

# Islamic Cosmologies in Art

## Introduction

In Antiquity and in the Middle Ages the universe was believed to be centred on a spherical and stationary Earth. The Sun, the Moon, the planets and the stellar sphere were believed to rotate around the Earth. The philosophical and astronomical arguments supporting this view were formulated by the Greek philosopher Aristotle of Stagira (384 – 322 BCE) and the Hellenistic astronomer Claudius Ptolemy of Alexandria (c. 100 – c. 180 CE). Through translations from Greek scientific works into Arabic the geocentric world system also became the basis of Islamic philosophy, astronomy and astrology. In this workshop we will study some cosmographical diagrams which were drawn from various Islamic sources.



Fig. 1. Seyyed Loqmān 'Ashūrī, *Zubdat al-Tawārīkh*.

## The Cosmos as Depicted in a Late 16<sup>th</sup>-Century Ottoman Miniature

The miniature shown in fig. 1 is from the *Zubdat al-Tawārīkh* ("The History of the World") of Seyyed Loqmān 'Ashūrī, a work dedicated to the Ottoman sultan Murad III and completed in 991 AH (1583 CE).<sup>1</sup> A larger image is given on a separate worksheet.

**Exercise:** Beginning in the centre and working your way outwards, carefully describe the contents of the various circles (do not forget the four corners) and identify the heavenly bodies and entities depicted.

<sup>1</sup>This manuscript (ms. T. 1973) is kept in the Turkish and Islamic Arts Museum in Istanbul. Two other copies are in the Chester Beatty Library, Dublin (ms. T. 414, dated 1573), and in the Topkapı Seray Museum Library (ms. H. 1321, dated 1586).



Fig. 2. The Horoscope of Iskandar Sūltān (London, Wellcome Library, ms. Or. 474).

## The Horoscope of Iskandar Sūltān

The magnificent two-page diagram shown in fig. 2 (a larger version is found on a separate sheet) depicts the birth horoscope of Jalāl al-Dīn Iskandar Sūltān ibn - 'Umar Shaykh (1384 – 1414), a grandson of Tīmūr-i Lang (1336 – 1405) who was known in the West as Tamerlane ("Timur the Lame"). Iskandar Sūltān ruled over Shīrāz (from 1409) and Iṣfahān (from 1413) until he was deposed and blinded on the orders of his uncle Shāh Rukh.

The horoscope figure is set for Monday 3 Rabī' -I 786 AH and was drawn up by Maḥmūd ibn Yaḥyā ibn al-Ḥasan ibn Muḥammad 'Imād al-Munajjim al-Kāshī, who may have been the grandfather of the celebrated Persian astronomer and mathematician Ghiyāth al-Dīn Jamshīd ibn Mas'ūd ibn Maḥmūd al-Kāshī (c. 1380–1429) who worked at the court of Ulugh Beg in Samarqand.

**Exercise:** Identify the planets and the zodiacal signs. From the computed positions of the celestial luminaries in the year 1384 CE, supplied separately, determine the date for which the horoscope diagram is correct.

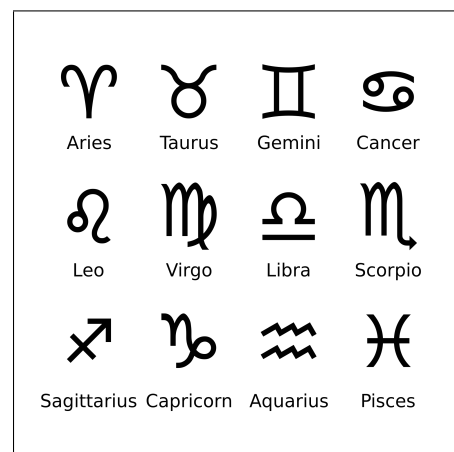


Fig. 3. Astrological symbols of the signs of the zodiac.

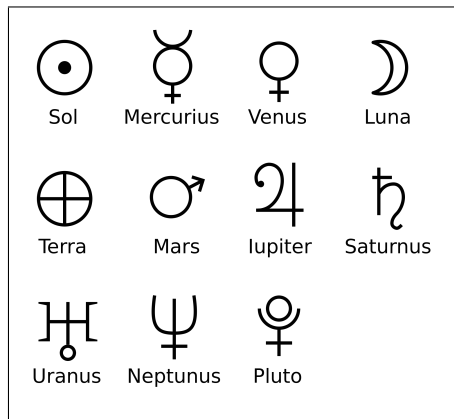


Fig. 4. Astrological symbols of the planets.

planet	moons	year
<b>Mars</b>	Phobos & Deimos	1877
<b>Jupiter</b>	Io, Europa, Ganymede & Callisto Amalthea (5 <sup>th</sup> moon)	1610 1892
<b>Saturn</b>	Hyperion (8 <sup>th</sup> moon) Phoebe (9 <sup>th</sup> moon)	1848 1899
<b>Uranus</b> (1781)	Ariel & Umbriel (3 <sup>rd</sup> & 4 <sup>th</sup> moon) Miranda (5 <sup>th</sup> moon)	1851 1948
<b>Neptune</b> (1846)	Triton (1 <sup>st</sup> moon) Nereid (2 <sup>nd</sup> moon)	1846 1949
<b>Pluto</b> (1930)	Charon (1 <sup>st</sup> moon)	1978

## The Cosmos as Depicted on a Persian Wall Cloth

Study the wall cloth made in Işfahān by Ḥusain Fakhārī (fig. 5) which is preserved in the collection of the Wereldmuseum Rotterdam. Note the differences with the cosmographical depictions in figs. 1 & 2.

