1. Anacharsis the Scythian said that there once arose a quarrel between the Egyptians and the Scythians regarding their antiquity—both, perhaps on the basis of the two Bears, thinking it right that they [themselves] preside over affairs—and it was judged that the Scythians were older, because of the fact that their territory lay under Ursa Major, and that by nature the sea near us [i.e., the Mediterranean] takes its beginning from the Hyperborean [= "beyond the North"] Ocean, as from something superior. For (as is clear to everyone) there are two in-flows that produce it: the one from Spain, and the other, as has been said, from the Hyperborean Ocean, which the geographers call the Sea of Cronus—contrary to Ptolemy's opinion. He asserts that the one and only in-flow is the one from the western Ocean, through Gadeira. And as for their general antiquity, one could suppose that the Scythians hold first place, on the basis of their fluctuating essence, which is undisputedly first among the elements. For this reason also the Parthians, or Persians, are proud of their antiquity. But the fact that they are Scythians, all attest—and Arrian demonstrates: For according to him, the word Parthos ["Parthian"] is interpreted in the Scythian language as "the Scythian and immigrant." But in regard to the antiquity of the Greeks, the books teach us that first of all men after Deucalion [were] Greeks—Arcadians and Sicyonians, that is, archadians and archetypes and first-born. Hence also the Arcadians honored Pan—that is, this universe [to pán], thinking that nothing but perceptible things existed. In addition, myth holds them to be "pre-lunar": not because anyone would ever grant [that there were] human beings before the moon, but because (they say) the Arcadians and Sicyonians came into existence before the full delineation of the months.

2. The ancients calculated the month in accordance with the course of the moon—hence also the mèn ["month"] is named after the mènê ["moon"], that is, the moon [selène]. Selène is derived from its always having fresh selas ["light"]. For a month is the amount of time—however much the sun would have travelled—in which the light, moving along and around from

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1 Cf. Justin, Epitome 2.1, and the discussion in Wittig, Quaestiones Lydianae (1910), pp. 18ff.; this dispute goes against typical Greek reverence for Egypt's antiquity, contrasted with the relative newness of the Scythians (Herodotus, 4.5, says they call themselves the "youngest" nation). Anacharsis was a figure useful for critique of received norms of Greek culture, about whom legends and pseudepigraphic texts developed; see Kindstrand, Anacharsis: The Legend and the Apophthegmata (1981).
2 Gk. arktoi—i.e., the constellations. Could John be attempting to connect the word with archê ("rule / beginning")?
3 I.e., the Straits of Gibraltar. See Ptolemy, Geog. 7.5.3.
4 John is equating the nomadic, rootless life of the Scythians (their "fluctuating essence") with the position of formless matter (also "fluctuating essence") in the nature of the universe.
5 This seems odd; Roos (in apparatus to Arrian, Scripta Minora et Fragmenta, Parthica fr. 1 [p. 224]) suggests correcting to "runaway" (Gk. phugas), based on a comparison with Stephanus of Byzantium (s.v. Parthuaioi): "The Scythians call runaways parthoi."
6 Fragment from Arrian's lost Parthica; printed in FGrH 156, fr. 32; and also as part of Parth. fr. 1 Roos. Note that Photius, in Jacoby's fr. 30a = fr. 1 Roos, says Arrian asserted that the Parthians were a Scythian people.
7 John is making a play on words / offering an implicit etymology in which the first part of the word "Arcadian" is assimilated to the root "arch-" (meaning "beginning" or "ancient").
8 This is a word for the moon, rarely used in prose, by contrast with selênê, the word for moon used later in this sentence.
the sun's position toward the moon, returns into the same place from which it began to revolve. Hence, honoring the new-moon from conjunction to conjunction, they reckoned the year all together as being composed of 354 days, so that each month comprised 29 ½ days.

3. Timaeus defines the kosmos at one time as generated in accordance with a cause, at another time as ungenerated: ungenerated on account of the noetic powers within it, but generated as being visible and tangible and corporeal.

4. The decad is the cycle of all number, and its limit. For the numbers run their "long race" bending and turning around it, as though [around] a turning-post. It is, you see, the boundary of their infinitude. For after counting from the monad up to it and it alone, and coming into position at it, they again turn back to the monad. The decad holds together all number, as attested by nature, which supplies a human being with no more than ten fingers—but also no less. In this way, then, also as regards the nature of the year, it is possible to discover that once it is completed, it again (just like the number ten) returns into itself. And thus [39] it was named "year" [eniatous], because of its moving "in itself" [en heautoi]; for it is a circle, turning back upon itself. Now, the circle is a plane figure bounded by a single line, and thus a shape that begins from itself and ends with itself is called "circular"—which is particularly [true of] time which returns into itself and is never terminated. Hence also the Egyptians, in accordance with a sacred discourse, carve a serpent eating its tail on their pyramids. For they posit an abyss, and a serpent in it, from which they claim that the perceptible gods and the perceptible universe itself came into being. Furthermore, it is their custom to engrave a circle marked with a straight-line X on their temples, on account of the fact that the year is its own beginning and limit. For this reason the Pythagoreans named the "head" of time not "first" but "one."

5. The Egyptians are said to have reckoned the year as consisting of four months, and hence they record certain people among them as having once lived for 1000 years. And Hesiod and Hecataeus, Hellanicus and Acusilaus and Ephorus and Nicolaus says that the long-lived have
passed through even more than 1000 years, and not only those alone who possessed heroic souls, but [40] also some [normal] human beings, as Diogenes claims in his [Wonders] Beyond Thule.

