

Astrological Influence in the *Arbor sapientiae*

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At first glance the diagram of the *Arbor sapientiae* or Tree of Wisdom in Beinecke MS 416 may seem easily intelligible. One side depicts the seven ages of man – infant, boy, adolescent, youth, man, old man, and elderly man. The other features the seven liberal arts – grammar, logic, rhetoric, music, arithmetic, and astrology. The point seems to be that with age comes wisdom. Perhaps certain disciplines may be better suited to different age groups. Or, if we are not inclined to make direct correspondence between the two sides, it could be supposed simply that both aging and learning are processes with distinct phases and are grouped together because of their mutual association with the number seven. Indeed, Elizabeth Sears makes this very assumption in her book, *The Ages of Man*.¹

A closer look into both the organization of the liberal arts within the diagram and the origins of the notion of the seven ages of man, however, reveals that there is very likely more at work than simply numerical correspondence. That the diagram has astrology at the head of the liberal arts is particularly significant. It is strange, first of all, because logic was typically acknowledged as the most prestigious academic discipline among the arts. Second, by all accounts the name of the field of study should have been astronomy, not astrology.

The thirteenth century was a period of dramatic change in Western learning. The Latin translations of ancient and Arabic works by Aristotle, Ptolemy, Avicenna, and

¹ Elizabeth Sears, *The Ages of Man*, (Princeton, 1986), 141.

Albumasar, as well as the emergence of universities created a climate in which the traditional classifications of knowledge were open to challenge. The value of astrology was much discussed. While many were opposed to it, Roger Bacon, among others,² argued fiercely for the inclusion and acceptance of astrology as a science which enlightens mankind in our study of both the world and the divine. It is proposed in the following essay that the atypical prominence of astrology in the ordering of the liberal arts in the Beinecke diagram is the result of a revival of astrological study in the central Middle Ages, most clearly represented in the work of Roger Bacon.

The *Arbor sapientiae* diagram consists of four basic parts: the right and left sides of the tree, the top, and the bottom. Beginning at the base and working our way up, the tree is planted in a vase, the lip of which is labeled “Wisdom.” The middle of the vase is inscribed with the words, “Thus I will, Thus I decree, Thus I do, by my right,” which may indicate God as the speaker, or may in fact be the words of wisdom personified. Spanning the space on either side of the vase is a sentence which reads: “Wisdom presents a lifetime in seven parts, demonstrating the arts which a prudent man ought to seek.” This refers to the organizing principle of the diagram itself, with life divided into seven ages on one side, and the seven liberal arts on the other.

On the left side of the illustration, the seven ages of man are presented. There are eight branches, however, and the first one is titled “Nature,” referring to the natural progression of life and contains the inscription: “All nature through me receives its laws.” This sentence seems to be presented by Wisdom – either divine, as in the creation of the

² Compare Thomas Aquinas, *Summa contra gentiles* 3.1.

laws themselves, or in man, regarding the perception of these laws. The first age is that of the infant, whose scroll reads, “I don’t speak, and I lie before the immovable elements of nature.” Next is the boy, for whom “destiny is limpid,” and “more pure than the stream of nature.” Then comes the adolescent, who acknowledges that, “forming my values, the flower exudes its odors on me.” This is followed by the youth, whose caption declares that “destiny, ignorant of sorrow, emerges in the fruit of youth.” The caption for the age of man admonishes the reader to, “protect men and associate with men of ability.” The old man, reflecting on his age, says that to be aged means “to have full awareness.” Finally, the man on the verge of death is said by the caption to be “placed in doubt.”

The right side of the diagram, which presents the liberal arts, is laid out in a similar pattern. The arts are grouped under the heading “Philosophy,” which proceeds from either divine or human wisdom. The arts themselves follow, personified in the accompanying statements, with the exceptions of “Grammar” and “Rhetoric,” whose captions are spoken by the person studying those arts. So the first art, grammar, is accompanied by the testimony that “with care for grammar, I speak correctly, without artifice.” Next, logic is personified, warning, “without me, learned men cultivate my sisters in vain.” Then the caption for rhetoric informs the student that this art is the method for him to “speak with refinement.” Music reminds the reader that “vocal melodies find their order through me,” followed by geometry which announces that it knows “the measure of things and their form.” The penultimate art, arithmetic, says, “I explain through number what is the proportion of things.” Finally, astrology proclaims: “I possess for myself alone the stars and the various paths of the heavens.”

