

Balbillus and the Method of *aphesis*

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MORE THAN half a century ago, an annotated collection of early Greek horoscopes was published by O. Neugebauer and H. B. Van Hoesen, containing much valuable material for the study of ancient astrology.¹ Perhaps inevitably, however, certain aspects of astrological procedure were imperfectly understood by the two pioneers. I propose in this article to examine one such misconstrued topic, namely, the determination of a subject's length of life by the method known as ἄφεσις, particularly as evinced in the two earliest literary horoscopes discussed by Neugebauer and Van Hoesen, both excerpted from the works of Balbillus (d. ca. 79 CE).

The two systems of direction

ἄφεσις, “sending out, release,” was one of the most prominent prognostic methods of classical Greek astrology, subsequently known to medieval Perso-Arabic astrologers as *at-tasyīr* and to their Latin translators as *athazir* or *directio*.² As the method had its foundation in the apparent diurnal rotation of the celestial sphere, sometimes known as the “primary motion” of the heavenly bodies (as opposed to their proper or “secondary” motion along the ecliptic), it has been known since early modern times as *primary direction*.³ In what follows, I shall

¹ O. Neugebauer and H. B. Van Hoesen, *Greek Horoscopes* (Philadelphia 1959).

² The first scholarly treatment of the subject of ἄφεσις, unfortunately more notable for its sarcasm than for its illuminating properties, is found in A. Bouché-Leclercq, *L'astrologie grecque* (Paris 1899) 411–421.

³ This terminology derives from Placido de Titi (Placidus), who wanted to

prefer “direction” over other translations in current academic use, such as “prorogation” or “progression.”

Historically, direction based on diurnal motion has taken two main forms. The simpler of these, calculated entirely by oblique ascension, almost certainly began as a reckoning of ecliptical degrees rising over the eastern horizon. Such figures were easily, if not always very correctly, approximated using tables of the times required for each of the twelve zodiacal signs to rise at a given clime. Rising times were expressed in equatorial degrees, each degree symbolically corresponding to one year in the life of the subject of the nativity. These calculations assumed each sign to rise at a uniform speed, which would then increase or decrease abruptly as the next sign began to rise. In reality, of course, such is not the case; but despite the crudeness of the calculations, the continuous passing of the degrees of the ecliptic over the horizon constitutes an actual astronomical phenomenon.

Soon, however, astrologers—on average perhaps no more astronomically astute in the early centuries of the Common Era than at present—began using rising times to convert the distance between any two points in a nativity into time. The approximate number of equatorial degrees rising with each zodiacal sign was treated as a symbolic number of years associated with that sign, irrespective of whether or not it was rising in the horoscope under consideration. As any given part of the ecliptic will rise, set, culminate, or cross some intermediate point in different amounts of time, such a procedure no longer corresponded to astronomical reality. Instances of this simplistic procedure are found in several authors of the late classical period, such as Vettius Valens (120–ca. 175) and Paul of Alexandria (fl. 378).⁴

distinguish the traditional *directiones primariae* from his newly invented *directiones secundariae*: Placidus de Titus, *Physiomatica, sive Coelestis Philosophia* (Milan 1675) 239 ff.

⁴ For examples see Vett. Val. 3.3 (128–132 Pingree; transl. E. Knobloch and O. Schönberger, *Vettius Valens: Blütensträuße* [St. Katharinen 2004] 128–

Against this method stands the second, more sophisticated directional system described by Claudius Ptolemy (ca. 100–ca. 178) in his *Apotelesmatics*, better known as *Tetrabiblos*. The time of a direction, Ptolemy wrote, should not “be taken simply or off-hand, in accordance with the usual traditions”—that is, by oblique ascension, or the rising times of the signs—unless the direction is actually made to the eastern horizon, or to a planet situated on it.⁵ If a direction is made to the meridian or to a planet on it, the time should be found by degrees of right ascension; and if to some place between the horizon and meridian, an intermediate method should be used: “For a place is similar and the same if it has the same position in the same direction with reference both to the horizon and to the meridian.”⁶ In this latter method, directions were performed by proportional distances, one planet or ecliptical degree being carried forward by the apparent motion of the celestial sphere until it reached a point between horizon and meridian corresponding to the position held at birth by another planet or ecliptical degree. While Ptolemy is our earliest source for this procedure, he does not claim to have invented it.

