary, Islamic astrological manuscripts preserved their significance within cosmological frameworks through representation. Furthermore, the personified representation of planets facilitated understanding of the characteristics and celestial role as Greco-Harranian traditions that inherited Babylonian celestial role, wherein planets governed specific professions, geographical regions, and metaphysical qualities, which developed consistent visual representations[3]. In the same context, in *Al-Jawāhir Wa-Al-Aḥjār ʻalá Al-Kawākib*, al-Majrīṭī[4] cited a dialogue between Aristotle and Iskander, “O Iskander, if you created an artefact for a planet, make it appropriate," to stress the proportion between the material

[1] Duʻā’ ʻAbd al-Munʻim ʻAbd al-Raḥmān Rayḥān, al-taʻbīr ʻan al-Tanjīm fī al-fann al-Rūmānī "Dā’irat al-Burūj namūdhajan",( Risālat duktūrāh, Qism al-Āthār al-Yūnānīyah wālrwmānyh, Kullīyat al-Ādāb, Jāmiʻat ʻAyn Shams, 2016):177.

[2] Stefano Carboni , *Following the Stars: Images of the Zodiac in Islamic Art*, (The Metropolitan Museum of Art, New York: 1997): 6.

[3] Carboni, *Following the Stars: Images of the Zodiac in Islamic Art*, 6.

[4] Abu al-Qasim Maslama ibn Ahmad al-Majriti (338-398 AH/950-1007 CE) was born in Madrid (Majrit), Andalusia and lived and died in Córdoba, where he was the foremost mathematician of his time, with a particular knowledge in astronomy and the celestial motions. He moved to the East, engaging with Arab and Muslim scholars exchanged mathematical and astronomical research. Furthermore, he established a school in Córdoba that educated many prominent scholars in mathematics, astronomy, medicine, philosophy, chemistry, and zoology. He wrote many works, including *Ghāyat al-Hakīm* (343- 348 AH), in whose introduction, he stated: "I observed that most people pursue talismans and forms of magic without understanding what they seek or the proper path, wasting their lives in pursuit of something the sages have concealed to prevent the world's ruin...". Abī al-Qāsim Maslamah ibn Aḥmad Majrīṭī, *Ghāyat al-Ḥakīm fī al-arṣād al-falakīyah wālṭlāsm al-rūḥīyah wa-al-tanjīm*, taḥqīq H. rynz, al-Ṭabʻah al-ūlá ( byrwt-lbnān: 2008): 5-7.

and the planets, denoting an accurate understanding of the essence and effect of planets[1].

Academic investigations have revealed that Islamic astronomical treatises, translated from prior pagan sources, demonstrated a correlation between planets and deities possessing analogous traits and qualities. For instance, the Babylonians, whose beliefs influenced later Greek and Roman philosophies, posited that celestial phenomena were directly linked to the course of life on Earth[2], reflecting a cosmic parallelism between the heavens and the Earth. This perspective posits that a multitude of deities residing in an unseen spiritual dimension[3] conveyed omens via astronomical events, which were understood as expressions of divine intention. These celestial phenomena could be purportedly influenced through propitiatory rituals, such as sacrifices, designated prayers, and magic ceremonies[4]. This framework proposed that all world actions and occurrences were subject to the influence of celestial entities that had merged with deities, thereby creating astral-divine forces. Consequently, celestial phenomena were viewed not as mere happenstance or fleeting coincidences, but as intentional acts by the pertinent divine entities. In the same context, planets were regarded as divine beings that inherently adhered to superior cosmic influences, with each planet operating as a deity engaged in human matters and depended upon for the governance of earthly affairs[5].

This point of view is supported by al-Majrīṭī's *Ghāyat al-Ḥakīm*, as saying, "Everything that was formed in the earth's depths, on its surface, or in the atmospheric and celestial realms above has in the firmament a correspondent image, a similar shape, and an analogous counterpart..."[6].

This concept is highlighted in the similarity of planets and people in the writings of Muslim historians. For example, the *Third Epistle of the Ikhwān al-Ṣafā'* states: "Know, my brother, that among the planets, the Sun is like a king, while the others are like aides and soldiers. The Moon is like a vizier and heir apparent, Mercury like a scribe, Mars like a military commander, Jupiter like a judge, Saturn like a treasurer, and Venus like maidservants and attendants. The celestial spheres are like provinces, with the zodiac signs, lunar mansions, and planetary boundaries serving as their cities. The planets in the zodiac signs are like souls in bodies, and a planet in its domicile is like a man among his people and kin[7]". This passage resembles planets to souls in bodies, and the planet to a man in his residence and clan.

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[1] Majrīṭī, Ghāyat al-Ḥakīm, 160.

[2] According to Ibn Waḥshiyya stressed this belief: "All what happens on Earth relates to and is directly influenced by celestial phenomena and the movement of celestial bodies". al-Filāḥah al-Nabaṭīyah, translated by Ibn Waḥshiyya "Abū Bakr Aḥmad ibn ʿAlī ibn Qays al-Kasdānī, $4^{th}$ H/ $10^{th}$ CE century, ed. Tawfiq Fahd,(Cybrus: Lemasoul, 1993): 302.

[3] J. B. Segal, " The Sabian Mysteries: The Planet Cult of Harran". In *Vanished Civilizations*, (New York, 1963), 218-219.

[4] Nicholas Campion, "Babylonian Astrology: Its Origin and Legacy in Europe," in *Astronomy across Cultures: The History of Non-Western Astronomy*, ed. Helaine Selin (Dordrecht: Springer Netherlands, 2000), 510.

[5] Rayḥān, al-ta'bīr 'an al-Tanjīm, 5.

[6] al Majrīṭī, Ghāyat al-Ḥakīm, 149.

[7] Ikhwān al-Ṣafā al-Risālah al-thālithah, 134.

Al-Majrīṭī, in *Ghāyat al-Ḥakīm*, states: "Aristotle, in his work titled *Kitāb al-Maṣābīḥ wa-l-Alwiyya*, illustrated the planets according to the insights received in this field..." He portrayed Saturn as a figure of dark complexion enveloped in a verdant mantle, with a shaven head and a sickle grasped firmly in his hand; Jupiter as a dignified individual adorned in luxurious garments, seated regally upon a throne; Mars as a warrior astride a lion, wielding a lengthy spear; the Sun as a youthful man devoid of facial hair, possessing an attractive visage, crowned and brandishing a spear, accompanied by a being with a human head and arms elevated, its form reminiscent of a quadruped; Venus as a young woman delicately holding a comb in one hand and an apple in the other, her hair cascading gracefully; Mercury as an unclothed figure riding an eagle, engaged in writing; and the Moon as a knight astride a hare..."[1].

The works of Muslim astronomers and astrologers exhibited a notable similarity to the celestial deities depicted in ancient temple carvings in Ḥarrān, particularly within the Temple of Sin, the Moon god, one of the seven temples there[2]. The temples continued to function until the 11th CE century, enduring through Islamic governance, as the city served as a hub of Hermeticism until its total annihilation by the Mongols in 627 AH/1258 CE[3].

According to some sources, most translators engaged in translating astronomical and astrological knowledge into Arabic hailed from Ḥarrānian backgrounds, significantly shaped by the conviction that planets were regarded as celestial spirits. This influence is evident in their personified representations of planets, which utilised their traits in the Babylonian tradition, later adopted by the Ḥarrānians and integrated with their planetary deities. This perspective, as conveyed by Muslim historians drawing from Babylonian sources, coupled with the scant surviving material evidence from ancient civilisations that personify planets as objects of veneration, likely served as a pivotal influence in the development of personified planetary representations within specific elements of Islamic art.

**Names of Planets**:(Fig.1) Ancient civilisations designated names to observable planets, drawing from either their inherent attributes or the mythological figures they symbolically embodied. The dialogue "Epinomis" ranks among the earliest Greek texts that meticulously document the names of planets, perceiving them as manifest celestial forces. Authored either by Plato or a devoted follower in the 4th BCE century as a supplement to Plato's *The Laws*, the dialogue articulates their conviction in the divinity of the planets, subsequently detailing each planet's Greek designation concerning its corresponding deity - the divine figure to whom that specific planet was regarded as

[1] al Majrīṭī, Ghāyat al-Ḥakīm, 160.

[2] The arrangement and order of the temples and the height of the idols conformed to the distance of each planet from the earth. The temple of Saturn was hexagonal and black, his statue was of lead, his day Saturday; the temple of Jupiter was triangular and green, his statue of tin, his day Thursday; the temple of Mars was oblong (or square?), his colour red, his statue of iron, his day Tuesday; the temple of the sun was square, his statue was of gold, his day Sunday; the temple of Venus was probably a triangle inside a rectangle and it was blue, her statue was of copper, and her day Friday; the temple of Mercury was probably a triangle in an oblong, it had no allotted colour, Mercury's statue was of clay and his day Wednesday; the temple of the Moon was probably octagonal, her statue—the moon was now regarded as female—of silver, and her day Monday. The location of these temples was unknown. Segal, The Sabian Mysteries The Planet Cult of Harran, 218.

[3] Segal, *The Sabian Mysteries: The Planet Cult of Harran*, 218.

"sacred"[1]. For instance, Venus, characterised by its luminous white hue, was linked to beauty and femininity. The Romans referred to it as "Venus," embodying beauty and love; the Greeks designated it "Aphrodite," representing femininity and affection; the Babylonians identified it as "Ishtar"; in Sasanian Iran, it was known as "Anahita"; and among the Sogdians, it was recognised as Nāshid[2], the deity of love and beauty. Generally, Venus represented the essence of femininity and the concept of romance[3].

Mars, characterised by its reddish hue due to iron oxides on its surface, had historically been linked to conflict and devastation in various ancient cultures. For example, the Romans designated it as "Mars," their deity of warfare; the ancient Babylonians identified it as "Nergal," the god of war, death, and destruction; while the Sumerians termed it "Arez," likewise their god of conflict. Mercury, the swiftest planet in its orbit around the sun, was portrayed by ancient cultures as a celestial envoy, transmitting the sun's communications to other divine beings. The ancient Greeks referred to him as "Hermes." At the same time, the Romans called it "Mercury," and the Babylonians recognised it as "Nabu," the deity associated with writing, knowledge, and the patronage of scribes, calligraphers, and educators. Nabu, being the son of the deity Marduk, occupied a distinguished role within the realm of religious thought and was frequently regarded as the apparent heir[4]. Jupiter, recognised as the most massive and luminous planet, had associations with the Babylonian god Marduk, the paramount deity Zeus in Greek mythology, and its Roman equivalent, Jupiter. Ultimately, Saturn, the most distant planet observable from the sun and the slowest in its orbital progression, received its designation from the Romans, honouring their deity associated with agriculture and harvest[5]. The names, which intertwined astronomical observation with religious ideas, illustrated the profound impact of mythological thought on ancient astronomy, acting as a crucial element in comprehending the connection between cosmic beliefs and the symbolic nomenclature of planets across various cultures.