The last part of the diagram, the top of the tree, is left empty but is labeled “Holy Trinity.” A phrase, similar to the one on the vase at the bottom, spans the top: “I arrange all things, I create all things, and I provide all things.”

One of the most immediately striking aspects of the *Arbor* is its emphasis on the number seven. Attributing significance to numerical accord can be traced back to the Pythagoreans, who believed that the true nature of things is constituted in their number.³ The Pythagoreans considered the soul to be a microcosm of the universe, and that man and the cosmos could be understood through the mathematical harmonies common to them both.⁴ Although not directly under the sway of the Pythagoreans, the creator of our diagram shares the belief that numbers underlay the course of events in the person and the world. By linking the ages of man with the liberal arts he also showed his agreement with the ancient notion that numerical symmetry linked elements that seemed outwardly unrelated.

Also important to the creator of the *Arbor* was the Ptolemaic vision of celestial influence on human activity. According to the *Tetrabiblos*, rediscovered by the West in the twelfth century, power is radiated from a region called the ether, causing the sublunar elements as well as the plants and animals to change.⁵ In the view of the *Tetrabiblos* author, the Sun, moon, planets, and stars exert a force over the world, and most importantly, over man.

³ D.L. Wagner, *The Seven Liberal Arts in the Middle Ages* (Bloomington, 1986), 19.

⁴ Wagner, *Seven Liberal Arts*, 3.

⁵ North, *Stars, Minds, and Fate: Essays in Ancient and Medieval Cosmology* (1989), 248.

In the Ptolemaic system “the attributes of each age accord with the nature of its ruling planet.”⁶ The moist and unstable moon rules over infancy. Mercury influences childhood as it “works upon the rational soul, implanting the seeds of learning.”⁷ In adolescence, Venus takes the reigns and instills passion and incontinence. The Sun implants self-restraint and the beginnings of a yearning for reputation in the youth, while Mars introduces “a sense of passing prime, misery and anxiety and an urge to noteworthy achievement” in the man.⁸ In the old, Jupiter provides rest from toil, dignity, and discretion, and Saturn both cools and slows the dying, instilling weakness and discontent.⁹

With these descriptions in mind, it seems as if there may in fact be some horizontal correspondence between the ages and the arts in the *Arbor sapientiae*.¹⁰ Mercury’s effect on the rational soul corresponds with logic, which if learned in boyhood, reveals the proper use of the other arts and opens possibilities in the boy’s destiny, as the diagram indicates. The passionate nature of Venus in adolescence is linked with the study of rhetoric, considered to be a useful but ultimately vain art, the influence of which should resemble a flower as it only “exudes its odors” on the formation of values in the adolescent. The Sun instilling self-control and sobriety in youth, when “destiny, ignorant of sorrow, emerges,” is across from music, with its rigid mathematical rules through

⁶ Sears, *Ages*, 49.

⁷ Sears, *Ages*, 49.

⁸ Sears, *Ages*, 49.

⁹ Sears, *Ages*, 49.

¹⁰ While these connections are necessarily derived from speculation, there can be little doubt that *some* correlation is intended. What follows is merely an attempt at inferring the nature of these relations.

which “the modulation of voices finds its place.” The realization of mortality and the sense of urgency it adds to man’s drive for accomplishment that Mars causes in man is echoed in man’s obligations to “protect men and associate with men of ability,” aided by geometry’s knowledge of “the measure of things and their form.” And just as respite, dignity and discretion from Jupiter influence the old man, so the diagram says to be old is “to have full awareness,” which is associated with arithmetic’s ability to explain “the proportion of things” in the terrestrial realm. Yet the relation between the last two, the elderly and astrology, is more difficult to ascertain. While “the elderly man is placed in doubt” as Saturn instills weakness and discontent, astrology alone is said to possess “the stars and the various paths of the heavens.” The most plausible relation would seem to be that the increasingly bleak outlook of the elderly might be assuaged by the knowledge of astrology, the most heavenly of the liberal arts.

