

The Signs of the Zodiac: Astronomy vs. Astrology



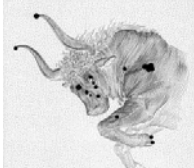

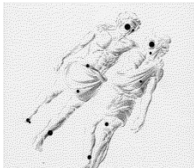
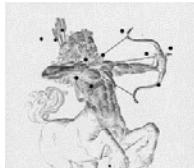
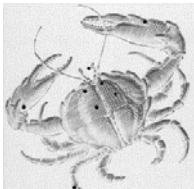
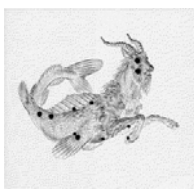
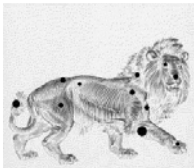
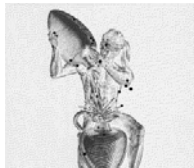

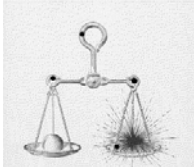
About five hundred years ago, astronomy and astrology were intricately connected. One of the greatest observers of the 16th century (and perhaps the greatest naked-eye observer of all time), Tycho Brahe (1546-1601), had to initially study in secret as his family (of Danish nobility) discouraged his interest in astronomy. Tycho soon became famous, however, when he observed a “new star,” which we now know was a supernova, and proved that it was much farther than the Moon. This and other precise work caught the attention of the King of Denmark who then funded a sophisticated observatory, complete with an entire island, just for Tycho. Tycho made about 30 years of observations, noting over and over again the positions of planets and stars. Tycho was paid to cast horoscopes for the king in order to give the king an advantage over his adversaries.

The original zodiac had 12 constellations, equally spaced along the ecliptic—the path of the Sun during the year as seen against the background stars. The idea was that a person’s life could be foretold by the position of the Sun at his or her birth. Someone, however, forgot to tell astrologers about precession. Because the Earth’s axis “wobbles” as the Earth spins, the position of the Sun-Earth-stars changes slowly over time. The sun signs used today to cast horoscopes were correct 2000 years ago but no longer refer correctly to the motion of the Sun against the starry background. Hence, almost every person’s “birth sign” is wrong. The Sun has shifted position, having moved roughly one sign “backwards.” Astronomers map the sky much as a cartographer maps the Earth, breaking it into sections. Every star belongs to a constellation. The Sun passes through 13 constellations as it moves along the ecliptic, and so astronomers have 13 constellations that represent the zodiac.

About 400 years ago, astrology and astronomy parted ways forever. Tycho Brahe’s exacting measurements eventually led to the important work by Johannes Kepler, Galileo Galilei, and Sir Isaac Newton. Astrology is stuck in the mystical and the magical; it can make up new rules as the need arises. Astronomy has moved on to become an ever-changing science. As a physical science, astronomy works with observations and testable theories, applying the physics we know on Earth to objects in the Universe. Astronomers set about to learn how our cosmos works, where everything all came from, where it is all going. Our imagination leads us on fascinating journeys of discoveries far exceeding anything imagined by astrologers of old.

Following are your “astronomical” signs of the zodiac. Are you surprised? Find out exactly what “precession” is. You will also learn that because of precession, the North Star, Polaris, was not at the north celestial pole in the past (the star Thuban of the constellation Draco was close around 2000 years ago), and will not be in the future, as the north celestial pole slowly arcs towards Vega.

(We’ve lost the reference for the web source of the above information. Our apologies!)

<p>Aries April 19 – May 13 (25 days)</p>		<p>Scorpius November 23 – November 29 (7 days)</p>	
<p>Taurus May 14 – June 19 (37 days)</p>		<p>Ophiuchus November 30 - December 17 (18 days)</p>	
<p>Gemini June 20 – July 20 (31 days)</p>		<p>Sagittarius December 18 – January 18 (32 days)</p>	
<p>Cancer July 21 – August 9 (20 days)</p>		<p>Capricornus January 19 – February 15 (28 days)</p>	
<p>Leo August 10 – September 15 (37 days)</p>		<p>Aquarius February 16 – March 11 (24 days)</p>	
<p>Virgo September 16 – October 30 (45 days)</p>			
<p>Libra October 31 – November 22 (23 days)</p>		<p>Pisces March 12 – April 18 (38 days)</p>	