

Astronomia and Astrologia

For many centuries the terms “astronomy” and “astrology”, or more precisely analogous terms in various languages, were often used as synonyms. Frederick Cramer discusses this situation in his *Astrology in Roman Law and Politics* (1954). Words we now might translate as “astronomy” may have originally referred merely to the connection of meteorological phenomena with the risings and settings of certain stars and constellations. An astronomer, in this sense, was someone who assigned individual stars or whole constellations roles in prognosticating weather, on the basis of accumulated observations.

By the 5th century B.C. a more extended meaning had been given to the term. Socrates, according to Plato in his dialogue *Theaetetus*, described *astronomia* as the discipline devoted to investigating the movements of the stars, including the sun and moon, and the relations of their speeds. This term didn't find favor with the next generation, and Aristotle customarily used the term *astrologia* where Plato and others had used *astronomia*. Aristotle's influence lent a long life span to this use of *astrologia*.

The ancient development of astrology as understood in present-day senses of the word “astrology” led to a separate term for astronomy in our sense of the word “astronomy”: the term was *mathematike*. This term in turn was in time usurped to apply to mathematics in our sense of the word.

Near the end of antiquity, *astronomia* came to denote, as “astronomy” still does, people's scientific endeavors to find rational explanations for the nature and motions of the stars. But not until the 17th century of our era did astronomy come to be used by some to definitely exclude astrology.

Isidore of Seville (c. 560-636) distinguished in his *Etymologiae* between natural and superstitious astrology. The former, he says, is just another name for astronomy, while the latter "is that science which is practiced by the *mathematici*, who read prophecies in the heavens, and who place the twelve constellations as rulers over the members of man's body and soul, and who predict the nativities and dispositions of men by the courses of the stars." (Quoted by Theodore Otto Wedel in *The Mediaeval Attitude toward Astrology, Particularly in England*, 1920.)

In the *Etymologiae*, the *mathematici* and *genethliaci* (casters of natal horoscopes) appear in company with many other representatives of magic. In her *History, Prophecy, and the Stars* (1995). Laura Smoller reports that Isidore distinguished between *astronomia* which deals with the motions of the heavens, and *astrologia* which deals with their effects. She goes on to say: "The neat distinction between the two words did not persist, however, and the terms were blurred, jumbled, and sometimes reversed throughout the Middle Ages. Pierre d'Ailly, for example, fairly consistently used *astronomia* for "astrology" and *astrologia* for "astronomy" ". Presumably she used the quotation marks to indicate she was using the terms "astrology" and "astronomy" in present-day senses.

In *A History of Magic and Experimental Science*, 1923-1958, v. 2, Lynn Thorndike writes that John of Salisbury (1120?-1180) uses *magica*, *mathematica* and *maleficium* almost synonymously. Thorndike doesn't translate, but they can be translated "magic", "mathematics" and "sorcery". John explains that the word *mathesis*, when it has a short "e", denotes learning in general, but when it has a long "e", it signifies the "figments of divination, whose varieties are many and diverse".



Wedel remarks: "Although John of Salisbury was unusually sane and enlightened in the matter of medieval superstitions, he subscribed fully to the patristic doctrine of demonology. The Church Fathers, he says, rightly denounced all forms of magic – *species mathematicae* – inasmuch as all of these pestiferous arts spring from an illicit pact with the devil. Thorndike says Albertus Magnus (Albert the Great, 1193-1280) distinguished two kinds of *mathematica*, one an abstract science and the other divination by the stars, which may be either superstitious or scientific.

In *Abu Ma'shar and Latin Aristotelianism in the Twelfth Century, The Recovery of Aristotle's Natural Philosophy through Arabic Astrology* (1962) Richard Lemay says that John of Salisbury also distinguished between the *mathematicus*, concerned with *mathesis*, and the *physicus*, concerned with the philosophy of nature. The former is said to study abstractions extracted from nature, while the latter studies processes concretely embedded in nature. The *mathematici* were therefore concerned with stable, unchanging objects, while the *physici* depended on evidence of the senses. Both, however, tried to discover the courses of nature, and the extent of their regularity or irregularity. In John's view, *physica* had absorbed much of what had long been considered as the proper object of *mathematica*. In particular, foreknowledge of the future, formerly the concern of the *mathematicus*, he considered to have become a domain of the *physicus*. In making this distinction between mathematics and physics, John of Salisbury was embarrassed by ancient strictures placed by the Church Fathers, because he said much that had been linked with foreknowledge of the future had become the proper concern of a *physicus*.

Lemay says Michael Scot (early 13th century A.D.) often used *astronomia* to denote what today would usually be called astrology and he distinguished between *mathesis*, or knowledge, and *masesis* (without an "h"), or divination, and between *mathematica* (with an "h"), which could be taught freely and publicly, and *matematica* (without an "h"), which was forbidden to Christians. Thorndike states that by the time of Peter of Abano (1250-1318?), the words *astronomia* and *astrologia* were beginning to be used in about their present meanings. This may be compared with the statement of Frederick Cramer, referred to above, that this didn't happen until Isaac Newton's time. No doubt it was a matter of who was using the terms, as well as when they were used. In any case, Peter of Abano himself was seeking to establish, against various theologians and scholastics who had distinguished between the two, that they were actually the same (Graziella Vescovini, "Peter of Abano and Astrology", in *Astrology, Science and Astrology, Historical Essays*, 1987)