In Islamic astrology, the names of the planets suggested a continuity of ancient astronomical traditions, stemming from either their discernible attributes or from symbolic interpretations deeply embedded in mythological and cultural legacies. Some Islamic astrological texts offered elucidations for these names: Saturn, known as Zuhal, derives its name from the term 'zahala,' which signifies a tendency to lag, a reference to its notably slow orbital motion. Additionally, some interpretations link it to 'zuhl,' a word associated with malice, reflecting historical beliefs that the planet embodies such characteristics. Jupiter (*Al-Mushtari*) received its name due to its striking beauty, as though it had attained this quality on its own, or perhaps because it was regarded as the celestial body associated with commerce and a harbinger of prosperity and favourable winds in their lexicon. In *Lisan al-Arab*, it is referred to as Al-Mushtari due to its ability to 'yastashri' (advance firmly) in its trajectory without exhibiting any signs of weakness

[1] Richard Tarnas, "The planets", *Archai: the journal of archetypal cosmology* 1.1 (2009): 36.

[2] Jeffrey Kotyk, "The Sinicization of Indo-Iranian Astrology in Medieval China", *SINO-PLATONIC PAPERS, NO.282,September (2018*) : 67.

[3] Maiywa-Masai, The Solar System as a New Pantheon of Gods: How Modern Astronomy Reimagined the Heavens , https://doi.org/10.1371/Journal.0148257

[4] Anna Caiozzo, "Une conception originale des cieux, planètes et zodiaque d'une cosmographie jalayride." *Les Annales Islamologiques* 37(2003): 62.

[5] Maiywa-Masai, The Solar System as a New Pantheon of Gods: How Modern Astronomy Reimagined the Heavens , https://doi.org/10.1371/Journal.0148257

or fracture. Mars (Al-Mirrikh) originates from 'markh', a tree whose branches create friction to ignite fire, aptly named for its reddish hue; some suggest it resembles a featherless arrow that lacks a straight trajectory, mirroring the planet's numerous irregularities in motion, which were believed to reflect its astrological implications; it may also connect to 'al-amrakh', denoting something adorned with red spots. The Sun (AS-Shams) derives its name from its role as an intermediary between three upper planets and three lower ones, akin to how the central piece of a necklace is referred to as 'shamsa'. Venus (AZ-Zuhara) derives its name from 'al-zahir', which signifies the luminous white characteristic of objects. In *Lisan al-Arab*, it is referred to as 'this white planet'. Mercury (Utarid) embodies the essence of penetration across various domains. It is often referred to as 'the scribe' due to its incessant engagement with other celestial bodies and its swift motion, perpetually shifting and oscillating, as if in a continuous cycle of giving and reclaiming. The Moon (Al-Qamar) originates from 'qamra,' which signifies whiteness, with 'al-aqmar' referring to the white one[1]... The Persians designated these celestial bodies with specific names: 'Keyvan' for Saturn, 'Tir' or 'Berejis' for Jupiter, 'Bahram' for Mars, 'Mehr' for the Sun, 'Anahid' or 'Bidokht' for Venus, 'Hermes' for Mercury, and 'Mah' for the Moon[2].

In Islamic cosmology, the seven wandering planets were related to celestial bodies (from the lowest to the highest): Starting with the moon orbit, Mercury, Venus, Sun, Mars, Jupiter, and Saturn, followed by fixed orbits, wherein all celestial bodies could be seen except for the seven wandering ones[3], which received personified representations in Islamic art.

**Moon**:(fig.2) The lunar deity known as "Sin" ("Nanna" in Sumerian) was a significant figure in Mesopotamian religion, revered as a paramount divine figure and guardian across various cities and temples. It was linked with safeguarding, sagacity, and the stewardship of agreements. It was thought to exert a pervasive oversight over the world, akin to the moon casting its light upon the night sky and observing the celestial dance of stars and planets. While its son Shamash, the sun god, wielded considerable power in the realms of justice and the critical determinations of life, death, and healing, it was subordinate to Sin, the primordial light that governed the darkness[4]. The imagery associated with the lunar sphere became intertwined with the goddess "Ningal," who was recognised as the consort of Sin. In both Sumerian and Akkadian literature, Ningal was depicted as equal to or superior to the gods in reverence and status. Ningal's representation often emerged through the crescent moon, serving as an emblem of femininity and fertility (Nanna-Sin)[5].

[1] al-Nuwayrī (Shihāb al-Dīn Aḥmad ibn ʻAbd al-Wahhāb t733h), *nihāyat al-arab fī Funūn al-adab*, j1, taḥqīq Mufīd Qumayḥah,(al-Qāhirah, Dār al-Kutub al-Miṣrīya:1923), 32.

[2] al-Ṣafadī (Ṣalāḥ al-Dīn Khalīl ibn Abīk t 764h) *al-Ghayth al-musjam fī sharḥ Lāmīyat al-ʻAjam, al-mujallad al-Thānī*,( Bayrūt: Dār al-Kutub al-ʻIlmīyah, 1975), 245.

[3] al-Qalqashandī, *Ṣubḥ al-Aʻshá fī ṣināʻat al-inshā*, j 1,( Bayrūt: Dār al-Kutub al-ʻIlmīyah,1987), 13.

[4] Enn Kasak, and Raul Veede, "Understanding Planets in Ancient Mesopotamia." *Folklore* 16 (2001), 17.

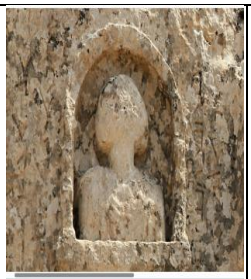
[5] Guitty Azarpay, and Anne D. Kilmer, "The eclipse dragon on an Arabic frontispiece-miniature." *Journal of the American Oriental Society* (1978), 364.

| | Babylon | Greek | Persian | Indian | Symbolism | Color |
|---|---|---|---|---|---|---|
| moon | Nanna | Selēnē | Mâh | Candra | Beauty, emotion, and fertility. | Silver |
| Mercury | *Nabû-* | Hermês | Tīr | Budha | "Knowledge and science | Blue-Green |
| Venus | Ištar-Inanna | Aphroditēs | Anāhıd | Sukra | Femininity and romance | White |
| Sun | Šamaš Utu | Hēlios | Mihr | Surya | Greatness, power, and kingship | Gold |
| Mars | Nergel | Mars | Bahrām | Mangala | war and aggression | bright red |
| Jupiter | Marduk | Zeús | Ohrmazd | Brhaspati | Justice, wisdom, and religion | Yellow |
| Satun | Ninurta Kajamānu | Saturn | Keyvān | Sani | evil planet | black |

(Fig.1) Table1 Names of planets in ancient civilizations

(Fig.2) Moon from pl. 3/b

Fig .3 coinage of the Zangid sovereign Masud I of Mosul. Azarpay, The Eclipse Dragon,Fig.2



(pl.1) Temple of the Moon-god Sīn at the site of Sogmatar near Harran. *Segal*, Pagan Syriac,101

(pl.2)The Moon God from the Palace of Hatra – Parthian Period, Sommer, *Hatra*,103

As noted earlier, the moon's embodiment as a separate celestial body was intricately linked to astral ceremonies and astrological customs within Mesopotamian cultures, especially those of the Babylonians and Harranians[1]. The personified representation of the moon was observable in reliefs from the Temple of Sin in Sugmatar, Harran, dating back to the $2^{nd}$-$3^{rd}$ CE centuries CE (Pl. 1). The cultures of Assyria and Babylon,

[1] Ṭāhir Riḍā Zādah, Ḥabīb Allāh Ayt Allāhī, Muḥsin mrāthá, "brrsá shmāyl nkārānh khāstkāh Akhtar", *Journal of Visual and Applied Arts*, vol.7, no.14, (1393): 10.

influencing others, upheld the belief in the moon's mystical influence on both male and female fertility[1].

The representations of lunar iconography emerged during the Parthian era, notably illustrated in the reliefs from Hatra Palace, where the moon was characterised as a god in conjunction with the crescent[2] (Pl.2). A Sasanian seal, in contrast, depicted a female figure adorned with flowing hair beneath a crown, encircled by a prominent crescent. The representation of lunar characteristics through a dual-gendered lens illustrated the Sasanian influence that subsequently infiltrated Islamic metalwork[3].

The astrology of Harran represented the moon as a conduit, facilitating the transmission of planetary influences to the terrestrial sphere, thereby inspiring sacrificial offerings and invocations during its astrological movements—rituals thoroughly documented in Ibn Wahshiyya's *Nabatean Agriculture*[4]. Furthermore, Al-Majrīṭī alluded to ancient lunar depictions, portraying the moon as a captivating woman encircled by dragons, with whales adorning her head. In contrast, the philosopher Iamblichus illustrated her poised upon two bulls[5].

These perceptions have profoundly affected Islamic art, with the moon often depicted with a woman or her face. The Persian "*Akhtaramah*" emerged as a prominent planetary symbol in the 6th-7th centuries' Iranian metalwork, manifesting both autonomously and within collections of the seven wandering planets. Islamic artists traditionally depicted the moon in two principal forms: as a male or female figure embracing a crescent that encircled their upper torso, or as a human face within a lunar disc. Additionally, the moon appeared with a female face on the coinage of the Zangid sovereign Masud I of Mosul (565-575 AH/1169-1179 CE) (Fig.3). A male crescent-bearer was depicted on the pen case of Mahmud bin Sunqur[6]. Coins minted during the reign of Mu'izz al-Din Mahmud (605–618 AH/1208–1221 CE) featured this inscription, with a quote "al-Malik al-muʿaẓẓam Maḥmūd ibn Sanjar Shāh al-Nāṣirī, Dār Ḍarb al-Jazīrah " (Pl.3/a). In the 7th H./ 13th G. century, the seated crescent-holding figures on Badr al-Din Lulu of Mosul's coinage have been considered as Zangid heraldry; however, they more likely served apotropaic functions, reflecting contemporary beliefs in the protective symbolism of the moon[7].