Both methods of direction survived well into the Middle Ages, the more complex system gradually gaining ground with the increasing mathematical proficiency of Arabic authors. Al-Qabīṣī ‘Abd al-‘Azīz (better known as Alcabitius or Abdilaziz, with variants; d. 967) gives a detailed description of the Ptolemaic method in his *Kitāb al-mudkhal ilā šinā‘at aḥkām an-nujūm* (“Introduction to the art of judgements of the stars”), which was to become a standard work of reference for many

132) and Paul. Alex. 34 (90–91 Boer; transl. D. G. Greenbaum, *Late Classical Astrology* [Reston 2001] 70–72). Paul’s text begins with the assertion that he has revised an earlier work to include the “more useful” directional method of Ptolemy discussed below; but the method he actually puts forth is the common one rejected by Ptolemy.

⁵ Ptol. *Tetr.* 3.11.15 (213 Hübner; transl. F. E. Robbins, *Ptolemy: Tetrabiblos* [Cambridge (Mass.) 1940] 287).

⁶ *Tetr.* 3.11.18 (214 Hübner, 291 Robbins).

centuries.⁷ He makes no mention of directions by mere rising times, nor does the Persian polymath al-Bīrūnī (973–1048), who calls the calculation of directions to places not on the horizon or meridian “a long and difficult business.”⁸ The simpler method was, however, still sufficiently well-remembered to be an embarrassment to Guido Bonatti (ca. 1207–ca. 1296), who in his voluminous *Liber Astronomiae* makes a half-hearted attempt to reconcile the two:⁹

Indeed ‘Umar said that Ptolemy worked by another method [than the one based on rising times], but, however, it was not contrary to this, even though it seemed different from it. Perhaps it seemed more difficult to some.

The two methods are in fact irreconcilable; and as we have seen, Ptolemy had rejected the method of rising times outright. It is true, however, that Ptolemy’s method was more mathematically involved; and Bonatti, after a brief and not very clear account of it, refers his readers to Al-Qabīṣī for details.¹⁰

The starter and the length of life

Like most astrological authors both of his own era and later, Ptolemy viewed directions first and foremost as a means of determining the length of a subject’s life. This procedure formed the basis of all other predictions. In a phrase perhaps originating with Nechepso-Petosiris, and echoed by astrologers throughout the centuries, Ptolemy writes:¹¹

⁷ Al-Qabīṣī’s work was translated into Latin in the twelfth century. For his teaching on directions see C. Burnett et al., *Al-Qabīṣī (Alcabitus): The Introduction to Astrology* (London 2004) 121 ff.

⁸ Transl. R. R. Wright, *The Book of Instruction in the Elements of the Art of Astrology* (London 1934) 382–383.

⁹ G. Bonatus, *Tractatus astronomie* (Augsburg 1491) 328^r, transl. B. Dykes, *The Book of Astronomy by Guido Bonatti* (Golden Valley 2007) 1145; additions in square brackets are mine.

¹⁰ Bonatus, *Tractatus* 397^v (1415 Dykes).

¹¹ *Tetr.* 3.11.1 (202 Hübner, 271 Robbins).

The consideration of the length of life takes the leading place among inquiries about events following birth, for, as the ancient says, it is ridiculous to attach particular predictions to one who, by the constitution of the years of his life, will never attain at all to the time of the predicted events.

The “constitution of the years of life” is found by the directions involving the main significator of life. This significator, identified according to particular rules, is known as the ἀφέτης or “starter,” as in a race. Once the starter has been found, the next task is to identify the “destroyer” or ἀναιρέτης, the planet or point—such as an aspect—which will put an end to life. When the starter is directed to the destroyer, the subject of the nativity dies. Some authors, though not Ptolemy, add the concept of a “ruler” or οἰκοδεσπότης—a third planet which, by arithmetical methods, will determine the maximum longevity of the person born. This concept was further developed in Perso-Arabic astrology, where it was known as *al-kadkhudāh*, eventually Latinized as *alcochoden*, with many variants.¹²