**Exercise:** From the celestial bodies depicted on this wall cloth determine between which years it was probably made. Use the following table with the discovery years of the planets and their brightest moons.



Fig. 5. Persian wall cloth in the Wereldmuseum, Rotterdam.

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وَدَخِي غَيْرَ اِيْلِكَ دُوْدَتْ قَادِي وَاَرَدُوْهُ بَرِيْ مَغْرِبُهُ وَبَرِيْ مَشْرِقُهُ وَبَرِيْ جَا بِلَرُوْكَ اَخْرَجُوْهُ وَبَرِيْ خَارِصُكَ تَحْتَنُكَ وَبَرِيْ عَزَا اِيْلَهُ اَلَمْ يُوْحِيْطُ  
نَظْرًا يَدُوْبُ جِلْمُهُ خُلُوْقَاتُ اَيْ كُوْزَلَرِيْكَ اَوَكُنْدَه دَرُوْجُ بَرَكْمَسَه نَك دَرُوْجَن قَبْضُ اِيْلَهُ اَلَا اَجَلُ كَلُوْبُ وَعَرِيْ مَامُ اَوَلُوْبُ رَزَقِيْ اَخْرَاوُ لَمُجِيْهَه مَن نَمَلُكَ  
رُوْحَلَرِن صَاغُ اَلَيْلَه قَبْضُ اِيْدُوْبُ عَلِيْنَه رَفْعُ اِيْلَهُ وَكَافَرُوْكَ جَانَلَرِن صَوْلُ اِلَيْه قَبْضُ اِيْدُوْبُ سَجِيْنَه اِيْضَا اَلَيْلَهُ وَدَخِي اَنْسُ اِنْ مَالُكَ رَضِيَ اَللّٰهُ  
عَنْمَا سَنَدَ صَبِيْحُ اَيْلَهُ رَسُوْلُ حَضَرَتْ عَلَيْهِ السَّلَامُ دَن رَوَايَتُ اِيْدُوْبِيْ اَيْدِيْكَ اَدَمُ عَلَيْهِ الصَّلَاةُ وَالسَّلَامُ اَشْبَاوُ اَلَيْكَ كُوْكَدَرُ وَدَخِي خِيْلُ وَفَرَا اَتُوْكَوْكَدَرُ

صحة الافادك



اَقْرَبُ وَاَقْرَبُ اَعْلَمُ وَبَرِيْ كُوْزَلَرِيْكَ فَالْاَكْبَرُ وَرَقَالُ اَلْحَكْمَاءِ اَهْلُ رَصْدُ شُوْبِلَه زُيْمُ اَيْتَمَشَلَرِكِه اَشْبَاوُ اَلَيْكَ اَتُوْكَوْكَ فَالْاَكْبَرُ وَدَرَاوُ اَلَيْكَ فَالْاَكْبَرُ  
مَنْسُوْبُ دَرُ قَمَرِ سَعْدُ دَرُ طَبِيْعَتُكَ نَاكِ اَوَايْدُ رَا جِدُ سِرِّ وَتَرَدُّدُ كَيْفِيَّتُهُ دَشِي وَشَيْدُزُ وَلُوْنُ كُوْكَدَرُ اَيْتَمَشَلَرِكِه اَوَلُكَ قَمَرُ اَللّٰهُ اَرْضُكَ مَا اَيْتِيْ يُوْزُ  
يَكْرِيْ اَلْحَقِيْكَ دُوْرَتِيْ وَتَرَقُّوْ مِيْلَدُ وَبُوْ فَلَكَ اَلْكَلْبِيْ يُوْزَاوُنُ سَكْرُ نِيْكَ اَلْبَشَرُ اَلَّتِيْ مِيْلَدُ وَدَخِي بُوْ فَلَكَ جَرِيْ اَوُتُوْ طَقُوْزُ اَرْضُكَ جَرِيْ قَدَرُ  
وَرَبْعُ جَرِيْ قَدَرُ وَدَخِي اَيْدِيْ لَرُوْكَ قَمَرُكَ اَعْلَاهُ مَاسَدُ رَفَاكُ عَطَارِدَه وَاَدْنَاهُ مَاسَدُ رَكْرَكِه اَنَارُ وَبُوْ فَلَكَ دُوْرِيْ مَامُ اَوَلُوْرُ كَرِيْ يَكُوْكَدَرُ



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عطارد

اجرام که ساکنان این ایوانند

اسباب بر یک خم سردمند اند

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هان تا سر رشته خردم

مشخ

کامان اندر سرگردانند

مشتری

این چرخ و فلک که مادر او کردیم

زحل

فانوس خیال از او مثالی دایم

اورانوس

خورشید چراغ داند و عالم فانی

ما چون صوریم و اندر او حیرانیم

نبوت

اصفهان ساختن چین نقاری