THE RECEPTION OF PHILONIC ARITHMOLOGICAL EXEGESIS IN DIDYMUS THE BLIND'S COMMENTARY ON GENESIS

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Arithmology is one of the most popular methods of accessing allegorical meaning in ancient Alexandrian interpretation. Philo is especially fond of arithmology. He informs us on at least two occasions that he wrote a separate treatise on numbers.¹ While there is no reason to doubt Philo's claim, the treatise was apparently unknown to Eusebius of Caesarea, who produces our earliest catalogue of Philo's works.² Still, so many discussions of numbers occur in Philo's extant works that we cannot imagine the lost treatise would add much substance to what we already know of Philo's number theory. The *De opificio mundi*, for example, features forty-nine paragraphs devoted to the study of numbers, most prominently the number seven.³ This is why it is surprising that only one monograph has been devoted to arithmology in Philo, and no study focused exclusively on arithmology in Philo has been published, to my knowledge, in over thirty-five years!⁴ A comprehensive study of Philonic arithmology is all the more necessary

¹ Mos. 2.115; QG 4.110. The treatise is alluded to in Opif. 15, 52 and Spec. 2.200.

² See Eusebius, *Hist. eccl.* 2.18. No certain quotations from the Greek fathers have been identified, but a possible Armenian fragment has been published by Abraham Terian, "A Philonic Fragment on the Decad," in *Nourished with Peace: Studies in Hellenistic Judaism in Memory of Samuel Sandmel*, ed. Frederick E. Greenspahn, et al. (Chico, Calif.: Scholars, 1984), 173–82, and a Latin fragment has also been tentatively identified by François Petit, *L'ancienne version latine des Questions sur la Genèse de Philon d'Alexandrie* (TU 113–14; Berlin: Akademie Verlag, 1973), 2: 89. Both of these references are provided by David T. Runia, *On the Creation of the Cosmos According to Moses* (PACS 1; Atlanta: SBL, 2001), 27.

³ Over twenty-five percent of Philo's *Opif*. is taken up with comments on numbers (David T. Runia, *On the Creation*, 25).

⁴ The monograph was released over eighty years ago (Karl Staehle, *Die Zahlenmystik bei Philon von Alexandreia*; Leipzig and Berlin: Teubner, 1931). Other helpful studies include the contributions of Frank Egleston Robbins, "Posidonius and the Sources of Pythagorean Arithmology," *CP* 15 (1920): 309–322; "The Tradition of Greek Arithmology," *CP* 16 (1921): 97–123, and especially "Arithmetic in Philo Judaeus," *CP* 26 (1931): 345–61. More recently, Horst Moehring has explored the subject with special emphasis on the number seven ("Arithmology").

when we consider the importance of arithmology in the Alexandrian patristic tradition—a tradition that can be traced intellectually, if not organically, to Philo.

Didymus the Blind, the fourth century Christian scholar, stands firmly in the Alexandrian tradition of biblical interpretation. A reader of Philo, Clement and Origen, Didymus utilizes number theory to explicate the biblical text. In the Tura Commentary on Genesis alone there are over twenty separate discussions of numbers, almost all of which contribute to an allegorical interpretation. In fact, Didymus is far more interested in arithmology even than Clement and Origen. Ann Browning Nelson observes that the Tura commentaries of Didymus "offer one of the densest uses of numerological interpretation in any patristic author."⁵ We can see the mathematical training of Didymus in references to psephic illustrations, indicating that Didymus had studied mathematics in a scholastic setting of some kind.⁶ He also understands the language of geometry, referring to squares, cubes, tetragons, and even discussing three-dimensional figures.⁷ It is interesting to think of a blind student handling pebbles and imagining their arrangement into geometric shapes. It would stand to reason that such concrete illustrations would have held particular interest for a young Didymus. However, Didymus, like Philo, does not discuss mathematics for its own sake, but always utilizes the science in service to anagogical exegesis.

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as an Exegetical Tool in the Writings of Philo of Alexandria" in SBLSP 1 [1978]: 191–227, republished in *The School of Moses: Studies in Philo and Hellenistic Religion in Memory of Horst R. Moehring*; ed. J.P. Kenney; BJS 304 = SPhiloM 1; Atlanta: Scholar's Press, 1995, 141–76).

⁵ "The Classroom of Didymus the Blind" (Ph.D. diss., University of Michigan, 1995), 155.

⁶ Didymus even states ψῆφος signifies ἀριθμός in the Bible (*Comm. Eccl.* 226.2–3), a point doubtless based on illustrating mathematical principles with small stones (cited in Nelson, "The Classroom," 155).