Not only does Ptolemaic astrology stand in the background of the *Arbor sapientiae*, but so do the philosophical reflections of Plato. He argued that being is inherently intelligible, that this truth is arrived at by means of reason, and that there are two realms: that of intelligible, eternal, and constant being (the forms), and that of becoming (this world), which was appreciated through the senses. Plato’s metaphysics, particularly as they were communicated by Augustine, enabled medieval Christians to accommodate the study of the world (and the cosmos) with their belief in the eternal realm of God. In the Christian Platonic framework, study of natural phenomena and the maintenance of religious faith were complementary. This acceptance is expressed in the curriculum of thirteenth-century universities, which simultaneously embraced both

natural philosophy and theology. It is also deeply engrained in the *Arbor*, which not only accords particular value to astrological study, but even sees it as bringing one closer to understanding God.

The organization of knowledge within the university owes much to the rediscovery of Aristotle. Starting in the thirteenth-century universities the classification of knowledge “became more rigorous, systematic and comprehensive.”¹¹ Our entire diagram exemplifies this tendency by presenting a hierarchal organization of the liberal arts that corresponds to the natural progression of human life.

Aristotelian natural philosophy also underlies the ideas of creation and destruction of matter held by the creator of the *Arbor*. Aristotle asserted in the *Physics* that motion was the essential source of change and generation. In his *De generatione et corruptione*, Aristotle begins the treatment of his principle of effective causation by explaining how the Sun generates changes on Earth. To account for growth and decay, creation and destruction, Aristotle posited the idea of the Sun’s elliptical motion around the Earth, which “implies a certain ‘advancing and retreating’.”¹² Our diagram shows the influence of Aristotelian thought, illustrating the advancing and retreating in man’s life as he gains and loses strength in the course of the seven ages. Similarly, the parallel arrangement shows how knowledge can advance while life, in essence, retreats.

Aristotle’s classification schemes as well as his scientific speculation may well have been considered by the creator of our diagram. But, more important to him was

¹¹ See Elspeth Whitney, “Paradise Restored. The Mechanical Arts from Antiquity through the Thirteenth Century,” *Transactions of the American Philosophical Society* 80 (1990), 1-169.

¹² J.D. North, “Medieval Concepts of Celestial Influence: A Survey,” in *Astrology, Science and Society: Historical Essays*, ed. Patrick Curry (Suffolk, 1987), 5-18.

Aristotle's commitment to the study of nature as a philosophical tool. The belief that science could be used to unlock philosophical, indeed theological, truths was revolutionary to Latin scholars in the Middle Ages. It challenged the traditional notion that all knowledge should be subordinated to the discipline of theology.¹³

The idea that natural philosophy is a branch of wisdom useful in theological investigation as well as the belief that astrology is the most important of the liberal arts are expressed by the thirteenth-century scholar Roger Bacon.¹⁴ In 1266, Pope Clement IV ordered Bacon to give a report on the status of philosophy within theology, and more specifically, about the academic situation at the University of Paris and the "wholesale warfare about Aristotle in the Arts Faculty."¹⁵ Bacon's answer was his *Opus maius*, in which he not only argues that the Arabic interpretations of Aristotle by Avicenna and Averroes should be studied by Christian scholars at the University, but furthermore, that Aristotle and astronomy (which included astrology), along with the other sciences, could be incorporated in creating a new theology.¹⁶

Bacon divides astronomy into three parts: the first concerns the mathematical principles regarding theories of celestial motions; the second deals with the uses of astronomical instruments and tables; the third is focused on the natural powers of the celestial bodies and the influence they each have on Earth.¹⁷ Whereas the first two parts'

¹³ Elspeth Whitney, "Paradise Restored," 111.

¹⁴ Jeremiah Hackett, "Roger Bacon on Astronomy-Astrology," in *Roger Bacon and the Sciences* (New York, 1997), 175-198. See also Whitney, "Paradise Restored," 126.

¹⁵ Hackett, "Roger Bacon: His Life, Career and Works," in *Roger Bacon and the Sciences*, 9-24.

¹⁶ Hackett, "Life, Career and Works," 18.

¹⁷ Hackett, "Astronomy-Astrology," 179.

importance for Christianity, argued Bacon, in matters such as determining the actual date of Christ's birth was relatively accepted by his contemporaries, it was the significance of the third part, so-called judicial astronomy or *astrologia*, which was contentious.