Not only the time, but even the quality and circumstances of death were thought to correspond to the destroyer and the astrological factors influencing it: Ptolemy gives a detailed list of the illnesses by which each of the five planets may kill the subject, from rheumatism and pneumonia to madness and melancholy. In cases of extreme astrological affliction, the person dies a violent and remarkable death such as from fighting wild animals on festival days, being shipwrecked or killed by pirates, crushed by a collapsing building, burnt alive, or crucified.¹³

The rules for identifying the starter vary slightly from one classical author to another, but all agree on the importance of sect or ἄρσεις, dividing planets and other points into a solar or diurnal camp and a lunar or nocturnal one. The sun and moon

¹² Pace Bouché-Leclercq (*L'astrologie* 411), who believed *alcochoden* to be a direct corruption of the Greek οἰκοδεσπότης, *kadkhudāh* is a Persian translation of the same, borrowed into Arabic.

¹³ *Tetr.* 4.9 (334–344 Hübner, 427–437 Robbins).

are given precedence for the office of starter by day and night, respectively, if occupying good places (τόποι)—generally understood as angular and succedent places aspecting the ascendant. Ptolemy accepts only places above the horizon in addition to the ascendant itself; Dorotheus is reported by Hephaestio to have preferred only the first, tenth, and eleventh places.¹⁴ When neither luminary is acceptably placed, most authors assign the office of starter to the ascending degree, or else to a secondary point derived from these three elements: the degree of the syzygy preceding birth or that of the so-called Lot of Fortune (κλήρος τῆς τύχης), computed by projecting the ecliptical distance between the sun and moon from the rising degree. Here, too, Ptolemy differs from common practice by preferring one of the five planets as starter, provided that the planet in question is suitably placed and bears at least three relations of dominion (οἰκοδεσποτεία) to one of the major sect points.¹⁵

The primary destroyers are Saturn and Mars, the naturally malefic planets; but under certain circumstances, the luminaries may perform the same office. Vettius Valens states: “The destroyers are Saturn, Mars, the sun, and the moon when brought towards heliacal rising”;¹⁶ and according to Ptolemy, “the places of the maleficent planets, Saturn and Mars, destroy ... when the moon is starter, the place of the sun also de-

¹⁴ For Ptolemy’s views see *Tetr.* 3.11.3–4 (203–205 Hübner, 273–275 Robbins). For Hephaestio’s report on Dorotheus see *Heph. Astr.* 2.26.25–34, quoted in D. Pingree, *Dorothei Sidonii Carmen astrologicum* (Leipzig 1976) 369–370.

¹⁵ The sect points by day are the sun, the prenatal conjunction of the luminaries, and the rising degree; by night they are the moon, the prenatal opposition, and the Lot of Fortune. The relations of dominion are domicile, exaltation, triplicity, terms, and aspect.

¹⁶ Vett. Val. 3.3.42 (131 Pingree): ἀναιρέται δέ εἰσι Κρόνος Ἄρης ἥλιος Σελήνη ἐπὶ φάσιν φερομένη. The last phrase, referring to the invisible new moon, is misunderstood by Knobloch/Schönberger (131), who translate: “der Mond, wenn er in Erscheinung tritt” (emphasis mine).

stroys.”¹⁷ Another factor to be considered is the quadrant or quarter-circle, which seems to have been fundamental to some early theories on length of life. Dividing the 360° of the zodiac by four, with some variation to either side depending on the different rising times of the zodiacal signs, gives a reasonable approximation of the years of a full human life-span. If no destroyer intervenes, the starter reaching the end of its quadrant could indicate the end of life. Valens argues that ascensional quadrants, rather than ecliptical, should be used for this purpose.¹⁸ Ptolemy expresses two similar but not identical ideas, stating that the square aspect ahead of the starter in the zodiac may destroy, as well as the western horizon when the starter is descending towards it, “because it causes the lord of life to vanish.”¹⁹

The Balbillus horoscopes

The earliest preserved examples of the determination of life-span based on starter and destroyer originate with Balbillus, who, like his father Thrasyllus (d. 36 CE) before him, served as a Roman imperial astrologer. Two nativities discussed by Balbillus in connection with the length of life were preserved in a late Byzantine text²⁰ and are discussed by Neugebauer and Van Hoesen, who date them to 21 January 72 BCE and 27 December 43 BCE, respectively.²¹ More recently, in an introduction to ancient astrology, Roger Beck has attempted to outline the procedure employed by Greek astrologers to establish a subject’s length of life using these two somewhat fragmentary horoscopes. Regrettably, Beck seems more concerned with

¹⁷ *Tetr.* 3.11.12 (210–211 Hübner, 283 Robbins). I have substituted “starter” for Robbins’s “prorogator” for the sake of clarity. A more literal translation would be “with the moon sending forth” (σελήνης δὲ ἀφείσης).