⁷ See *Comm. Zach.* 4.19–5.7; *Comm. Job* 10.16; *Comm. Gen.* 184.20–21; *Comm. Ps.* 156.20–27; see Nelson, "The Classroom," 158–59.

When we turn to Philo's comments on numbers, we learn that he is a man of the times. John Dillon has argued that the philosophy of Eudorus of Alexandria, the thinker who most prominently witnesses to the synthesis of Pythagoreanism and Platonism, exerted a significant influence on Philo.⁸ Whether or not we can attribute Philo's "Pythagoreanism" to such a specific influence, it is true that Philo accepts the superiority of the first ten numbers, as virtually all Pythagorean thinkers do. He writes in *Quaestiones in Genesin* 4.110, "for one is the beginning of the numbers, and ten is the end."⁹ Philo also distinguishes in the same paragraph between "one" and the Monad: "And the monad differs from one as the archetype surpasses and differs from the copy, for the number, and "Monad" to the principle underlying number. Such a statement accords with Pythagorean and Middle Platonic thought in general, but did not characterize the earlier Pythagoreans.¹¹ Thus we see, by way of example, that Philo is aware of the contemporary developments in arithmological theory.¹²

While it can be established that Philo is a man of the times, it can also be said that Philo does little more than parrot accepted wisdom in the field of arithmological science. Frank Egleston Robbins wrote over eighty years ago, "Philo was no mathematician, in the professional sense, and made no contributions ... to the mathematical sciences."¹³ There is no reason to revise this statement today. Still, Philo left his impression on later Christian authors who drew from

⁸ See Dillon, *The Middle Platonists: 80 CE to AD 220* (Ithaca, New York: Cornell University Press, 1977), 114–83 on Eudorus and Philo. The section devoted specifically to Philo highlights a number of Pythagorean themes (139–83).

⁹ Trans. LCL.

¹⁰ This passage agrees with a parallel in John Lydus (Staehle, *Die Zahlenmystik*, 20).

¹¹ Robbins theorizes that distinguishing the unity from the one is Middle Platonic, being found also in Moderatus and later in Theon ("The Tradition," 120–21). Theon explicitly says that Philolaus and Archytas did not distinguish the terms (see Robbins, "Arithmetic," 348).

¹² Philo is not always consistent in distinguishing the "One" from the "Monad" (e.g., *Imm.* 11).

¹³ "Arithmetic," 346.

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him methodologically, if not directly. Clement of Alexandria, for example, refers to Philo on two occasions as "the Pythagorean," which, among other potential references, must include his interest in explaining biblical numbers.¹⁴ Origen likewise borrows a few arithmological interpretations from Philo.¹⁵ These authors did not learn mathematics from Philo, but how to apply their mathematics to biblical exegesis. Indeed, they shared with Philo the fundamental Pythagorean assumption that number was inherent in everything that truly exists.¹⁶

Moses, of course, understood the principles of number better than anyone. In De

specialibus legibus 4.105 Philo writes:

For as he [Moses] always adhered to the principles of numerical science, which he knew by close observation to be a paramount factor in all that exists, he never enacted any law great or small without calling to his aid and as it were accommodating to his enactment its appropriate number. But of all the numbers from the unit upwards ten is the most perfect and, as Moses says, most holy and sacred.¹⁷

The preceding comment has as its base the idea that the Jews are permitted to consume the flesh

of only ten animals.¹⁸ Thus Moses is obedient to the most perfect number. The more important

idea here is that Moses not only knew the mathematical sciences, but always embedded the

principles of mathematics in the biblical legislation. We may recall the comment by Aristoblus

that Moses was the teacher of Pythagoras,¹⁹ a view Philo probably knew and accepted.²⁰ Thus,

¹⁴ See David T. Runia, "Why Does Clement of Alexandria Call Philo the 'Pythagorean." *VC* 49 (1995): 1–22. On Clement's Pythagoreanism, see Eugene Afonasin, "The Pythagorean Way of Life in Clement of Alexandria and Iamblichus," in *Iamblichus and the Foundations of Late Platonism* (ed. Eugene Afonasin, et al.; Leiden: Brill, 2013), 13–36.

¹⁵ E.g., *Hom. Gen.* 16.6 (borrowing from *Migr.* 204) and *Comm. John* 28.1–5 (borrowing from *Opif.* 13; *Leg.* 1.3). On Origen's Pythagoreanism, see Gerald Bostock, "Origen and the Pythagoreanism of Alexandria," in *Origeniana Octava: Papers of the* 8th *International Origen Congress* (ed. Lorenzo Perrone; Leuven: Peeters), 465–78.

¹⁶ This was true of Pythagorean number theory already at the time of Aristotle (*Met.* 985b22–986a3).