In opposition to those Church fathers who had painted astrology as a form of magic that claimed to possess infallible knowledge regarding the most specific of aspects here on Earth, Bacon argued that while one *can* make predictions about people's behavior and disposition from the celestial bodies' influence on humans, these predictions can *only* be general or universal in nature.¹⁸ He is attempting to affirm an understanding of the laws of nature as rules which only experimentation and observation can determine, while leaving room for the influence of both the will of God and the will of man. Describing the proper methodology for such scientists/natural philosophers, he wrote:

When they foresee the possibility of anything contingent about to happen in natural or voluntary events, they do not say that it will happen by necessity, but that it may happen, and that it will happen in so far as it is according to the *power of its causes*, and that it will happen in virtue of these causes unless God changes the *Ordained Law of Nature and of the Will*.¹⁹

This idea that there are observable and discernible truths present in the cause and effect relationship of material bodies in world and universe which aid in the pursuit of divine knowledge is also present in our own *Arbor sapientiae*. For the diagram does not only suggest that knowledge of the divine comes through both the natural process of aging and the process of proper education in the liberal arts. It further asserts that astrology, the

¹⁸ Hackett, "Astronomy-Astrology," 183.

¹⁹ Quoted in Hackett, "Astronomy-Astrology," 186.

study of the planets themselves, their motion, and their influence on man and the earth around him, lays the groundwork for understanding God and the Holy Trinity.

It should not be surprising that the *Arbor sapientiae* was used as an instructive and moralizing tool, as it embodied the Christianized amalgamation of so many different ancient schools of thought. While it directly presents the two modes of approaching wisdom in aging and education, it implicitly offers those of Pythagoras and Plato, and more importantly, of Ptolemy, Aristotle, and their Christian synthesis presented by Roger Bacon. In fact, the same idea behind the diagram's emphasis on the importance of astrology is likely to have influenced its very purpose of visual instruction – namely, the idea that truth is discernible through our senses, and most importantly, through vision. As Aristotle wrote,

All men by nature desire to know. An indication of this is the delight we take in our senses...and above all others the sense of sight... [which more than the other senses] makes us know and brings to light many differences between things.²⁰

In his *Perspectiva*, Roger Bacon takes this idea and baptizes it. Beyond material truth itself, there is divine truth. In his own words:

[The science of vision has] inexpressible utility with respect to divine wisdom. For in divine scripture, nothing is dealt with as frequently as matters pertaining to the eye and vision...and therefore nothing is as essential to [a grasp of] the literal and spiritual sense than the certitude supplied by this science.²¹

²⁰ Aristotle, *Metaphysics*, 1.1, trans W.D. Ross, ed. Jonathan Barnes, in *The Complete Works of Aristotle*, vol. 2 (Princeton, 1984), 1552.

²¹ Roger Bacon, *Perspectiva*, Part 3, distinction 3, chapter 1, in *Roger Bacon and the Origins of Perspectiva in the Middle Ages*, ed. and trans. David C. Linberg, (Oxford, 1996), 320-2.

Just as man can learn the nature of divine truths through the use of vision in astronomy-astrology, so too can he determine the necessary means of such learning by applying his vision to diagrams such as the *Arbor sapientiae*.

The time period during which the *Arbor Sapientiae* was produced was one of increased awareness of celestial science and its classical influences, which was due to the recent rise of universities, the newly available translations of classical texts by Aristotle and others, and theologian-natural philosophers such as Roger Bacon.²² In emphasizing astrology's superiority in the liberal arts alongside the seven ages of man, the creator of the *Arbor* may have been consciously supporting Roger Bacon's assertions, or he may have done so unwittingly. Whether intentional or not, the various ideas embodied in the diagram enlighten our understanding of the nature of late thirteenth-century thought. In the eyes of the creator of the *Arbor sapientiae*, astrology was the greatest of the liberal arts, and the one with the most bearing on man's understanding of the Holy Trinity. In the diagram, the large frond at the peak of the tree devoted to this mystery is starkly devoid of any illustration. The idea would seem to be that, while God is unknowable, the universe he manifests is very knowable indeed. Through knowledge of the world and the surrounding cosmos one comes closer to learning the truth of the divine nature.

²² Edward Grant, *Foundations of Modern Science in the Middle Ages: Their Religious, Institutional, and Intellectual Contexts* (Cambridge, 1996), 176.