¹⁸ Vett. Val. 3.3 (128–132 Pingree, 128–132 Knobloch/Schönberger).

¹⁹ *Tetr.* 3.11.10 (209 Hübner, 281 Robbins).

²⁰ *CCAG* VIII.4 (Brussels 1921) 236–237.

²¹ Neugebauer and Van Hoesen, *Greek Horoscopes* 76 ff. In accordance with astronomical convention, the authors refer to the years as –71 and –42.

distancing himself from his “wretched subject” (to use Neugebauer’s phrase)²² than with improving our understanding of it, and uncritically reproduces the mistakes of Neugebauer and Van Hoesen.²³

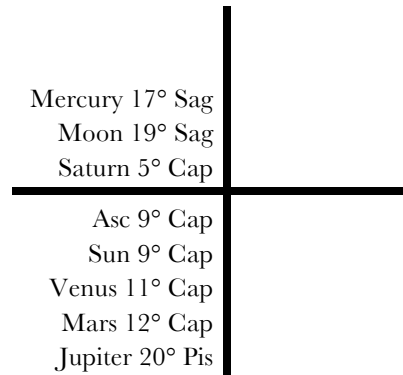


Figure 1: Nativity L-42

In the first nativity discussed (chronologically the later one), Balbillus takes the rising sun to be the starter (see *fig. 1*). Mars, rising after the sun, would be the first choice for destroyer, but is too close to the benign rays of Venus to perform this office. Neugebauer and Van Hoesen translate as follows (additions in square brackets mine):²⁴

²² “The Study of Wretched Subjects,” *Isis* 42 (1951) 111.

²³ The cursory treatment of the ἀφέτης theory and of the Balbillus horoscopes is found in R. Beck, *A Brief History of Ancient Astrology* (Oxford 2007) 120 ff.; instances of the author’s gratuitous protestations of disbelief and ridicule here and *passim*. The erroneous interpretations of Neugebauer and Van Hoesen have also found their way into a relatively recent sourcebook of Greek science: G. L. Irby-Massie and P. Keyser, *Greek Science of the Hellenistic Era* (London/New York 2002) 98 ff.

²⁴ The Greek text of this passage, discussed in some detail below, runs: φησὶ δὲ καὶ δ’ εἶναι ἀναιρέτας Ἥλιον, Σελήνην, Κρόνον, Ἄρεα ... καὶ φησὶν Ἥλιον ἀφέτην εἶναι τῆς γενέσεως, μὴ γενέσθαι δὲ ἀναιρέτην Ἄρεα, διὰ τὸ τὴν Ἀφροδίτην αὐτῷ ἐπαναφέρεσθαι εἰς τὸν ἡ’ μοιρῶν καὶ εἶναι αὐτὸν ἐν ὑψώματι ἰδίῳ.

He [Balbillus] also says that there are four destroyers: sun, moon, Saturn, Mars ... And he says that the sun is the starter of the theme [γένεσις, nativity], whereas Mars could not become destroyer, because Venus is rising after it (the sun) within 8°, although he (Mars) is in his own exaltation (Υἷο).

This translation has multiple problems: first, the concessive sense of the final clause is not warranted by the original; second, the construction as a whole is syntactically unlikely; and third, it is contradicted by the astrological reasoning of the passage. It is the proximity of Mars itself (not the sun) to the naturally beneficent Venus, as well as Mars' ennobling position of exaltation (ὑψωμα), that will prevent it from working its evil purpose as a potential destroyer. This principle is clear from another passage paraphrasing Balbillus: "Then he says that if indeed the destroyer should encounter the starter and be aspected by the ray of a benefic, the destroyer does not destroy."²⁵ A similar exception is found in Ptolemy: "For they are prevented ... if one of the beneficent planets project its ray from quartile, trine, or opposition either upon the destructive degree itself or upon the parts that follow it, in the case of Jupiter not more than 12°, and in that of Venus not over 8°."²⁶ The proximity of Venus to the sun would, of itself, have no bearing on the destructive propensities of Mars.