¹⁷ Trans. LCL.

¹⁸ Deut 14:4–5.

¹⁹ Fragment 3 (= *Praep. ev.* 13.12.1).

by utilizing arithmological interpretation, Philo is merely extracting by means of allegory what Moses intended long ago.

Arithmology in Didymus the Blind

Turning to Didymus we encounter an author who had received a broad education, including studies in rhetoric, astronomy, geometry, arithmetic and philosophy.²¹ In his book on Didymus, Gustave Bardy discusses each of these subjects in relation to the writings of Didymus known to him at the time. When he comes to the subject of arithmology, Bardy remarks, "il n'y a rien là de particulièrement original, et qui suppose une forte culture arithmétique."²² After the discovery of the Tura commentaries, Bardy's assessment needs revision. While it is still true that no mathematical originality can be seen in Didymus, it is not true that he was uninfluenced by the "culture arithmétique" of late antiquity.

Even though Didymus probably learned mathematics in school, his arithmological interpretations point to the almost certain conclusion that he, like Philo before him, utilized textbooks. In his brief survey of arithmology in his edition of the *Commentary on Zechariah*, Louis Doutreleau states, "Il y avait des recueils d'arithmologie et il apparaît bien que Didyme avait le sien, ou que, du moins, il en connaissait en détail le contenu."²³ A little later in his survey, Doutreleau opens up another possible influence on Didymus' arithmological theory: "On voit que ces spéculations [on the mystical significance of numbers], si elles ne dérivent pas directement des traités de Jamblique, semblent sortir sans grande modification des manuels

²⁰ Ps-Iamblichus records in his *Vita Pythagorica* 14 that Pythagoras spend time in Palestine "consorting with the descendants of Mochos, the prophet and philosopher."

²¹ Sozomen, *H.E.* 3.15.1; Theodoret, *H.E.* 3.30.3.

²² Didyme l'Aveugle (Études de Théologie Historique 1; Paris: Beauchesne, 1910), 220.

²³ Sur Zacharie 1 (SC 83; Paris: Editions du Cerf, 1962), 112.

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auxquels Didyme les emprunte.²⁴ Unfortunately, Doutreleau does not cite any parallels from Iamblichus, nor does he develop this idea any further. However, since Iamblichus wrote several textbooks on arithmology and these were heavily influential in the fourth and fifth centuries CE, it is not too much of a stretch to imagine that Didymus had access to Iamblichus' writings on the subject.²⁵

The influence of Iamblichus is yet to be traced out, but a more important influence for our purposes is Philo of Alexandria. While both Clement and Origen practice arithmology, neither of them is as enthusiastic about the science as Philo and Didymus. Even without the aid of the Tura commentaries, which were discovered over three decades after his study was published, Bardy could suspect the influence of Philo and Origen on Didymus' arithmological exegesis. Having surveyed some of Didymus' numerological intepretations, he writes, "On reconnaît dans ces spéculations, l'influence de Philon et d'Origène."²⁶ Doutreleau likewise mentions that Christian authors in general followed Philo in arithmological interpretation, and the same holds true for Didymus.²⁷

What these scholars suspect Didymus himself acknowledges, on one occasion connecting Philo with both arithmology and etymology. Commenting on the chronology of Adam's life (Gen 5:3–5), he writes, "If anyone is caught up in the number of the years and in the interpretation of the names of those who are born, Philo can offer a mystical understanding

²⁴ Sur Zacharie 1: 113–114.

²⁵ Additional study is needed to investigate the extent to which Iamblichus may have influenced Didymus in general. But the interest in unifying the classical philosophers (esp. Plato and Aristotle) is present in Didymus, as it was in Iamblichus (on Iamblichus' aims see Dominic J. O'Meara, *Pythagoras Revived: Mathematics and Philosophy in Late Antiquity* [Oxford: Clarendon, 1989], 87). Also, Didymus was certainly aware of Porphyry (see Philip Sellew, "Achilles or Christ? Porphyry and Didymus in Debate Over Allegorical Interpretation," *HTR* 82 [1989]: 79–100).

²⁶ *Didyme*, 220. Curiously, this is one of only two references to Philo in Bardy's entire book on Didymus (see index). This point is noted by David T. Runia, *Philo in Early Christian Literature: A Survey* (CRINT 3.3; Assen/Philadelphia: Van Gorcum/Fortress, 1993), 198 n. 74.

²⁷ Sur Zacharie 1: 112.

without being pedantic. So, go to him on this point, for he is beneficial.²²⁸ This passage informs us that Didymus is aware of Philo's comments on numbers.