[1] Francesca Minen, Touched by the Moon. Lunar influences on human health in Ancient Mesopotamia, In: Fly Moon La luna nell'immaginario umano, a cura di ,Lara Nicolini,Luca Beltrami, Lara Pagani, Atti del Convegno Internazionale Genova, 12-13 Dicembre 2019: 47.

[2] Michael Sommer, *Hatra: History and Culture of a Caravan City in Northern Mesopotamia* (Wiesbaden: Harrassowitz Verlag, 2010), 103–10.

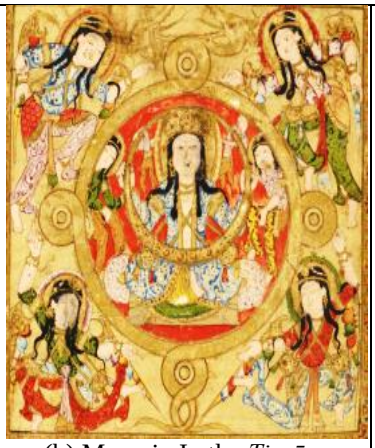
[3] Zādah, Ayt Allāhī, mrāthá, brrsá shmāyl nkārānh khāstkāh Akhtar, 12.

[4] al Majrīṭī, Ghāyat al-Ḥakīm, 293.

[5] al Majrīṭī, Ghāyat al-Ḥakīm, 109.

[6] https://www.bmimages.com/preview.asp?image=00022882001&itemw=4&itemf=0001&itemstep=1&itemx=3

[7] Abū shqāl, muʿtaqad al-Tanjīm wa-rumūzuh ʿalá mskwkāt, 331-332.

<table>
<tr>
<td>  <br>(a)<br>Coin of Muʿizz al-Dīn Maḥmūd- Jordan Ahli Bank Numismatic Museum -No.198 Abū Shqāl, Muʿtaqad al-Tanjīm,pl.9</td>
<td>  <br>(b) Moon in In the Tiryāq manuscript- 595 AH 1199 AD Bnf Arabe 2964 Jungeon Oh , Islamicised Pseudo-Buddhist, Fig.2</td>
<td>  <br>(c) ʿAjāʾib al-makhlūqāt-678-778-H- Munich, Bavarian State Library. Cod.arab.464 https://www.digitale-sammlungen.de/en/view/bsb00045957?page=24,25</td>
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<td>  <br>(d) ʿAjāʾib al-makhlūqāt-1350- St. Petersburg, Inst. for Oriental. Students. Ms E7https://www.akg-images.de/archive/-2UMDHUXQA61U.html</td>
<td colspan="2">  <br>(e) ʿAjāʾib al-makhlūqāt-893- AH BnF . Supplément Persian1781 https://gallica.bnf.fr/ark:/12148/btv1b8427203q/f24.item.r=Supplpl%C3%A9ment%20Persan%201781%E2%80%8E</td>
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<td colspan="3">Pl.3- Moon</td>
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The *Tiryāq* manuscript presented the moon as a regal figure(Pl.3/b), seated in a squatting posture, cradling a crescent moon in both hands. This personified representation drew from the personified traditions prevalent in the Turkish and Seljuk regions since the 10th CE century[1]. The illustration depicted the eclipse-inducing dragon "al-Jawzhar" restrained by four knots, representing its containment. This lunar imagery was associated with protective rituals aimed at safeguarding against snakebites, particularly emphasised by the depiction of two intertwined dragons (Rāhu and Ketu) within the same illustration, enhancing its mystical importance. The knots denoted the intricate symbolism of the "Talisman Gate" in Baghdad, where a figure adorned with a halo, presumably emblematic of the moon, stood poised between two opposing dragons,

[1] The moon was depicted in a stone inscription on the currently destroyed Sangar Gate of Mosul (Fig.3). Guitty Azarpay; Anne Kilmer ," The eclipse dragon on an Arabic frontispiece-miniature", *Journal of the American Oriental Society* (1978): 365.

each of which it restrained with its tongue[1]. This emblematic form manifested in numerous artistic creations, either for its ornamental appeal or protective purpose, considering the cultural convictions prevalent in these areas[2].

The earliest personified depiction of the moon in an astronomical context in Islamic manuscripts is in the Munich State Library's edition of al-Qazwini's *Wonders of Creation* (Cod.arab. 464), created in Damascus in 678 AH/1260 CE[3] (Pl.3/c). It survived in Islamic art throughout the 12th to 14th centuries(Pl.3/d-e), as depicted in Iranian metalwork, frequently manifesting beyond astronomical contexts as standalone representations .

**Mercury**: (Fig. 4) It is the fastest planet orbiting the sun. It had garnered significant symbolic associations within astrological frameworks. In Greek mythology, it was associated with Hermes, the agile messenger deity who navigated the spheres between gods and humans, conveying messages[4]. The characteristics of movement, intellect, and mediation persisted in Islamic astrology, where Mercury was referred to as "the penetrator of matters," a designation stemming from its swift, mutable motion—articulated in texts as "given and returned," alluding to its fluctuating influences[5].

Al-Majrīṭī, referencing ancient astrological texts, depicted Mercury as a standing figure, with a pen or writing reed in his right hand and a scroll or book in his left, embodying his function as a celestial scribe who conveys messages and documents wisdom. He stressed that this imagery embodied Mercury's essence as the celestial body associated with intellect, articulate expression, and arithmetic[6].

Like Venus, Mercury's dual role as a morning and evening star has led to occasional associations with bisexuality[7]. Islamic astrology often depicted a beardless, youthful scribe, adorned with a white turban, typically portrayed in a seated position, with one knee elevated to provide support for the paper, diligently inscribing text onto a scroll using a reed pen, occasionally accompanied by an inkwell. Mercury appeared in astronomical manuscripts, metalwork, and ceramic artefacts that embodied celestial motifs (pl. 4-5)[8].

[1] Anna Caiozzo, "Animal(-ité) et magie d'après la culture visuelle de l'Orient medieval", Magikon zōon. *Animal and magic from Antiquity to the Middle Ages Sous,* la direction de Jean-Charles Coulon et Korshi Dosoo Éditeur : Institut de recherche et d'histoire des textes Lieu d'édition ( Paris: Orléans ,2022):545.

[2] Azarpay; Kilmer, "The eclipse dragon on an Arabic frontispiece-miniature", 364.

[3] https://www.digitale-sammlungen.de/en/view/bsb00045957?page=,1

[4] Maiywa-Masai, The Solar System as a New Pantheon of Gods: How Modern Astronomy Reimagined the Heavens, 2023, Academia.edu https://doi.org/10.1371/Journal.0148257

[5] Grenet Frantz, Pinault Georges-Jean. Contacts des traditions astrologiques de l'Inde et de l'Iran d'après une peinture des collections de Turfan. In: Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres, 141ᵉ, année, N .4 (1997): 1058.

[6] al Majrīṭī, Ghāyat al-Ḥakīm: 109.

[7] *Erwr Kasak, Rawl Veede*, "Understanding Planets in Ancient Mesopotamia", *Folklore 16* ( November 2001): 24.

[8] Carboni, *Following the Stars: Images of the Zodiac in Islamic Art*, 13.

(a) ʿAjāʾib al-makhlūqāt-678-778-H- Munich, Bavarian State Library. Cod.arab.464 - https://www.digitale-sammlungen.de/en/view/bsb00045957?page=30

(b) Almwālyd-1300 BnF . Arabe 2583 https://gallica.bnf.fr/ark:/12148/btv1b84229574/f16.item.zoom

(c) Kitāb al-Bulhān -1330–1450- Bodleian Library, Oxford- MS. Bodl. Or. 133 https://digital.bodleian.ox.ac.uk/objects/5c9da286-6a02-406c-b990-0896b8ddbbb0/surfaces/b1a0e593-93b7-44ce-b757-02d46d2e4772/

(c) ʿAjāʾib al-makhlūqāt-1350- St. Petersburg, Inst. for Oriental. Students. Ms E7 https://www.akg-images.de/archive/-2UMDHUXQA61U.html

(pl.4) Mercury in Arabic Manuscript

(a) Collection of works in prose and verse,7/13th century - BnF Persan 174 https://gallica.bnf.fr/ark:/12148/btv1b8410888f/f224.item.r=(%E2%80%8EAksaray)%20et%20Qayariya%20(Kayseri)%E2%80%8E

(b) ʿAjāʾib al-makhlūqāt 790-1388 BnF . Supplément Persan 332 https://gallica.bnf.fr/ark:/12148/btv1b8422994d/f60.item

(c) ʿAjāʾib al-makhlūqāt. 1475-1495 BnF Persian 2051 https://gallica.bnf.fr/ark:/12148/btv1b8432229p/f27.item

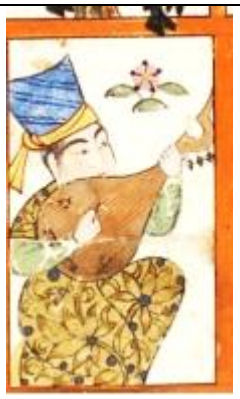
(d) ʿAjāʾib al-makhlūqāt-893- AH BnF . Supplément Persian1781 https://gallica.bnf.fr/ark:/12148/btv1b8427203q/f28.item.r=Suppl%C3%A9ment%20Persan%201781%E2%80%8E

(pl.5) Mercury in persian Manuscript

(pl.6) detail Mercury as a woman Kotyk, Astrological Iconography,pl.4

In contrast, East Asian iconography distinctly depicted Mercury as a woman, wielding a brush and paper—a notable divergence from the masculine representations found in Near Eastern and European traditions. In Chinese culture, the feminine Mercury was represented uniquely[1].(Pl.6)

**Venus:** In Islamic manuscript illustrations and art, Venus was often depicted as a female musician. Its nurturing and compassionate essence had a rich historical lineage beyond Islamic astrology[2]. For example, Al-Majrīṭī referenced narratives ascribed to Apollonius of Tyana and others, noting that Venus was portrayed in certain ancient writings as a standing woman holding an apple in her right hand[3]. The female representation persisted in Islamic manuscript illustrations, as Venus was frequently portrayed as a musician, often depicted seated cross-legged while playing the oud, as seen in the pen case of Mahmud bin Sunqur[4]. In certain instances, Venus engaged with various instruments, such as the tambourine, harp, flute, or cymbals. This symbolic representation endured, even when linked to zodiac signs, exemplified by her image riding a bull – an emblematic symbol of Taurus – while engaging in musical expression, illustrating the enduring nature of the planet's characteristics[5].(Pl.7-8)

| | | |
|---|---|---|
|  (a)‘Ajā’ib al-makhlūqāt-678-778-H- Munich, Bavarian State Library. Cod.arab.464https://www.digitale-sammlungen.de/en/view/bsb00045957?page=32 |  (b)Almwālyd-1300 BnF . Arabe 2583 https://gallica.bnf.fr/ark:/12148/btv1b84229574/f16.item.zoom |   (c)‘Ajā’ib al-makhlūqāt-1350- St. Petersburg, Inst. for Oriental. Students. Ms E7https://www.akg-images.de/archive/-2UMDHUXQA61U.html |
| (pl.7) Venus in Arabic Manuscript | | |

[1] Kotyk, *The Sinicization of Indo-Iranian Astrology in Medieval China*, 68.