The unlikely reference to the sun made by the translators is based on their understanding of the verb ἐπαναφέρεσθαι, which they render as "rising after"—and Venus does not rise after Mars, but after the sun. No doubt this rendering was based on the technical term ἐπαναφορά, signifying a "succeedent" place, that is, one following an angle or κέντρον. However, as the internal coherence of the argument presented requires that the pronoun αὐτῷ refer to Mars, we must either accept the alternative reading προαναφέρεσθαι "rising before"

²⁵ *CCAG* VIII.3 103–104: εἶτα φησὶν ὅτι περὶ ἐὰν ἀπαντήσῃ τῷ ἀφ᾽ ἑτῆ ἀναιρέτης, σκέπτεται δὲ ὑπὸ ἀκτίνος ἀγαθοποιοῦ, οὐκ ἀναιρεῖ ὁ ἀναιρέτης.

²⁶ *Tetr.* 3.11.13 (211–212 Hübner, 285 Robbins).

found in one manuscript, or else broaden our interpretation of ἐπαναφέρεσθαι. Generally speaking, the meaning of the verbal prefix ἐπί is not confined to the sequential “after”: in a spatial sense—as indicated here by the phrase “within 8°”—it may also signify “with” or “near.” Nevertheless, the meaning “rising with” for ἐπαναφέρεσθαι must remain conjectural until supportive passages from other astrological texts have been identified.

Adopting either the alternative reading or the alternative understanding of ἐπί will also remove the need for Neugebauer and Van Hoesen’s awkward and implausible interpretation of αὐτῷ and αὐτόν, occurring in close proximity in the same sentence, as referring to two different bodies (the sun and Mars). A more meaningful translation, then, would be:

Mars could not become destroyer, *due to his rising with/before Venus* within 8° and [due to] his being in his own exaltation.

The next potentially destructive point to reach the sun as starter would be the square or quartile aspect of the moon, located 90° ahead of the moon along the ecliptic. The translation of L-42 continues:

And so one comes to the destructive sign, which is the one rising before the starter, i.e., Sagittarius. And finding there the moon (in ♐ 19), he says that it becomes the destroyer. Taking the orbit of the sun up to the quartile of the degree of the moon (♏ [sic] 19), i.e. Pisces 19, then, he says, comes the destruction.

The sun as giver of life is located exactly on the eastern horizon, while the square of the moon as destroyer is some distance below it. The motion of the celestial sphere, bringing this destructive point to the horizon—the natal place of the sun—would be symbolically converted into years, indicating the life-span of the person born. In the present nativity, this calculation has been omitted, and no allotted number of years is actually given by Balbillus. The translators claim that “analogy to the procedure in [horoscope] No. L-71 [discussed below] leads us to restore the conclusion that the span of life allotted was 70 years, corresponding to the arc from ♄ 9 to ♐ 19.” The latter figure is a misprint for ♋ 19 (the place of the moon’s

square); but in either case the simplistic procedure referred to has no foundation in the text and is, in fact, based on a misunderstanding. The arc or distance of a direction to the horizon was normally measured, as we have seen, by rising times (in an approximation of oblique ascension); and there is nothing in the preserved horoscopes to suggest that Balbillus would have measured his arcs by degrees of ecliptical longitude.²⁷ Assuming the nativity to have been cast for Alexandria, the 70° of longitude would in this case correspond to some 58° of oblique ascension—a difference of twelve years in life expectancy for Balbillus' client!

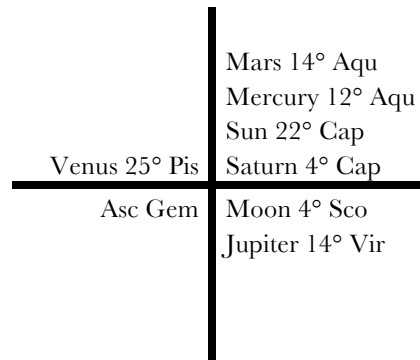


Figure 2: Nativity L-71

The second nativity given by Balbillus (see *fig. 2*) is more intriguing for several reasons, the first of which is the selection of the starter. Again, Neugebauer and Van Hoesen translate:

And, since the luminaries (sun and moon) did not fall in a center [κέντρον, that is, an angular place], he went to the epanaphorai [succeedent places], and he did not take the Horoscopos [the ascending degree] as starter, nor the sun, which was in [the]

²⁷ Neugebauer and Van Hoesen speak of “many similar discussions of the duration of life in the work of Vettius Valens” (78); but to my knowledge there is not, among the many and varied procedures employed by that author, a single instance of measuring the arc of life by ecliptical longitude.

epanaphora of the setting point, but he took Saturn in Capricorn as starter. And this, I think, because it (Saturn) had the greater claim in the theme [that is, nativity] and was in his [Saturn's] own house (♄).

As we have seen, assigning the office of starter to one of the five planets was not a universal practice: authors of the classical era generally reserved this dignity for the two luminaries and the ascending degree, or for secondary points derived from these. The notable exception is Ptolemy; and it is therefore suggestive to see this practice in an author preceding Ptolemy by approximately a century.

It is pertinent to note here that a surviving synopsis of Balbillus' lost *Astrologoumena* ascribes a wholly unique doctrine of the starter to him: "And he names four starters: Saturn, Mars, sun, moon."²⁸ There are, however, several reasons to doubt the accuracy of this report. First, as we have already seen, the same four heavenly bodies are the potential life-destroyers of Balbillus; and the word "starters" (ἀφέτας) could very easily be a copyist's error for the similar "destroyers" (ἀναιρέτας). Second, it seems highly unlikely that Balbillus should have regarded the two naturally maleficent planets as givers of life while excluding the beneficent Jupiter and Venus. Third, the very uniqueness of such a doctrine, attested nowhere but in this single sentence, makes it doubtful: the precepts employed by Balbillus are generally corroborated by other early astrological authors.

Nevertheless, Balbillus did select Saturn as the starter of the nativity under discussion; and the excerptor gives as his opinion that this was because Saturn "had the greater claim in the theme and was in its own house." In the context of classical Greek astrology, "having a claim in the theme" (λόγον ἔχειν ἐν τῷ θέματι) means holding a position of dominion relative to the most important points in a nativity, as discussed above. In the present nativity—a diurnal one, as the sun is seen above the line of the horizon—Saturn holds dominion over the ascending

²⁸ *CCAG* VIII.3 103: ἀφέτας δὲ δ' λέγει, Κρόνον, Ἄρεα, ἥλιον, Σελήνην.

degree by triplicity and over the sun (luminary of the day) by terms, domicile, and conjunction. The translation continues:

And he says that Mars in Aquarius is the destroyer and he computed the distance from Aries to Mars, and so long, he said, would be the length of life.

Here a major problem ensues: as Aries is not a point but a 30° section of the ecliptic, the phrase “he computed the distance from Aries to Mars” carries no obvious meaning. For this reason, Neugebauer and Van Hoesen consider themselves “probably entitled to interpret this procedure more accurately as measuring the arc between Mars (≈ 14) and the quartile of the starter, i.e. $\gamma 4$... The result would be an arc of 50°, indicating a lifetime of 50 years.” As above, the supposition that the arc of direction should be measured in degrees of ecliptical longitude is unfounded and highly improbable; but the suggested interpretation presents an additional difficulty.

In the scenario envisioned by the translators, it is the square or quartile of the starter (Saturn) which would be brought by the celestial motion towards the destroyer (Mars), rather than vice versa. This would make the starter the active element of the direction, transmitting its influence to the destroying planet by, as the technical term would be, “casting its ray” towards it ($\acute{\alpha}\kappa\tau\iota\nu\omicron\beta\omicron\lambda\acute{\iota}\alpha$). By contrast, all available sources—including the preceding Balbillus horoscope, which is invoked by the translators in support of their interpretation—agree that it is the destroyer which should cast its ray towards the starter. Normally, the ray or aspect of the destroyer is ahead of the starter in the zodiac; this is what Ptolemy calls a direction “into the following signs,” considered the more effective variant. Occasionally the positions are reversed, making a direction “into the preceding signs”; but in either case, the destroying planet is the one casting its ray, which the starter receives.²⁹ The aspect of the starter

²⁹ The former kind was known from medieval times as direct motion, the latter as converse motion. Astronomically, the motion involved in both variants is identical: the apparent daily rotation of the celestial sphere from

is never moved towards the destroyer as suggested by Neugebauer and Van Hoesen.