Didymus' *Commentary on Genesis* almost always follows a two-fold structure: literal interpretation followed by the usually much longer allegorical interpretation. Philonists may recall here the structure of Philo's own *Quaestiones*, a structure which may well have been adopted into Origen's Alexandrian commentary on Genesis, which has not survived except in fragments.²⁹ Here, however, Didymus bypasses his own allegorical interpretation, referring the reader to Philo for further information, as he does at least once more in the *Commentary on Genesis*.³⁰ Since Didymus operated in a classroom, it can be assumed that the students of Didymus were able to access the Philonic works at their leisure.

The exact Philonic passage which Didymus has in mind is impossible to identify.³¹ Philo discusses the names of both Adam and Seth,³² but never their ages. Therefore, several solutions are possible. First, it is possible that Didymus had no particular Philonic passage in mind. Since both etymology and arithmology are well-known subjects in Philo, Didymus simply assumed that Philo would not pass over these subjects in the case of Adam and Seth. David Runia, however, offers a different solution, suggesting that perhaps Didymus had access to the part of Philo's Allegorical Commentary that originally fell between the *De posteritate* and the *De gigantibus*.³³ Yet a third possibility, which Runia also suggests, is that Didymus is not thinking

²⁸ Comm. Gen. 147.15–18.

²⁹ The argument is asserted by Ronald E. Heine, "Origen's Alexandrian Commentary on Genesis," in *Origeniana Octava* 1: 63–73.

³⁰ The other occasion is *Comm. Gen.* 139.10–14.

³¹ See Pierre Nautin, *Sur la Genèse* 2 (SC 244; Paris: Editions du Cerf, 1978), 15.

³² In Philo, the former means "earth" (γῆ) (*Leg.* 1.90; *Plant.* 34), and the latter means "irrigation" (ποτισμός) (*Post.* 10, 124; cf. *QG* 1.81). See Lester L. Grabbe, *Etymology in Early Jewish Interpretation*, (Atlanta: Scholar's, 1988), 129 (on Adam) and 205 (on Seth).

³³ Runia, Philo in Early Christian Literature, 201.

of the "number of years" of Adam and Seth, but the 120 years before the flood,³⁴ a subject he raised already in the context, and which receives ample treatment in Philo's works.³⁵

The greater issue for our purpose is the fact that Didymus is comfortable referring his readers to Philo's etymological and arithmological explanations *instead of* offering his own. Didymus is not merely wrapping up a long anagogical discussion by referring to Philo. He is encouraging his readers to "fill out" their understanding of the passage by investigating what Philo has to say. No other author cited in the commentaries of Didymus the Blind is treated in this way.

The Methodology of Arithmology

The methodology of Didymus' arithmological exegesis indicates that he had read both Philo and Origen. First, as Ann Browning Nelson observes, almost all of Didymus' arithmological discussions occur in the context of allegorical interpretation.³⁶ This detail reflects Philo's tendency to see numbers to point to universal truths embedded in the allegorical sense of scripture. Didymus also tends to cite the biblical occurrences of a particular number before launching into arithmology, and sometimes cites only biblical testimony. This tendency reminds us of Origen, who almost always cites biblical prooftexts instead of arithmological theories. For example, the number "ten" is holy, according to Didymus, because there are ten

 $^{^{34}}$ Philo in Early Christian Literature, 202. Philo discusses the mystical significance of the 120 years in QG 1.91. But it appears that Philo devoted, or intended to devote, a much longer study to the subject. In Gig. 55-57 he draws the parallel between the 120 years of the flood and the 120 years of Moses' life (Deut 34:7), and proposes to dedicate a lengthy discussion of the 120 years. So far as I can tell, this discussion cannot be found in the extant works of Philo.

³⁵ Comm. Gen. 146.20–22.

³⁶ "The Classroom," 154.

commandments.³⁷ The number "forty" is "distressing" ($\kappa\alpha\kappa\omega\tau\iota\kappa\delta\varsigma$) because the Israelites wandered in the desert for forty years and Jesus was tempted for forty days in the desert.³⁸

Didymus also appears to temper his enthusiasm for number symbolism on occasion. First, he acknowledges that not every number carries symbolic significance.³⁹ He will often by-pass prime opportunities to interpret numbers allegorically.⁴⁰ While God is the creator of numbers, Didymus asserts, not every number demands a spiritual interpretation.⁴¹ This attitude seems to approximate the position of Origen. However, his technical discussions of the mathematical sciences and the mystical properties of numbers remind us much more of Philo. Therefore, Didymus occupies a position halfway between Origen, whose primary source on numbers is the Bible itself, and Philo, who frequently offers more "Pythagorean" explanations familiar from the arithmological handbooks.