[2] Carboni, *Following the Stars: Images of the Zodiac in Islamic Art*, 15.

[3] al Majrīṭī, Ghāyat al-Ḥakīm, 108.

[4] Zādah, Ayt Allāhī, mrāthá, brrsá shmāyl nkārānh khāstkāh Akhtar, 11.

[5] Carboni , *Following the Stars: Images of the Zodiac in Islamic Art*, 15.

(a) Collection of works in prose and verse,7/13th century - BnF Persan 174 https://gallica.bnf.fr/ark:/12148/btv1b8410888f/f223.item.r=(%E2%80%8EAksaray)%20et%20Qayariya%20(Kayseri)%E2%80%8E

(b)'Ajā'ib al-makhlūqāt 790-1388 BnF . Supplément Persan 332 https://gallica.bnf.fr/ark:/12148/btv1b8422994d/f59.item

(c) 'Ajā'ib al-makhlūqāt. 1475-1495 BnF . Persan 2051 https://gallica.bnf.fr/ark:/12148/btv1b8432229p/f28.item

(pl.9) details Kotyk, Astrological Iconography,pl.6

(pl.8) Venus in Persian Manuscript

Following Jupiter, Venus was the second most benevolent planet in the classifications established by astrologers. In East Asian iconography, Venus was depicted as a graceful figure playing the oud, embodying themes of beauty, music, desire, friendship, and, in certain icons, martial prowess. Zhou Dunyi, a Chinese philosopher, associated Venus with a beautiful appearance, a fondness for music, and social openness(Pl.9). Similarly, the astrologer Abu Ma'shar associated it with women, adornment, jewellery, singing, and affection towards friends, illustrating its deep symbolic importance in both Islamic and pre-Islamic thought[1].

**Sun:(Fig.5)** In Islamic art, the sun was often represented through various visual interpretations, sometimes as a full human figure or as a human visage encircled by emanating rays. This symbolic representation illustrated the acknowledgement of the sun's crucial significance as a fundamental element for life on Earth, as well as the conviction in its pivotal function as the primary force driving the universe. In ancient beliefs, the sun had a central role, revered as a deity, symbolising the ultimate governing force of the cosmos in various cultures[2]. In Akkadian and Sumerian civilisations, the sun was personified by "Shamash" (referred to as Utu in Sumerian), the firstborn of the moon god and the sibling of the goddess Ishtar[3]. In these manuscripts, the sun consistently was subordinate to the moon, while being referred to as the "queen of the planets"[4]. In late Roman beliefs, "Mithra " was the embodiment of the sun, whereas in the Babylonian and Nabatean perceptions, transmitted through the Sabians of Harran, the sun was the centre of the universe and the principal source of influence over other

[1] Kotyk, *The Sinicization of Indo-Iranian Astrology in Medieval China*, 65.

[2] 'Abd al-Mun'im, al-ta'bīr 'an al-Tanjīm fī al-fann al-Rūmānī, 177.

[3] Kasak; Veede, *Understanding Planets in Ancient Mesopotamia*, 17.

[4] Maiywa-Masai, *The Solar System as a New Pantheon of Gods*, 3.

planets. This perspective was manifested in Muslim manuscripts. Al-Majrīṭī reported "...All action within the world pertains to the sun, while the moon and the seven wanderers follow obediently and submit to it willingly..."[1]. He provided descriptions of the sun in various ancient texts, including those on planetary representations and their associated symbolic and spiritual advantages. He highlights the diverse portrayals between astronomical symbolism and talismanic interpretations. Referencing *the Benefits of Stones,* he described the figure of a standing man, seemingly welcoming those before him, while grasping a shield in his left hand, with a dragon positioned beneath his feet. In Criton's *Interpretation of Spiritual Talismans*, translated by Hippocrates, he depicted the sun as a sovereign seated upon a throne, adorned with a crown, a crow before him, and a dragon beneath his feet. Al-Majrīṭī stated: "...I have discovered in additional sources that the most prominent celestial body is depicted as a crowned figure standing upon a wheel drawn by four horses, grasping a mirror in his right hand and a shield in his left, fully attired in yellow[2]."

(Pl.10) Bowl late 12th–early 13th century- Central or Northern Iran- the Met . museum 57.36.4 https://www.metmuseum.org/art/collection/search/451379

(pl.11 )Zodiac signs, 10th /15th century - Topkapisaray Library in Istanbul. https://www.akg-images.de/CS.aspx?VP3=SearchResult&VBID=2UMESQ6P364WM&SMLS=1&RW=1920&RH=931&PN=8&POPUPPN=450&POPUPIID=2UMDHUXQZZII

Muslim artists did not perceive the sun as a wandering planet, but rather as a universal symbol with complex meanings that transcended its astronomical functions to hold authoritative and spiritual significance. The sun was associated with the symbolic awareness of light and power, representing supreme power, particularly in artistic contexts relevant to the elite. Within astrology, the sun was the lord of Leo, which embodied worldly authority and physical strength, promoting the sun's prominent role in manuscript illustrations and visual representations. Thus, the sun was central to planetary representations, commonly situated at the core of circular arrangements encircled by the six other planets (Pls.10-11).

Al-Qazwini elucidated this representation by discussing the sun's cosmic position: "One of God's wondrous graces is positioning the sun at the centre of the seven planets to sustain nature and beings through its harmonious motion." Had it existed within the realm of fixed stars, the very natures would have succumbed to an unyielding frost... Had it ventured into the lunar domain, it would have incinerated the world entirely.

[1] al Majrīṭī, *Ghāyat al-Ḥakīm*, 219.

[2] al Majrīṭī, *Ghāyat al-Ḥakīm,* 107.

Through divine mercy, it was created in a state of motion; otherwise, heat would accumulate in one location while cold would dominate in another"[1]. The sun was represented in various forms- as a figure upon a throne, grasping a solar disc (Pls. 12/a.) or as a human visage encircled by radiant golden rays (Pls.12/b-c-d.)( Pl.13).

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<td>  <br>(a) ʻAjāʼib al-makhlūqāt-678-778-H- Munich, Bavarian State Library. Cod.arab.464 https://www.digitale-sammlungen.de/en/view/bsb00045957?page=33</td>
<td>  <br>(b)Almwālyd-1300 BnF . Arabe 2583 https://gallica.bnf.fr/ark:/12148/btv1b84229574/f38.item</td>
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<td>  <br>(c) Kitāb al-Bulhān -133 –1450- Bodleian Library, Oxford- MS. Bodl. Or. 133. https://digital.bodleian.ox.ac.uk/objects/5c9da286-6a02-406c-b990-0896b8ddbbb0/surfaces/c5a19b4a-35d5-4b09-8f05-f9b4ffb984b6/</td>
<td>  <br>(d)<br>ʻAjāʼib al-makhlūqāt-1350- St. Petersburg, Inst. for Oriental. Students. Ms E7 https://www.akg-images.de/archive/-2UMDHUXQA61U.html</td>
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<td colspan="2">(Pl. 12)Sun in Arabic Manuscript</td>
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<td>  <br>(a) Collection of works in prose and verse,7/13th century - BnF Persan 174 https://gallica.bnf.fr/ark:/12148/btv1b8410888f/f228.item.r=(%E2%80%8EAksaray)%20et%20Qayariya%20(Kayseri)%E2%80%8E</td>
<td>  <br>(b)ʻAjāʼib al-makhlūqāt 790-1388 BnF . Supplément Persan 332 https://gallica.bnf.fr/ark:/12148/btv1b8422994d/f51.item</td>
<td>  <br>(c) ʻAjāʼib al-makhlūqāt. 1475-1495 BnF . Persan 2051 https://gallica.bnf.fr/ark:/12148/btv1b8432229p/f29.item</td>
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<td colspan="3">**(pl. 13)Sun in Persian Manuscript**</td>
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[1] al-Qazwīnī "(. Zakarīyā ibn Muḥammad ibn Maḥmūd t 1238m), ʻAjāʼib al-makhlūqāt wa gharāʼib al-mawjūdāt, nuskhah 1176h / 1762-1763, Maḥfūẓ fī ālmktbh al-Ahlīyah bi-Bārīs raqm al-ḥifẓ ARABE 2178 – 14 wajh.

( pl.14)pen case of Maḥmūd ibn Sanqar- 680AH. British Museum, Hartner, The Vaso Vescovali, Fig.4-5

It was distinctly manifested in a rare artefact of Mahmud bin Sunqur's pen case or as a golden disc emanating rays from the artistic composition's core(Pl.14), surrounded by other planets, illustrating a cohesive comprehension of the sun's cosmic and symbolic significance within both astronomical and artistic symbolism[1].

(Fig 4) Mercury From pl. 5 a

(Fig 5)Zodiac signs from pl.11

**Mars**: Mars features a striking red hue and swift movement, making it a longstanding symbol of war and aggression[2]. Ranked second as the most malevolent planet following Saturn, it is often referred to as "the Lesser Malefic." Islamic manuscripts depicted Mars as a male figure adorned in armour, brandishing a sword in his right hand while grasping a severed, blood-dripping head in his left to underscore the violent and combative essence. (Pls.15)

(a)'Ajā'ib al-makhlūqāt-678-778-H- Munich, Bavarian State Library. Cod.arab.464 https://www.digitale-sammlungen.de/en/view/bsb00045957?page=36

(b)Almwālyd-1300 BnF . Arabe 2583 https://gallica.bnf.fr/ark:/12148/btv1b84229574/f16.item

(c)Kitāb al-Bulhān -1330 –1450- Bodleian Library, Oxford- MS. Bodl. Or. 133 https://digital.bodleian.ox.ac.uk/objects/5c9da286-6a02-406c-b990-0896b8ddbbb0/surfaces/6f627b6d-c6cd-4c01-a440-cd51664e09cf/

Pl.15 ***Mars*** in Arabic manuscripts

[1] James W. Allan. *Islamic Metalwork: The Nuhad Es-Said Collection*. (London: Sotheby Publications, 1982),183.