What are we then to make of the statement that Balbillus “computed the distance from Aries to Mars”? Almost four decades before the Neugebauer and Van Hoesen translation, the critical editor Franz Cumont had in fact solved the problem by suggesting, very reasonably, “Aries” (Κριοῦ) to be a copyist’s error for “Saturn” (Κρόνου). The sentence in question should therefore read:

And he says that Mars in Aquarius is the destroyer and he computed the distance *from Saturn to Mars*, and so long, he said, would be the length of life.

Saturn, the starter, is thus directed into the following signs towards the bodily conjunction of the other malefic, Mars, whose destructive qualities are increased by its being of contrary sect both to Saturn and to the horoscope as a whole. The precise method employed by Balbillus for computing this arc of direction is unknown to us. It was perhaps most likely a simple calculation of rising times, although it is not inconceivable that Balbillus’ mathematical procedures, like his method of selecting the starter, were akin to those employed by Ptolemy. Again assuming Alexandria to have been the place of birth, the distance between Mars and Saturn calculated by oblique ascension would be some 37°; by the proportional method of Ptolemy, it would be around 45°–47° depending on the rising degree.

That at least the excerptor had equatorial degrees in mind is strongly suggested by the phrase τοὺς τῆς ζωῆς χρόνους, which Neugebauer and Van Hoesen translate as “the length of life” but which literally means “the times of life.” The plural “times” is used in Greek astrological texts to signify degrees of the equator passing over the horizon or meridian, each degree being equated to a year of life (another meaning of χρόνος).³⁰

east to west.

³⁰ See, for instance, the example calculation in Ptol. *Tetr.* 3.11.23–34 (217–223 Hübner, 295–307 Robbins).

This usage in fact recurs in the very next paragraph, which touches on the themes of the quarter-circle and of the destroyer being held back by the aspects of the benefic planets:³¹

But he says that when a destroyer is not found powerfully approaching the starter, we take the times (τοὺς χρόνους) [from the starter] up to [the end of] the quadrant. For if somehow encountering [the starter] by square or opposition, [the destroyer] is beheld (ἐπιθεωρεῖται) by Jupiter or Venus within 12 degrees or 8, [respectively], then it is necessary to measure the times up to [the end of] the quadrant.

As this passage makes it clear that the progress of the starter is measured in χρόνοι (“times” or equatorial degrees) rather than μοῖραι (zodiacal degrees), it is unfortunate that it was overlooked by Neugebauer and Van Hoesen, whose translation ends with the sentence immediately preceding.

In conclusion, we see that Neugebauer and Van Hoesen, as well as more recent authors building on their work, failed to grasp three major points of Balbillus’ astrological method in determining the length of life from starter and destroyer. First, that Balbillus, like other astrologers of the classical era, measures the arc of life not in degrees of ecliptical longitude but in equatorial degrees—most probably in an approximation of oblique ascension, although more sophisticated procedures cannot be ruled out. Second, that this arc is measured from the degree of the starter itself to the degree of the destroyer or the destroyer’s point of aspect, as the destroyer is necessarily the active element of the direction. Third, that the benevolent planets Jupiter and Venus must influence the destroyer, not the starter, in order to prevent the destroyer from causing death. This misunderstanding has led to several errors of translation

³¹ *CCAG* VIII.4 237: φησὶ δὲ ὅτι ἐὰν μὴ εὕρεθῃ ἀναιρέτης ἰσχυρῶς ἀπαντῶν τῷ ἀφάρτῃ, ἕως κέντρου λαμβάνομεν τοὺς χρόνους· † πῇ γὰρ ὅτι ὑπάντησεν μὲν κατὰ τετράγωνον ἢ διάμετρον, ὑπὸ δὲ Διὸς ἢ Ἀφροδίτης ἐπιθεωρεῖται εἴσω ἰβ’ μοιρῶν ἢ ἡ’· ἀνάγκη οὖν τότε τοὺς χρόνους ἕως κέντρου μετρεῖν.

and interpretation. Finally, we may note that Balbillus, although preceding Ptolemy by approximately a century, appears to employ a method of selecting the starter reminiscent of Ptolemy's but differing from that of other classical Greek authors.

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