

Zodiac constellations 4 – Zodiac: astrology and astronomy



Babylonian astrology

In the 4th century BCE, Babylonian catalogues entered Greek astronomy. Chaldea became so strongly identified with astrology that 'Chaldean wisdom' became synonymous for Greeks and Romans with divination through the planets and stars. Horoscopic astrology first appeared in Ptolemaic Egypt. Ptolemy was the main Greek whose work laid the foundations for Western astrological tradition.

Planets, houses, and signs of the zodiac were rationalised and their function set down in a way little changed to present day.

Until the 17th century, astrology was considered a scholarly tradition and helped drive the development of astronomy. It was commonly accepted in political and cultural circles and many astronomers were employed as astrologers for their noble or royal patrons. Renaissance court astrologers would complement their use of horoscopes with astronomical observations and discoveries. Many now credited with having overturned the old astrological order eg Brahe, Galileo, Kepler were themselves practising astrologers.

Astrology was also used in other traditional studies including alchemy, meteorology and medicine. In medieval Europe, university education was divided into seven distinct areas, each represented by a particular planet and known as the seven liberal arts. Dante linked these arts to the planets. As the arts were seen as operating in ascending order, so were the planets in decreasing order of planetary speed. Grammar was assigned to the Moon, the quickest moving celestial body. Dialectic was assigned to Mercury, rhetoric to Venus, music to the Sun, arithmetic to Mars, geometry to Jupiter and astrology/astronomy to slowest moving Saturn.



By the end of the 17th century, scientific advances led the telescope and emerging astronomical theories and concepts eg the heliocentric model undermined the theoretical basis of astrology. Astrology lost its academic standing and became regarded as a pseudoscience.

Astrology is no longer accepted as a science

In both astronomy and astrology, although it is a star, the Sun has no constellation. So, a specific system has been devised to describe the Sun's position in relation to other, much more distant, stars. Over the course of a year, as Earth orbits the Sun, the Sun appears to trace a circular path i.e., the ecliptic. At the same time, the position of the other stars changes as Earth's position, relative to the Sun, changes. This means that, relative to the other stars, the Sun appears to move in the sky through the year, apparently moving through the zodiac constellations. This is why the Sun is described as 'passing through' a particular constellation at certain times of year eg the Sun passes through Sagittarius from late December to late January.

The rest of this series will explore the characteristics and features of the thirteen constellations through which the ecliptic passes. It will start with Sagittarius, the constellation through which the Sun passes at the start of the calendar year.

Sources: Ridpath, I (Ed) 2012 Oxford dictionary of astronomy Oxford, OUP, Ridpath, I (Ed) 2006 Astronomy London, Dorling Kindersley, curious.astro.cornell.edu, en.wikipedia.org, lpi.usra.edu, universetoday.com