[2] Maiywa-Masai, The Solar System as a New Pantheon of Gods: How Modern Astronomy Reimagined the Heavens, https://doi.org/10.1371/Journal.0148257

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| (a)<br>Collection of works in prose and verse,7/13th century - BnF Persan 174- https://gallica.bnf.fr/ark:/12148/btv1b8410888f/f227.item.r=(%E2%80%8EAksaray)%20et%20Qayariya%20(Kayseri)%E2%80%8E | (b)<br>'Ajā'ib al-makhlūqāt 790-1388 BnF . Supplément Persan 332 https://gallica.bnf.fr/ark:/12148/btv1b8422994d/f58.item | (c)<br>'Ajā'ib al-makhlūqāt-893- AH BnF . Supplément Persian1781 https://gallica.bnf.fr/ark:/12148/btv1b8427203q/f32.item.r=Suppl%C3%A9ment%20Persan%201781%E2%80%8E |
| Pl. 16 *Mars* in persian manuscripts | | |

The Indian influence was apparent, with Mars depicted with four arms, adorned in a tiger-skin skirt, and -wielding a bow, arrow, and blade. This representation resembled the Hindu deity and some Islamic manuscripts in Iran (Pl.16/a)[1].

The *Brahmadeva Saptagraha* portrayed Mars as "a formidable youth exhibiting an expression of anger, adorned in a garment of tiger skin, holding a blade in his right hand, with meticulously groomed hair and beard, a body of red hue, and a golden crown." In Indian beliefs, Mars was related to Mangala, the god of war and fire"[2]. Al-Majrīṭī observed that Mars was represented as "a man on a lion, holding a sword in his right hand and a human head in his left"[3].

**Jupiter**: Jupiter was often referred to by Arab astrologers as "the Greater Benefic," due to its more profound influence than Venus. It embodied wisdom, law, and order. It was depicted as an adult male figure with a black beard and a turban, symbolising the Arab-Islamic heritage and profound understanding of legal and religious issues. Adorned in a lengthy robe, Jupiter adopted a squatting posture, orientated towards the front, embodying a demeanour balanced and responsible, characteristic of a wise, formidable, and reliable judge[4] (Pls.17).

[1] Kotyk, The Sinicization of Indo-Iranian Astrology in Medieval China, 63.

[2] Adalbert Gail, Planets and Pseudoplanets in Indian Literature and Art with Special Reference to Nepal, *East and West*, December 1980, Vol. 30, No. 1/4 (December 1980), 144-145.

[3] al Majrīṭī, Ghāyat al-Ḥakīm, 219.

[4] Carboni, Following the Stars: Images of the Zodiac in Islamic Art, 19.

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| (a)<br>ʿAjāʾib al-makhlūqāt-678-778-H- Munich, Bavarian State Library. Cod.arab.464 www.digitale-sammlungen.de/en/view/bsb00045957?page=37 | (b)<br>ʿAjāʾib al-makhlūqāt 790-1388 BnF . Supplément Persan 332 https://gallica.bnf.fr/ark:/12148/btv1b8422994d/f57.item | (c)<br>Kitāb al-Bulhān -1330 –1450- Bodleian Library, Oxford- MS. Bodl. Or. 133 https://digital.bodleian.ox.ac.uk/objects/5c9da286-6a02-406c-b990-0896b8ddbbb0/surfaces/a6371195-1eab-4f57-ac25-23223b6ce753/ | (d)<br>Collection of works in prose and verse,7/13th century - BnF Persan 174 https://gallica.bnf.fr/ark:/12148/btv1b8410888f/f226.item.r=(%E2%80%8EAksaray)%20et%20Qayariya%20(Kayseri)%E2%80%8E |
| *Pl.17 Jupiter* | | | |

In Babylonian mythology, Jupiter was associated with Marduk, the king and chief god of the city-state, symbolising power[1]. Jupiter was often depicted holding a book or scroll to denote Marduk's role in determining fate during the New Year's festival. According to some texts, Jupiter was described as "one who commands and issues the decrees of fate." In Greek and Roman mythology, Jupiter, the largest planet, represented the king of the gods[2]. The Persians associated Jupiter with Ahura Mazda, the supreme. According to Abu Ma'shar, Jupiter represented power and authority. In Chinese and Islamic astrology, Jupiter was regarded as a fortunate and benevolent planet that could bring wealth and happiness[3].

**Saturn**: (Fig.6) Saturn was often portrayed as an aged figure, characterised by dark skin and a long, white beard, holding an axe or a sickle, and wearing trousers or a skirt. Astrologers linked it to black, attributing a sense of authority over far-flung territories to it, elucidating its representation in dark or black hues. In Islamic art, the depiction of Saturn revealed a notable Indian influence, often manifesting as a multi-armed figure like Hindu deities. Nevertheless, it was depicted as a two-armed figure of a human holding an axe, representing humble work, including agriculture[4] (pls.18).

[1] Kasak; Veede, *Understanding Planets in Ancient Mesopotamia*, 20.

[2] Maiywa-Masai, "The Solar System as a New Pantheon of Gods: How Modern Astronomy Reimagined the Heavens," https://doi.org/10.1371/Journal.0148257

[3] Kotyk, *The Sinicization of Indo-Iranian Astrology in Medieval China*, 61.

[44] Carboni, *Following the Stars: Images of the Zodiac in Islamic Art*, 21.

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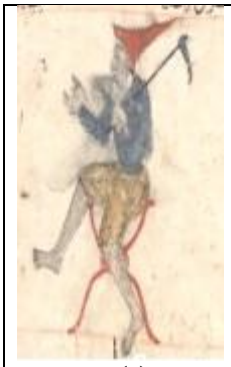
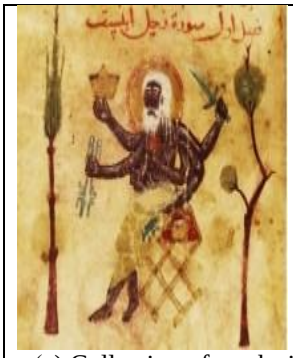
|  (a) ʿAjāʾib al-makhlūqāt-678-778-H- Munich, Bavarian State Library. Cod.arab.464 https://www.digitale-sammlungen.de/en/view/bsb00045957?page=38 |  (b) Almwālyd-1300 BnF . Arabe 2583 https://gallica.bnf.fr/ark:/12148/btv1b84229574/f22.item |  (D) Kitāb al-Bulhān -1330 – 1450- Bodleian Library, Oxford- MS. Bodl. Or. 133 https://digital.bodleian.ox.ac.uk/objects/5c9da286-6a02-406c-b990-0896b8ddbbb0/ |  (Fig.6) Saturn |
| Pl.18 **Saturn** in Arabic manuscripts | | | |

The Purana texts depicted Saturn as the progeny of the Sun, characterised by a black or dark blue hue [1]. In Mesopotamian beliefs, Saturn was associated with Ninurta, initially revered for its connections to agriculture and fertility, but later embodied warfare. It was frequently represented, holding a bow and arrow or a sword and sickle[2](Pls.19) Saturn was the most evil planet in East Asian iconography, depicted as a bearded man holding a stick, following the Greco-Egyptian pattern of Kronos harvesting wheat with a sickle, associated with the bull because of wearing a "bull's hat" or riding a bull. Chinese artists usually depicted Saturn as a dark-skinned, bearded, and slightly hunched Indian man, as evident in an inscription with Saturn's image in the *Divine Forms of the Five Planets and Twenty-Eight Constellations* (Osaka City Museum of Fine Arts, (Pl. 20), reading "Saturn is the Imperial Overseer. Activities related to water and land should be conducted- building temples, farmlands, and dams"[3].

[1] Andreas Leitz, *Astronomy in Indian Vedic Period, Sumer and Babylon . A comparative Study A study of the ancient astronomical texts from these ancient cultures* (India: Vedicreligion Institute For Vedic Research And Publication, 2019), 27.

[2] Kasak; Veede, *Understanding Planets in Ancient Mesopotamia*, 26.

[3] Kotyk, *The Sinicization of Indo-Iranian Astrology in Medieval China*, 56.



(a) Collection of works in prose and verse,7/13th century - BnF Persan 174- https://gallica.bnf.fr/ark:/12148/btv1b8410888f/f225.item.r=(%E2%80%8EAksaray)%20et%20Qayariya%20(Kayseri)%E2%80%8E

(b) ʻAjāʾib al makhlūqāt. 1475-1495 BnF . Persan 2051https://gallica.bnf.fr/ark:/12148/btv1b8432229p/f33.item

(c)ʻAjāʾib al-makhlūqāt-893- AH BnF . Supplément Persian1781 https://gallica.bnf.fr/ark:/12148/btv1b8427203q/f33.item.r=Suppl%C3%A9ment%20Persan%201781%E2%80%8E

(Pl.20) Planet Saturn – 6th century- detail from a horizontal scroll painting. Silk. Osaka, National Museum of Art." Tang-china Kotyk, The Sinicization ,Fig.11

Pl.19 Saturn in Persian manuscripts

In sum, the representations of planets in previous (Babylonian, Greek, Roman, Indian, and Chinese) civilisations were almost similar except for slight differences. They were associated with deities, even with different names, with corresponding characteristics.

**Talismanic Role of the Seven Wandering Planets' Personified Representations:**

The humanised depictions of these planets held considerable talismanic significance in the artistic expressions and astrological doctrines of ancient civilisations, especially wherein astronomy converged with astrology and magic. They were not represented as celestial bodies affecting human fates but were personified, adorned with distinct symbols of their roles and impacts, gaining ritualistic and talismanic importance in manuscripts, artefacts, and amulets. This representation was not decorative only but fulfilled protective functions of safeguarding against its evils and gaining benefits. In Islamic manuscripts, Mars was a blood-stained warrior to ward off aggression and protect warriors. Venus took a beautiful female form, holding musical instruments to invoke love and cohesion. In Indian and Persian contexts, every planet played a role in the universal system and personal impact, activated in representations on scrolls, amulets, or zodiac signs. Additionally, it was believed that having the planet's image with the name or a talisman could be used to avoid negative effects or gain blessings[1].

The seven planets and zodiac signs were engraved on artefacts or depicted individually to harness spiritual power[2] during specific timings, particularly in Northern Iraq, Syria, Southeastern Turkey, Iran, and Eastern Khorasan, known for planetary worship. These motifs appeared on artefacts created for rulers and court officials on Seljuk metalwork

[1] Carboni, *Following the Stars,* 7-8.