A good example of a typical arithmological interpretation in Didymus can be found in his discussion of Genesis 6:3: "Their days shall be 120 years." He writes:

Everything which God does or says, he both does and says for a good reason [$\kappa\rho$ í $\sigma\epsilon\iota$ $\tau\iota\nu$ i $\dot{\alpha}\lambda\eta\theta\nu\eta$]. So since he says, as though a necessary point, "their days shall be 120 years," and this does not seem right, it is necessary to search out another meaning [$\delta\iota\dot{\alpha}\nuo\iota\alpha$] for the passage at hand. For the numbers which are used in the scriptures are not used by chance [$\dot{\omega}\varsigma$ $\check{\epsilon}\tau\upsilon\chi\epsilon\nu$], but for some reason. And often they are introduced in a way unsuitable to the literal meaning ($i\sigma\tauo\rho\iota\alpha$), and are thus used for some [other] reason. For when Scripture says, "I have left for myself 7000 men who have not bowed the knee to Baal,"⁴² there is no literal meaning—so many men could not have escaped the notice of Elijah [lit. "the saint"]!⁴³ Rather, for the sake of clarifying the meaning, it is stated clearly

⁴² Rom 11:14; cf. 1 Kgs 19:18.

⁴³ Origen is not so blatant in his rejection of the literal meaning, but he too allegorizes the 7000 men as those who have received "rest" (because of the number 7; *Comm. Rom.* 8.7.3–4).

³⁷ Comm. Gen. 35.3 (cited in Nelson, "The Classroom," 157).

³⁸ Comm. Gen. 190.10 (cited in Nelson, "The Classroom," 158).

³⁹ Comm. Ps. 259.32.

⁴⁰ The example Nelson cites comes at the beginning of the *Commentary on Zechariah*, where Didymus allegorizes neither the age of the prophet nor the date of his prophecy (1.1–3), "The Classroom," 156.

⁴¹ Comm. Ps. 108.26–27 (cited in Nelson, "The Classroom," 156).

that everyone who surpasses the sense-perceptible objects and the world created in six days, having come into the hebdomad, that is, into the higher sense $[\dot{\alpha}\nu\alpha\gamma\omega\gamma\dot{\eta}]$, is left behind by God as a watcher and helper of others. So the number 6 is used for the creation of the world, as a perfect number, just as was mentioned earlier. "He will deliver you six times from necessities,"⁴⁴ is not mentioned because of a number or because he will deliver from necessities only so many times, but the text states this since, as long as one is in the affairs of the [world] which was created in 6 [days], he is subject to necessities. They do not have the purification of rest, which is indicated by the hebdomad, as the Savior says to his disciples, "You are not of this world," having surpassed the necessities in it.⁴⁵ The preceding discussion was provided in order to explain that the number 120 was not used in vain, but it is necessary to notice that scripture, in utilizing numbers, fits their natural senses [oikɛĩɑ] to them, as in the case of the world being created in six days.⁴⁶

The foregoing quotation is a thesis statement on the purpose of biblical numbers in

Didymus. The scriptures contain no superfluity, and thus every number must carry significance.

However, one must beware of taking biblical numbers literally. Oftentimes, numbers are

intended for allegorical interpretation. Such is the case with "120 years." The number cannot be

literally applied to length of years in one's physical lifespan any more than 7000 can be the

number literally intended in God's conversation with Elijah.

After a few more lines of discussing the greatness of the number 6 Didymus returns to his

discussion of 120, which reminds us of Philo's own comments on the same number:

Let us, moreover, investigate the properties of the number. It is said that this number, when its own factors are added together, is doubled. For if one adds half of 120, which is 60, a third, which is 40, a fourth which is 30, a fifth which is 24, a sixth which is 20, an eighth which is 15, a tenth which is 12, a twelfth which is 10, a fifteenth which is 8, a twentieth which is 6, a twenty-fourth which is 5, a thirtieth which is 4, a fortieth which is 3 a sixtieth which is 2 and a one hundred and twentieth which is 1, this makes 240, double of 120, which consists of 15 numbers.⁴⁷ Now the number 15, when increasing by a progression makes 120.⁴⁸ But the 15 has been used to the most perfect degree, for there

⁴⁴ Job 5:19.

⁴⁵ Cf. John 8:23; 15:19.

⁴⁶ Comm. Gen. 154.3–155.3.

⁴⁷ 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20, 24, 30, 40, 60.