[2] Al-Tabari documented the practices of the Sabians for the invocation of planetary powers and the specific conditions for petitioning each planet. He delineated their functions, as follows:"…Petition the sun for issues of kings, rulers, crown-bearers, as well as those in authority and power, nobles, and commanders…; petition Venus for affairs of women, concubines, lovers, and passion…; petition Mercury for issues of scribes, accountants, astrologers, and orators…. al Majrīṭī, Ghāyat al-Ḥakīm, 191-218.

and ceramics. The accompanying inscriptions with talismanic content demonstrated the protective significance of these symbols. The oldest bronze mirror with the seven planets was created in 548 AH/ 1153 CE in Antolia or Iran (Pl.21), currently kept in the Museum of Islamic Art in Cairo. It had inscriptions of manufacturing date and function, reading "bi-samm Allāh al-Raḥmān al-Raḥīm ʿmlt Hādhihi al-mirʾāh al-mubārakah fī Ṭāliʿ Saʿīd Mubārak wa-hiya Inna shāʾa Allāh tnfʿ lldqh wllmṭlqh wa-sāʾir al-awjāʿ wa-al-ālām Tajabbar bi-idhn Allāh Taʿāla ....." ".... ʿmlt fī nuzūl – alshms-Burj – alḥml-sbʿ-Maʿādin". Thus, including the planetary sign in the artwork provided treatment and talismanic functions to ward off illness and bad luck, as the mirror was created in a time of Solar Aries ingress, highlighting the critical role of celestial bodies in artwork[1]. Another example was a Seljuk ($12^{th}$-$13^{th}$ CE century) Iranian Minai ceramic dish (Pl.10), featuring a central medallion with a human-faced sun disk, surrounded by six personified planets, and border inscriptions wishing happiness, blessings, and health[2].
Muslim historians, e.g., al-Bīrūnī (973-1048 CE), recognised the talismanic importance of planetary representations[3]. Al-Kindī explored this topic in "*The Wise Letters on Spiritual Secrets*," wherein he scrutinised planetary conditions and their attributes. In the first epistle, he endeavoured to illustrate that the planets are rational entities, with spiritual natures and active intellects, which govern the world under the authority of the eternal Creator who orchestrates their movements. He devoted the second epistle to "the spiritual nature of the planets" and the third to "the evocation of spirits"[4].

*(* pl.21) a bronze mirror - 548 AH / 1153CE Museum of Islamic Art in Cairo
Baer,*Metalwork in Medieval Islamic art*,(Newyor:1983):Pl.202

Concerning the influence of planets on human life, Muslims were influenced by ancient civilisations, particularly the Babylonians, among the people of Ḥarrān[5]. It had been thought that planets and stars exerted positive and negative effects on health,

[1] Carboni, *Following the Stars*, 6.

[2] https://www.metmuseum.org/art/collection/search/451379

[3] Carboni, *Following the Stars,* 13.

[4] al-Kindī , *thalāth Rasāʾil fī al-Kawākib wāstḥdār al-arwāḥ*, taḥqīq Yūsuf Ḥabbī, Ḥikmat Najīb, Majallat al-Mawrid al-ʿIrāqīyah, mj8, ʿ1, ( Baghdād: 1979), 163-206

[5] Ibn Alnadim argued that "some philosophers and star-worshippers claimed that they created talismans to collect extraordinary actions- inciting passions, arousing affections, and gaining dominance. They engraved [these powers] onto stones, beads, and gemstones. This was a widespread and evident practice among philosophers. The Indians held beliefs in such [magic], performing wondrous acts, while the Chinese employed tricks and sorcery of another kind. The Indians, in particular, cultivated the 'science of illusion' (*ʿilm al-tawahhum*) and possessed books on the subject, some of which were translated into Arabic..." Ibn al-Nadīm, *al-Fihrist*. Ed. Riḍā Tajaddud. (Beirut: Dār al-Maʿrifa, 1983): 429-430.

wealth, and human destiny[1]. The Babylonians and Greeks classified some planets as beneficent, such as Jupiter and Venus, while others were considered malefic, e.g., Saturn and Mars[2].

**Astrological and Astronomical Beliefs in Ancient Civilisations**: Investigating the diverse influences on Islamic astrology is challenging, owing to the intricate interplay and the confluence of cultures that contributed to the development of this discipline. Astrology developed because of rich, multicultural knowledge, wherein various civilisations drew upon one another's insights, culminating in notable parallels in astrological and astronomical beliefs across ancient societies[3].

**Astrology in Mesopotamia (Harrān):** The Babylonians and Chaldeans were fascinated with astronomy and astrology, particularly in their veneration of celestial bodies. The renown of Babylonian astrologers had been firmly established, as evidenced in the Roman and Greek historical accounts, wherein the designation "Chaldeans" corresponded to Babylonian scholars[4]. The Babylonians served as a fundamental source of education for numerous astronomers, including Ptolemy of Alexandria, who knew methods and knowledge rooted in Babylonian traditions. By the late 5th BCE century, Babylonian astronomers developed the zodiac circle and innovated methods of predicting lunar and celestial phenomena. Simultaneously, they developed astrology that used the zodiac, moon, sun, and planets to predict world events[5].

They believed that stars and planets were physical manifestations of divine powers not independent deities. Religious beliefs in Mesopotamia included prayers to planets and stars as representatives of deities. In Harrān[6], Sabian belief[7] existed- a pagan religion combining elements of Babylonian astrology and Greek tradition. They inherited the

[1] Angélica Hernández Ramos, Navagraha, planetary icons from India to Japan and China and Japan, University of Puerto Rico Río Piedras Campus May 2020: 2.

[2] Willy Hartner, "The Vaso Vescovali in The British Museum: A Study on Islamic Astrological Iconography", *Kunst des Orients*, Vol. 9, H. 1/2, (1973/74): 103.

[3] Astrology is a field of knowledge based on celestial movements to predict the unseen. It differs from astronomy in being magical, while the latter uses scientific measurement of celestial bodies. Gleadow, Rupert, *The origin of the zodiac*, (Mineola, New York: Dover Publications, 2001), 15.

[4] Chaldeans controlled the Babylonian Empire between 625 and 539BCE at the hands of King Cyrus II of Persia. They were highly interested in astrology that Chaldean mean astrologist. Īlī Munīf Shahlā, *qiṣṣat al-tanabbu' bi-al-ghayb 'abra al-tārīkh*,(Dimashq,Sūriyā: al-Ahālī lil-Ṭibā'ah wa-al-Nashr wa-al-Tawzī', 1999), 27.

[5] Ossendrijver, Mathieu. "The moon and planets in ancient mesopotamia.", *Oxford Research Encyclopedia of Planetary Science*, (USA: Oxford University Press, 2020), 1.

[6] Ancient Harrān was in northwest Mesopotamia near the source of the Balikh River, a tributary of the Euphrates, near Edessa. It was conquered by Muslims in 18 AH/639CE and was a centre of Marwan ibn Muhammad, the last Umayyad caliph. Mahmoud ibn Malek Shah the Seljuk assigned its rule to the Zengids from 521 AH/ 1127 CE to 582 AH/ 1186 CE. Then, it was ruled by the Ayyubids until 658 AH/ 1259 CE.; Hasan Mohamed Nur, "Great Mosque of Harran: A Historical Architectural Study". *Annal of Union of Arab Archaeologists*, Vol. 20, No. 1, (2017): 835.

[7] The Sabians of Harran were a religious community that engaged in worshipping celestial bodies, situated in Harran and Mesopotamia. Their distinction from the Sabians referenced in the Quran is noteworthy; they were afforded protected status (dhimmi) under Islamic governance, contributed the jizya tax, and were recognised as adherents of the faith of Prophet Abraham (peace be upon him). The Quranic Sabians held a belief in monotheism and regarded Yahya ibn Zakariya as the final prophet dispatched to their community. There is a common tendency to conflate the two groups, particularly given their shared habitation of Harran. See Ihab Muhammad Isa Muhammad, "The Sabians: Reality and Origins of Their Beliefs", *Journal of the Faculty of Theology and Da'wah*, no. 35, vol.1 (2017): 1278-1344. Yadalah Maliki - Ja'far Taban Abd al-Ridha Mazra'a, "The Sabians: Emergence and Spread - A Historical Reading," *Lights of Islamic Civilization*, vol. 1, no. 1, (2024): 188-214.

Babylonian knowledge of astronomy and astrology[1]. Muslim scholars recruited them to translate astronomical and astrological manuscripts because of the Greek and Syriac languages, especially Thabit ibn Qurrah[2] of the Ṣābians of Ḥarrān[3]. Some Central Asian civilisations, like the Sogdians, were also influenced by these beliefs.

While cuneiform texts provided descriptions of Mesopotamian deities linked to planets, some representations were missed except for the sun and moon, and sometimes Marduk and Ishtar. The lack of representations constrains our visual comprehension of these planetary deities within Mesopotamian civilisation[4].

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[1] Mesopotamia, particularly Harran and Edessa, flourished scientifically in the pre-Islamic era. Its scholars engaged in science, translating Greek works into their language, especially philosophy and medicine. Some assumed leadership positions at Gondishapur Hospital, where Greek was taught in their schools. When the caliphate moved to Iraq and Baghdad thrived with arrivals from the Islamic and other states, these Syriac-speaking scholars sought opportunity: Learning Arabic, integrating comfortably with Arabs and Muslims, appreciating the Abbasids' justice and religious tolerance that they often mediated disputes among their sects or bishops. Thus, numerous Persians relocated to Baghdad. As administrators, they were engaged in governance in conjunction with several Persian scholars. The caliphs additionally engaged Indian physicians for their considerable medical knowledge. During the Abbasid era, the endeavour to translate scientific texts into Arabic was significantly supported by scholars from Iraq, Syria, Persia, and India. Caliphs encouraged this endeavour through substantial remuneration, salaries, and accolades, drawing numerous translators—predominantly Nestorian Syrians—thanks to their adeptness in Greek and familiarity with Hellenistic philosophy and science. Translations from Persian or Indian languages evolved into a familial vocation, often passed down through generations, such as the Bukhtishu‘ family (six Nestorian physicians, beginning with Jibril ibn Bukhtishu‘, physician of al-Mansur, the Hunayn family, notably Hunayn ibn Ishaq, the Thabit family, beginning with Thabit ibn Qurra, a Sabian from Harran, and Ibn Wahshiyya, who translated various works from Nabataean (Chaldean) to Arabic. Jurji Zaydan, History of Islamic Civilisation (Vol. 3), Hindawi Foundation 2012 [original edition 1904]:176.