 $^{^{48}}$ I.e., 120 is the sum of the first fifteen numbers added together. The same point is made by Philo in an exegesis of Gen 6:3 (see *QG* 1.91).

are six degrees of the number itself [...].⁴⁹ But the phrase "Give a part to the 7" refers to the Old Testament, and "to the 8," which is a symbol for resurrection and the New Testament, making a total of 15.⁵⁰ Hence the Jews, accepting only the Old Testament, give "a part to the 7," but fail to listen when it says "give to the 8." But also the heretics who reject the Old Testament, while giving a part to the 8, fail to offer to the 7. But the orthodox man [ἐκκλησιαστικός] accepts both covenants, giving both parts. Therefore, since the number 120 doubles itself, it is a symbol of the teaching which produces the true life honored according to both action and contemplation, in order that, by doubling the lifespan [βίος] one might have this life [ζωή] which is indicated by the number....⁵¹

It is interesting to note that Philo interprets the number 120 in a generic way as indicating human life.⁵² Didymus, however, refers the number not to physical life, but to spiritual life. In order to do this he moves from 120 to 15 (the number of the factors of 120), and this makes him think of Ecclesiastes 11:2, where the numbers 7 and 8 are found together.⁵³ With the assistance of allegorizing those numbers, he arrives at the idea that the number 120 is actually positive rather than negative. Since the 15 factors of 120 equal 120 doubled (240), Didymus thinks of a double measure of life, both physical and spiritual. One is characterized by physical action and the other by spiritual contemplation. Thus, by accepting both the 7 (the Old Testament) and the 8 (the New Testament) one is offered a double portion of "life." The Philonic insight is combined with an allegorical interpretation in the Origenian fashion.

It is interesting to note that, in the *Quaestiones in Genesin* 1.91, commenting on same number, Philo makes most of the mathematical observations found in Didymus. He notes that 120 is a double number, and also comments on the 15 factors of 120. But Philo's explanation is

⁴⁹ The manuscript goes blank (see Nautin, *Sur la Genèse*, 2: 34).

⁵⁰ Eccl 11:2.

⁵¹ Comm. Gen. 155.15–156.16.

⁵² QG 1.91.

⁵³ Eight is associated with the resurrection in early Christianity, probably because the resurrection occurred on Sunday (if the Sabbath is the 7th, then Sunday would be the eighth day [cf. John 20:26]). This is the explanation in article #349 of the Catechism of the Catholic Church. Also, by gematria, the numerical equivalent to both Ἰησοῦς and ἡ ἡμέρα ἡ τρίτη, the day of the resurrection, is 888.

much more mathematically complex. Therefore, if Didymus is borrowing from Philo here, he simplifies the mathematics to a great extent.⁵⁴ He also tacks on his interpretation of Ecclesiastes 11:2 which is, of course, absent in Philo. This passage provides an example of Philo's potential generic influence, but it is apparent that Didymus has added plenty of information on his own.

Another example can be located in Didymus' discussion of Genesis 1:14–19, which drifts into an excursus on numbers. He notes that the six days in Genesis 1 are not to be taken literally (since days are measured by the sun, which was not created until the fourth day).⁵⁵ Rather, the days of Genesis 1 must be intended to reflect the symbolic power of numbers.⁵⁶ This principle is born out by the fact that 6 is a perfect number. Didymus writes, "For the first of the perfect numbers is 6. And they say that perfect numbers are equal to the sum of their own parts, and there are only four such numbers from 4 to 10,000.⁵⁷ 6 is the first, of which half is 3, a third is 2, a sixth is 1, and adding these together produces 6."⁵⁸

Discussions of perfect numbers are standard in the mathematical handbooks of late antiquity, and both Philo and Didymus were aware of them.⁵⁹ The number 6 is the most often discussed perfect number, probably because the proofs of its perfection are much simpler.⁶⁰ Philo

⁵⁴ In *QG* 1.91, as often in the *Quaestiones*, Philo simply extols the arithmological characteristics of the biblical number. Here, in connection with the number 120, Philo lists seven explanations of the number. Strangely, though, he concludes with a literal interpretation: "But perhaps a hundred and twenty years are not the universal limit of human life, but only of the men living at that time, who were later to perish in the flood after so great a number of years, which a benevolent benefactor prolonged, allowing repentance for sins" (trans. LCL).

⁵⁵ Philo makes a similar argument (*Leg.* 1.2–3).

⁵⁶ The argument that God is beyond time and thus the days of Genesis 1 cannot be literal is Philonic (*Opif.* 13, 28; *Leg.* 1.20).

⁵⁷ Didymus continues in this context to discuss the next perfect number, 28.

⁵⁸ Comm. Gen. 34.10–13.

⁵⁹ See Theon of Smyrna 45.9ff; Nicomachus, *Ar.* 1.16; Iamblichus, *In Nic.* 32.20ff (cited in Walter Burkert, *Lore and Science in Ancient Pythagoreanism* [trans. Edwin L. Minar, Jr.; Cambridge: Harvard University Press, 1972], 431 n. 27).

⁶⁰ Four perfect numbers were known in antiquity: 6, 28, 496 and 8128 (Nelson, "The Classroom" 163 n. 106).

uses the argument in order to establish the sacred nature of the number 6 in Genesis 1. On its mathematical properties Philo writes, "for if we start with 1 it [6] is the first perfect number, being equal to the product of its factors $[1 \times 2 \times 3]$, as well as made up of the sum of them [1 + 2 + 3], its half being 3, its third part 2, its sixth part 1."⁶¹ Now this line of reasoning is common, and thus Didymus need not depend on Philo for it. However, Didymus' comment on the number 6 comes right after a comment that the days of creation cannot be literal, just as in Philo's *De opificio mundi*.⁶² So the order in which the arguments are made may indicate Philonic influence, as Pierre Nautin has noted.⁶³

A way in which Philonic influence is perhaps more apparent can be found in Didymus' discussion of the hebdomad. Didymus, like Philo, devotes more space to 7 than to any other number.⁶⁴ Didymus associates the hebdomad with the "epoptic power" of God on one occasion.⁶⁵ He also frequently associates it with perfection, rest and purity.⁶⁶ These connections are found in many patristic authors, and need not come from Philo at all.⁶⁷ But one passage from the *Commentary on Genesis* suggests a much closer relationship between the two thinkers.

Didymus states:

All the numbers inside the decad are produced by doubling or tripling except for 7. For example, 1 produces 2, and 2 produces 4 after it has been produced by 1, and 4 produces 8 after it has been produced by 2, and 5 produces 10. Now 6, once it has been produced,

⁶¹ *Opif.* 13, LCL.

⁶² περὶ τῶν ἕξ ἡμερῶν δεῖ νοεῖν ὡς οὐ χρονικῆς ἕνεκα παρ[εκτάσεως] παρειλημμένων, ἀλλὰ λόγου οἰκείου τῆ δημιουργία τ[οῦ θεοῦ] καὶ τῆς τοῦ ἀριθμοῦ δυνάμεως (*Comm. Gen.* 34.7–10).

⁶³ Sur la Genèse 1 (SC 233; Paris: Editions du Cerf, 1976), 93.

⁶⁴ In *Comm. Gen.* see 35.25–27; 56.23–25; 154–55; 177.8–10; 183. 25-184.21; see also *Comm. Eccl.* 317.15–26; 319.9–10; *Comm. Job* 135.28–29; *Comm. Ps.* 88.19–24; 107.18; 120.28; 125.7; 257.17; 291.27; *Comm. Zach.* 11.23–24; 117–118; 198.20–200.20; 154.20–25; 210.20–211.10; 406.6–8 (this list is taken from Nelson, "The Classroom," 196).

⁶⁵ Comm. Gen. 56.23–24.

⁶⁶ See, e.g., Comm. Gen. 133.15; 154.23; Comm. Zach. 11.24; Comm. Eccl. 317.15–17.

⁶⁷ See G.W.H. Lampe, A Patristic Greek Lexicon (Oxford: Oxford University Press, 1969), s.v. ἑπτά.

does not itself produce. But 7 is neither produced by what comes before nor produces anything that comes after itself in the decad. But 2 produces 6 and 3 produces 9 when these are multiplied by 3. But it has another property as well. For if you multiply by two the numbers starting from the monad seven times, they will produce an equilateral square: 1, 2, 4, 8, 16, 32 and 64.⁶⁸ Now 64 is a square ($8 \times 8 = 64$) and a cube ($4 \times 4 \times 4 = 64$). But if you multiply the numbers by three seven times, again starting from the monad, you get 729 which is itself also both a square and a cube: 1, 3, 9, 27, 81, 243, 729. 729 is a square ($27 \times 27 = 729$) and a cube ($9 \times 9 \times 9 = 729$). Now a square signifies solidity, but the cube⁶⁹ Therefore it is not without reason that the comments made about numbers are embedded in [ἕγκειμαι] the divine scriptures in a believable way.⁷⁰

The preceding explanation of the number 7 is inspired by Philo's discussion in *De opificio mundi* 91-101, although not in precise sequential order.⁷¹ First Didymus notes that all the numbers from 1-10 are produced by doubling or tripling other numbers except for 7. Philo too affirms that the number 7 alone is neither generated nor generates, as the handbooks claim.⁷²

Second, the examples cited by Didymus conform to Philo's three categories of numbers within the decad: (1) Those which generate, but are not generated; (2) Those which are generated but do not generate; (3) Those which are both generated and who themselves generate.⁷³ Didymus does not list these categories, as Philo does, but his examples confirm the Philonic system, beginning with the number which generates, but is not generated (number 1), then moving to examples of the numbers that both are generated and generate. Then he notes that the number 6 is generated, but does not itself generate. Finally, he mentions the number 7, which corresponds to none of these three categories.