[2] Thabit ibn Qurrah was a prominent Sabian scholar and played a key role in the flourishing Abbasid translation from the Greek and Syriac to Arabic. He translated a chapter in Claudius Ptolemaeus’s *The Guide of the Perplexed* because the original was missing. Aḥmad ‘Abd al-Mun‘im al-‘Adawī, al-Ṣābi’ah mundhu ẓuhūr al-Islām ḥattá suqūṭ al-khilāfah al-‘Abbāsīyah,(al-Qāhirah : ru’yah lil-Nashr wa-al-Tawzī‘, 2012): 308. The first Sabian to achieve an outstanding reputation was Thabit ibn Qurrah, born, probably at Harran, in about 836 —that is, six years after the visit of al-Ma'mun to Harran. On returning from his studies in Baghdad, Thabit came into conflict with the Sabian authorities in Harran he was forbidden access to their temples. Subsequently, he recanted, but afterwards his relations with the community again became so strained that he withdrew altogether from Harran. He was later appointed an astronomer to the Caliph in Baghdad, where he spent most of his life. He was on such intimate terms with the Caliph al-Mu'tadid that he alone had the right to sit in the royal presence; even the Vizier stood. Thabit was a prolific translator and writer, and his treatises —which range from metaphysics, history, music and astrology to medicine, mathematics and astronomy—had a great influence on contemporary thought. He established a Sabian community in Baghdad and directed its affairs. Thabit's treatise on the doctrines and rites of the Sabians has apparently not survived. Thabit died in 901. He had established a family tradition of culture which extended over two centuries. His son Sinan was a physician to the Caliph and founded several hospitals. Sinan's attainments were not confined to medicine; he was also an astronomer, philosopher and historian, and he was celebrated as a man of great humanity and tolerance. He adopted Islam, but his children remained Sabians. They, too, achieved fame in the same fields of learning. Segal, The Sabian Mysteries The Planet Cult of Harran, 223.

[3] David Pingree, “The Ṣābians of Ḥarrān and the Classical Tradition”, *International Journal of the Classical Tradition*, Summer, 2002, Vol. 9, No. 1 (Summer, 2002): 11.

[4] David Pingree, "Representation of the planets in Indian astrology”, *Indo-Iranian Journal ,* Vol. 8, No. 4 (1965): 254.

The Harranians had a profound understanding of celestial motions, shaped by Ptolemy's Almagest[1], particularly his propositions in Book II of Planetary Hypotheses. This theory suggests that planets are imbued with spirits and exert their agency in navigating the cosmos, aligning their movements with celestial patterns that can be elucidated through eccentric orbits and celestial circles. The Harranians were likely the "heretics" mentioned in Jacob of Edessa's Hexaemeron, a work that was developed until he died in 708 CE. He challenged the interpretations of planetary movements, highlighting planets' life, reason, and free will, viewing them as deities exerting influence over earthly matters[2]. This significant influence, especially in astronomy and astrology, on Harran resulted from substantial Greek relocations there after Alexander's conquest. Thus, their Syriac Christian neighbours called it Helleno-polis. Other names included "Harranians" and "Chaldeans"[3].

The Sabians prayed to the seven wandering planets, believing that they served as intermediaries between people and the supreme god. These spiritual beings inhabited and guided planets. Each planet influenced a group of people: Saturn affected those in power, Jupiter affected sages and philosophers, Mars affected warriors and aggressors, the sun affected those of high social status, Venus affected women, children, and artists, Mercury affected scholars, and the moon affected farmers. These concepts agreed with Islamic perspectives on planetary representations[4]. Edessa, whose people almost converted to Islam in the 4th CE century, had experienced planetary worship, like Harran, Palmyra, and Hierapolis, with coins featuring a crescent over the crown (pl.22)[5].

**Greek Astronomy and Astrology**: Like the Babylonians and Harranians, the Romans believed in the planet-god relation based on some characteristics, such as the planet's colour, movement, and brightness. These gods were believed to be governing gods, expressed as full or half statues with symbols expressing their function or characteristic[6]. Like the Babylonian belief, the seven planets were considered divine powers affecting life, love, and beauty[7]. A notable example is a high relief of planetary deities within the zodiac found on the northern ceiling of the thalamus in the Temple of Baal in Palmyra, dated to the reign of Emperor Tiberius in 32 CE (resembling the

[1] It is an astronomical encyclopaedia by the Greek astronomer Ptolemy in 148 in Alexandria. It includes pictures of known planets and was translated into Arabic by Arab and Muslim scholars in the Middle Ages. George Saliba, *Islamic Science and the Making of the European Renaissance*, (London: MIT Press, 2007), 14.

[2] David Pingree, "The Ṣābians of Ḥarrān and the Classical Tradition", *International Journal of the Classical Tradition*, Summer, 2002, Vol. 9, No. 1 (Summer, 2002): 14. It was translated at least four times into Arabic in the 8th century, indicating significant interest in it. However, no Greek manuscripts of Ptolemy were reproduced until the Middle Ages.

[3] al-'Adawī, al-Ṣābi'ah, 103.

[4] Segal, *The Sabian Mysteries The Planet Cult of Harran*, 218-219.

[5] J.B Segal, *Edessa, 'The Blessed City*", (Oxford:Clarendon Press,1970): 50.

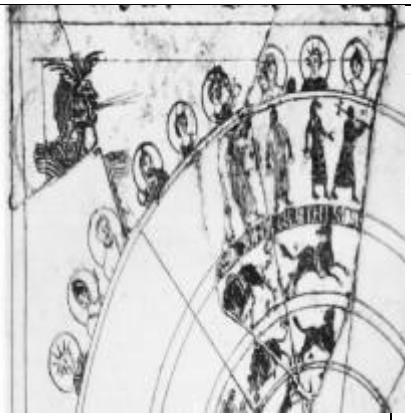
[6] Rayḥān, al-ta'bīr 'an al-Tanjīm fī al-fann al-Rūmānī "Dā'irat al-Burūj namūdhajan", 228.

[7] Tamsyn Barton, *Ancient Astrology*, (London & New York: Taylor and Francis Library, 2003), 111-112.

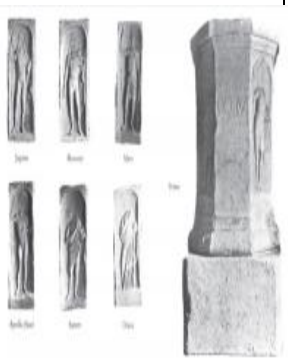
zodiac in Islamic art with half figurines of the seven planets within hexagonal shapes surrounded by the zodiac in the four corners[1].

PL.22
ancient Edessan coinage.
J.B Segal, *Edessa*,Pl.28b

(PL. 23) the ceiling of the northern thalamos in the Temple of Bel. Laster-john, 1990, fig.24



(PL.24 )the Bianchini Marble Relief late 2nd and early 3rd centuries CE the Louvre Museum. Evans,"The astrologer's apparatus, Fig.2



(PL.25) altar - in the Metz Museum- a 3rd-century, Barton, *Ancient Astrology*, Pl.8

The Bianchini Plaque(Pl.24), a marble tablet dating from the late $2^{nd}$ to early $3^{rd}$ CE century, currently housed in the Louvre, features medallions depicting the seven planetary deities: Saturn with a sickle, Jupiter with a sceptre, Mars with a spear, Sol with a radiant crown, Venus with a mirror, Mercury with a caduceus, and Luna with a crescent, arranged according to the Greek planetary sequence from Saturn to the Moon[2]. A third-century altar housed in the Metz Museum corroborates this tradition by personifying the seven planets (pl.25)[3].

**After Christianity in Europe**, personifying planets contradicted Christian teachings, considered homage to pagan idols. However, planets could not be neglected as an important part of cosmology. Thus, the five planets were simply represented with small heads and no full representations that were only stars in some manuscripts. Later, Muslims translated Greek manuscripts from Harran and decorated them with personified planets, avoiding previous symbolism that associated them with pagan deities. They were influenced by the astrological significance of planets, which was believed to impact human life, although this concept is prohibited in Islam.

**Persian Astronomy**: The Persians were one of the ancient civilisations that engaged in astronomy and astrology before the advent of Islam. Instances of Persian planetary depictions are scarce, predominantly featuring the lunar crescent on Sasanian artefacts, along with a limited number of Central Asian visual sources from Sogdian or Bactrian origins[4]. The oldest recorded Persian interest in astrology dates to Sasanian King Shapur

[1] Rayḥān, al-ta'bīr 'an al-Tanjīm: Fig. 151.

[2] .James Evans, "The astrologer's apparatus: a picture of professional practice in Greco-Roman Egypt", *Journal for the History of Astronomy*, Vol. 35, Part 1, No. 118, (2004),8,fig.2

[3] Rayḥān, al-ta'bīr 'an al-Tanjīm, 404.

[4]Antonio Panaino, *The Conceptual Image of the Planets in Ancient Iran and the Process of Their Demonization: Visual Materials and Models of Inclusion and Exclusion in Iranian History of Knowledge*, 362 https://link.springer.com/article/10.1007/s00048-020-00244-w#Sec9

I (241-271 CE), who commissioned the compilation of Indian and Greek astronomical manuscripts, as noted in the Dēnkard [1]. Al-Biruni's 10th-century treatise, "al-Tafhim," referenced this, as did the narrative of King Khosrow Anushirvan (531-579 CE), who promoted collaboration among Greek, Indian, and Syrian astronomers in Iran. Ferdowsi observed that the throne of the last Sasanian monarch, Khosrow II (590-628 CE), was adorned with representations of the seven planets and twelve zodiac signs. Furthermore, Sanskrit astronomical works were common in Iran. Early Muslims were influenced by several Indian theories, which were later incorporated into Persian/Pahlavi works. Sanskrit works also had a direct influence[2]. Muslims employed several scholars, such as Abū Sahl al-Faḍl ibn Nawbakht, a Zoroastrian from Ahvaz who converted to Islam, Māshāʾallāh ibn Atharī, a Persian Jew from Basra, ʿUmar ibn Farrukhān of Tabaristan (these three participated in establishing Baghdad's horoscope), Al-Faḍl ibn Sahl of Sarakhs, Sahl ibn Bishr, a Jewish scholar in Khorasan, Abū Ḥafṣ ʿUmar al-Ṭabarī, and the famous astronomer Abū Maʿshar ibn Muhammad ibn ʿUmar al-Balkhī (d. 227/886 CE)[3].