7.

⁶⁸ Note that there are 7 numbers in the series.

⁶⁹ The manuscript breaks off.

⁷⁰ Comm. Gen. 183.27–184.23.

⁷¹ Nautin is quite clear: "Ce qui suit sur l'hebdomad vient de Philon, *De Opif.* 93–94.

⁷² Anatolius, cited in Ps-Iamblichus, *Theol. Arith.* 54.18ff states that this distinction belongs to both 1 and

⁷³ *Opif.* 33, 99, and see Robbins, "Arithmetic" 351–52.

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Didymus then switches to another property of the number 7. Multiplying by two or three the numbers in the decad until one reaches 7 will produce 64 or 729, respectively.⁷⁴ Both of these numbers form both squares and cubes.⁷⁵ Philo has the exact information in similar language. He writes, "This is a number [7] starting throughout from the number 1 and formed by doubling it and going on doubling (7 times) or trebling, or multiplying by any other number in regular progression; as, for example, the number 64 is the product of doubling from 1 onwards, and the number 729 that of trebling."⁷⁶

Didymus then notes that the numbers formed in this fashion, 64 and 729 being examples, form both cubes and squares. Philo notes that "the 7th term of any regular progression, starting from unity and with a ratio of 2, 3, or any other number, is both a cube and a square" He then cites the two numbers 64 and 729 again. Philo's text is even important for determining where the manuscript of Didymus is lacunose. Didymus writes, "Now a square signifies solidity, but the cube" Philo explains that "this number [7] contains the kinds of both incorporeal and corporeal being, the former [incorporeal] through the surface produced by squares, and the latter [corporeal] through the solidity produced by cubes."⁷⁷ We may surmise that the lacuna in Didymus' text originally had a similar discussion about the properties of cubes, and he may have even discussed corporeality in connection with them.⁷⁸ Both Philo and Didymus depend on handbooks here, but the discussion of Didymus is too similar to Philo's not to see a more direct influence.

⁷⁴ On Philo's use of ratios, see Robbins, "Arithmetic," 352–53.

⁷⁵ These discussions occur also in the handbooks (Anatolius 25.14–21; Ps-Iamblichus, *Theol. Arith.* 54.13–55.1 [cited in Staehle, *Die Arithmetik*, 35]).

⁷⁶ Opif. 91, LCL. These numbers are cited as examples in Anatolius 35.14–21.

⁷⁷ Opif. 92 (trans. Runia, On the Creation, 71).

⁷⁸ That the number seven comprises both the corporeal (solid) and the incorporeal (surface) is found in Macrobius, although the parallel is inexact (1.6.35; see Runia, *On the Creation*, 272).

Conclusion

The two lengthy passages we have discussed from the *Commentary on Genesis* offer the clearest parallels between the arithmology of Philo and that of Didymus. Other parallels exist, but they are too generic to argue definitively in favor of influence.⁷⁹ I have been unable to locate in the *Commentary on Genesis* any specific parallels between Origen and Didymus in the mathematical sciences. It would appear that Didymus frequently uses his own knowledge of mathematics to interpret biblical numbers. In contrast to etymology, where he is often directly dependent upon predecessors, in the realm of arithmology Didymus has less need for the mathematical explanations of Philo and Origen.

Nevertheless, a more generic influence can be noted. Origen's model of "scripture interpreting scripture" must be applied also to biblical numbers. Didymus usually allows biblical passages to direct his explanations of numbers. Even where he discusses Greek arithmology, parallel scriptures are still cited. Likewise, Philo has taught Didymus to use the mathematical sciences, and not just the Bible, to interpret biblical numbers. While Philo applies mathematics to elucidate the biblical text, he does not normally seek parallels in scripture.⁸⁰ This is especially the case in his *Quaestiones*. Didymus does associate Philo with arithmological exegesis, and certainly used him as a source, but it is difficult to determine in most cases where he is following Philo and where he is applying his own knowledge, whether repeated from his first-hand education, or borrowed from the mathematical handbooks that circulated widely in Late

⁷⁹ E.g., that the number 2 refers to divisible matter, or that 5 refers to the five senses (*Comm. Gen.* 44.8–9; 48.1–7; 165.8–13).

⁸⁰ Of course, Philo is focused, on the whole, on a much smaller segment of scripture (the Pentateuch).

Antiquity. Philo is most certainly a source of arithmological interpretation for Didymus, but Didymus is more than capable of continuing the Philonic legacy of arithmological exegesis.