**Indian Effect**[4]: Notably, there were significant effects on the personification of planets in Islamic manuscripts, as evident in the great similarity with Indian gods. For example, Mars was depicted similarly to the Hindu god Sani in narrative and iconography. Some planetary figures were depicted with several arms, echoing Hindu divine imagery (Pls.5/a-8/a-12/a- 16/a-17/d- 19/a-b-c). The Indian influence could be seen in Islamic manuscript illustrations. For instance, *Daqāʾiq al-Ḥaqāʾiq* shows Saturn as a dark-skinned elderly man, half-naked with a beige loincloth, holding various items, e.g., a crown, keys, a dagger, a mouse, a small basket, and a round fruit (possibly a pomegranate) near his chest. Mars was depicted as a warrior wearing a long, red attire, tight trousers, and a helmet with mail, his face pink, with red hair, a beard, and a moustache. He had four arms, held a severed head, a mace with a lion's head, a sword, and a lion-like creature[5]. *Kitāb al-Bulhān* (Bodleian Library, MS.Or.133), copied for Sultan Ahmad Jalayir of Baghdad (1382-1410), showed Saturn like an elderly Indian man with a white beard, a red conical hat, bare upper torso, and red trousers, holding a pickaxe, shovel, and sickle in his right hand. A Timurid manuscript of *ʿAjāʾib al-Makhlūqāt* (Shiraz, 1421; Topkapı Palace Museum, Ms. Revan 1660) showed slight variations: Mars, with four arms, wielded a sword, fire, a severed head, and a scorpion. One of the earliest preserved planetary representations appeared on the Vaso Vescovali, a 12th-century Iranian vessel, showing Saturn half-dressed and predominantly dark-skinned, in red trousers, and embodying an ancient Hindu deity, holding attributes like a pickaxe/shovel, a bowl, prayer beads, a sieve, a scorpion or mouse, and a fire or a

[1] The Dēnkard (Book IV), a ninth-century summary of Zoroastrian (embodying oral knowledge by contemporary priests, and including material dated to the history of Zoroastrianism).

[2] Nasr, *Islamic Science As Illustrated Study*, 11.

[3] Sara Kuehn, "The Eclipse Demons Rahu and Ketu in Islamic Astral Sciences", *In Umbra: Demonology as a Semiotic System*, № 5 (2016): 203-205.

[4] In 1030, Albaironi wrote an important book on India, with direct representations and critical commentary on Indian myths and sciences. Adalbert Gail, "Planets and Pseudoplanets in Indian Literature and Art with Special Reference to Nepal", *East and West*, Vol. 30, No. 1/4 (December 1980): 137.

[5] Anna Caiozzo, " La représentation d'al-Mirrîkh et d'al-ZuḺal, planètes maléfiques et apotropaia", *Annales islamologiques* 37 (2003): 25.

crown. These features recured in a Timurid cosmological drawing (Manchester, Ms.Ryl, Pers.37, Fig.16), two Turkmen cosmological manuscripts (Vienna, ÖNB, Codex. N.F.15517, Istanbul, Süleymaniye, MS. Fatih4171, Figs.17-18), and a cosmological work in St. Petersburg (MS. E7)[1].

The earliest mention of Indian contributions to Islamic astronomical sciences could be dated to the $8^{th}$ CE century, marked by the arrival of an Indian diplomatic embassy in Baghdad in 156 AH/772 CE, which featured an astronomer named Kankah, with experience in planetary movements and calculations based on a Sanskrit astronomical text referred to as Siddhanta, presumably linked to Brahmagupta's work. At the behest of the Abbasid Caliph al-Mansur, Al-Fazari and Ya'qub ibn Tariq undertook the translation of this significant work, resulting in the creation of the astronomical text referred to as "Sidhant," which subsequently became known as "al-Sind Hind"[2].

Indian astrology originated independently, without the influence of Babylonian traditions. The earliest mentions of astronomy in India could be found in Vedic manuscripts; however, during the early Common Era, it integrated Hellenistic astrology, which was shaped by Egyptian, Greek, and Babylonian traditions[3]-[4]. Astrology persisted in the Greco-Bactrian and Indo-Greek Kingdoms, which maintained direct interactions with India[5].

Planetary representations adopted Hellenistic features, with the portrayal of planetary gods conveyed to India via textual narratives that Indian artists reimagined, rather than through direct Greek representations. Nevertheless, the textual passages were not translated; instead, there were additions referencing Indian mythological figures and Hindu sacred traditions[6]. While the foundational ideas and visual representations of Indian planetary gods might be initially drawn from Hellenistic astronomy and Roman astrology, the artistic representations and narratives linked to these deities in India underwent swift localisation, wherein the iconography employed to portray planetary deities evolved from established models of ancient Indian deities[7].

The parallel belief systems of the Greeks and Babylonians emerged, linking Navagraha and the Hindu deities. Navagraha was derived from Sanskrit, with "nava" signifying "nine" and "graha" denoting "planet." The nine celestial entities, along with the conceptual figures of "Rahu and Ketu," were integral to many Hindu temples globally, which often featured a specific area dedicated to Navagraha. These planets included Surya (the Sun), Chandra (the Moon), Mangala (Mars), Budha (Mercury), Brihaspathi (Jupiter), Sukhra (Venus), Shani (Saturn), and the shadowy entities Rahu

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[1] Caiozzo, La représentation d'al-Mirrîkh et d'al-Zuὶal, 28.

[2] Glen van Brummelen,"The Travels of Astronomical Tables within Medieval Islam: A Summary", *Suhayl 1*3(2014):16.

[3] David Pingree, "Astronomy and Astrology in India and Iran", *Isis,* Vol. 54, No. 2 (Jun., 1963): 236.

[4] Jeffrey Kotyk, "Astrological Iconography of Planetary Deities in Tang China: Near Eastern and Indian Icons in Chinese Buddhism", *Journal of Chinese Buddhist Studies* (2017): 35.

[5] Grenet Frantz; Pinault Georges-Jean. Contacts des traditions astrologiques de l'Inde, 1063.

[6] Stephen Markel, Heavenly bodies and divine images: the origin and early development of representations of the nine planets. In *Southeast Conference of the Association for Asian Studies Annals*, Vol. 9, (1987): 1.

[7] Stephen Markel, The Genesis of the Indian Planetary Deities, *East and West*, Vol. 41, No. ¼, (December 1991): 184.

and Ketu. Several mythologists and ancient scholars argued that the Navagrahas were solely governed by the deity Shiva, referred to as Navagraheshwara, which motivated placing these celestial entities within the temples dedicated to Lord Shiva[1].

As Buddhism spread from India to China in the 1st and 2nd CE centuries, it brought the influence of Indian astrology, which Babylonian and Greek traditions had shaped[2]. A notable Chinese illustration was a panel from Dunhuang titled "Buddha Tejaprabha and the Five Planets(pl.26)," created by Zhang Huaixing (Du) in the 4th year of the Qing Dynasty (897). Situated on the southern wall of the corridor in Mogao Cave 61, it was referred to as "Buddha Tejaprabha and the Deities of Astronomy" by the Hong Kong Heritage Museum[3], depicting five human figures accompanied by animals encircling the radiant Buddha Tejaprabha and strikingly mirroring Islamic art elements[4]. In a manner akin to the significance of planetary iconography in India, it was likewise thought to ward off harm[5].(Pls. 6-9)

(Pl.26) Buddha Tejaprabha and the Five Planets ,Kotyk, *Buddhist astrology,Fig.1.1*

**Results:**

Personified representations of planets were influenced by previous nations, especially Harran, shaped by Babylonian astrology and Greek concepts, especially in Mesopotamia, which was ruled by Muslims and continued to adopt pagan beliefs, especially the seven wandering planets, circumventing claims to be dhimmi. Recent excavations have revealed some of these, such as the Temple of Sin with its remains of sculptures of some planetary personified representations. Many of its people worked in the Abbasid court. They became renowned in the Islamic scientific movement while maintaining their pagan beliefs, such as Thabit ibn Qurra and Ibn Ishaq al-Sabi.

[1] ShyamB.R. & P.S.Aithal, "Connecting Planetary Gods (Navagrahas) with Gods of Management (9 Ms)", *International Journal of Philosophy and Languages (IJPL)*, 2.1(2023): 2.

[2] Henrik H. Sørensen,19 Astrology And The Worship Of The Planets In Esoteric Buddhism Of The Tang, *Esoteric Buddhism and the Tantras in East Asia*. (Leiden: Brill, 2011), 230-244.231.

[3] Hernández, *Navagraha: Planetary Icons*, 28.

[4] Jeffrey Kotyk, *Astrological Iconography of Planetary Deities in Tang China*, 35

[5] Hernández, *Navagraha: Planetary Icons*, 26.

Personified representations in manuscript illustrations and Islamic artistic endeavours emerged from the confluence of Babylonian and Greek astrological traditions, particularly through the intermediary of the Harranian scholars, who were well-versed in Greek, Syriac, and Indian languages, played a pivotal role in the Abbasid translation movement, facilitating the transmission of these profound concepts, as manifested in the translated texts. Consequently, Abbasid translation was pivotal in the incorporation of planetary representations into Islamic manuscripts and artefacts.

Babylonian and Greek astrological and astronomical manuscripts greatly influenced those produced during the Islamic period. They viewed planets as celestial entities with terrestrial counterparts, linking them to deities endowed with distinct attributes. Studying such manuscripts had a profound impact on Muslim historians, leading to the emergence of personifications that illustrated the virtues and vices associated with each planet in their manuscripts. Consequently, these personifications fostered a widespread belief regarding the influence of each celestial body on human existence.

The belief in planetary influence for talismanic purposes persisted solely as a form of folk heritage in Persia and Mesopotamia, extending into Turkish territories, which historically engaged in planet worship and maintained such beliefs within their folk customs even after the advent of Islam. They were inscribed and represented in artistic creations and architectural designs for talismanic purposes, notwithstanding the restrictions imposed by the Islamic faith. For instance, the Seljuks offered artefacts adorned with representations of celestial bodies and zodiac signs, reflecting their profound fascination with astrology. Remarkably, the Turkish people exhibited a profound interest in ancient beliefs concerning planets and celestial bodies, which held significant value within their mythology.

The research paper demonstrated, through artistic illustrations, the amalgamation of Babylonian, Greek, and Indian influences within an artefact, resulting in celestial bodies that embody a synthesis of these diverse cultural elements.

Ancient civilisations, especially Babylonian and Harran, significantly shaped the symbolism of planets in Islamic art, creating local, personified planets with features of the ancient deities. However, they missed the pagan aspect and had astronomical and talismanic symbols.

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