And the Arcadians reckoned the year as consisting of three months, the Sicyonians of six months, and the Latins of 13 [months]; but among the Romans in ancient times it had been decreed that the year held 10 months, while later on, two additional [months] were added by King Numa: January, in honor of the intelligible [entities], February [in honor of the] material [entities]. But Gaius [Julius] Caesar later, on the basis of Egyptian teachings, ordained that the time [of the year] was 365 ¼ days, and that some of the months should consist of 30 days, others of 31 days, and February of 28. For antiquity reckoned all the 12 months of the solar year [as consisting] of 30 days, and added on the 5 ¼ days in a 13th month. And a year is the time in which the sun, after beginning from one or the other equinoctial point, from one sign (of those on the dividing circle), arrives back at the same sign.

6. The lunar months were observed, with the addition of two further months by Numa, as I have said, until the ascendency of Gaius Caesar. He, they say, outshining all others in fortune and wisdom and especially astrology, went up to Rome and increased the lunar months by the addition of 11 days, and thus made the year a complete solar year.

7. It is called bisextum on account of the fact that the Romans reckoned the sixth day before the Kalends of March twice every four years; and in this they were observing the life-generating number. This belongs to Aphrodite, and Aphrodite [was] a guardian of the Romans.

8. The moon continuously "stands upon" the generated universe, and all things here [below] are manifestly "steered" by it, as the Oracles say:

Nymphs of the springs and all the winds / spirits in the water, and hollows in earth and aer and [the region] under the rays [of the sun], moonly ones, who step (male and female) onto all

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18 Hecataeus fr. 35 (dub.) Fowler (Early Greek Mythography, 1: 141); this statement (with the list of authorities) appears also in Euseb., PE 9.13.5, citing Josephus, Jewish Antiquities 1.108.
19 Antonius Diogenes; John cites this work also in 4.42.
20 The 13-month calendar seems possibly to be a reflection of the frequent intercalary month of the pre-Julian Roman calendar, for which see Rüpke, The Roman Calendar from Numa to Constantine, pp. 69-85.
21 Cf. 1.16-17.
22 Presumably this is meant as a reference to the Egyptian calendar, with 5 (not 5 ¼) "epagomenal" days outside the regular months.
23 I.e., the ecliptic, as a circle that divides the spherical heavens in two; hence the signs are the constellations of the Zodiac.
24 Lit., "hiding / obscuring the others."
25 The bisextum was the leap-day added in the Julian calendar; see Bickerman, Chronology of the Ancient World, p. 47; Hannah, Greek and Roman Calendars, p. 118. In Latin, sextus means "sixth," and bis means "twice."
26 I.e., the number 6. Cf. 2.11.
27 These two actions (the Greek verbs are epibainô and kubernao) are taken from the imagery of sea travel: "having embarked" and therefore "standing on" the deck, the steersman guides the ship.
28 Chaldaean Oracles, fr. 216 Des Places (categorized as "dubious")—the last line is elsewhere cited as Orphic (fr. 353 Kern). Cf. also Lewy, Chaldaean Oracles, pp. 267-8.
29 The text here has two different words, epíbêtairoès and epíbêtai, which could each be woodenly rendered as "on-steppers" or (Lewy's translation) "bestriders" (based on the verb epibainô seen already in John's introductory
matter, Heavenly and Starry, and abysses.

For as mutable corporeality had been fused around the earth, in proportion to its weight, it was necessary for that which was going to be near it to have a share in every potentiality. Therefore, God fit around [the earth] the lunar sphere which partakes in every potentiality of the efficacious spheres, and set it near the perceptible universe as a guardian of the elements. Hence also the mystical discourse teaches that Hecate is four-headed, on account of the four elements; and the fire-breathing head of the horse is obviously to be referred to the sphere of fire; the [head] of the bull bellowing a certain daemonic bellow [refers] to the [sphere] of aer; the [head] of the water-snake, a bitter and unstable nature, [refers] to the [sphere] of water; and the [head] of the dog—punitive and vengeful—[refers] to the earth. For the same reason also the poets address her as Cerberus, that is, flesh-eating [kreòðoros]. So then, as the moon rules over the four elements, naturally the ancients dedicated the beginning of the year to both the lights together.

9. The festivals of sowing, those called Sementivae among the Romans—that is, "pertaining to sowing"—were not allotted a defined day, because not every occasion is fitting for the beginning of sowing; for it can either occur earlier on account of heavy rains, or later on account of their sluggishness. They were conducted over the course of two days—not one after the other, but with seven days intervening between them. On the first day, they would make sacrifices to Demeter, as to Earth who receives the fruits; and then, after seven days, to Korê, the guardian of the fruits—because all seeds sprout on the seventh day. Not only seeds, but also, among living creatures, birds observe the seventh-day principle in addition to the triad in their birth process—all but geese, and those noted by the natural [philosophers]. For on the third [day], the heart begins to move; on the seventh, the whole [animal begins] to be suffused with blood; on the 13th, the body is fully formed; on the 21st, the shell is broken [43] and [the animal begins] to emit a voice.

The power of the heptad, you see, is very great: For its number is unmingled and unmothered, neither generating nor being generated, like each of the numbers in the decad. Hence too the Pythagoreans dedicate the heptad to Athena; for by the cycle of the hebdomad all things are preserved immortally. And for this reason they call her "virgin daughter of a mighty

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30 Epithets of Aphrodite, conceived of here as primordial matter; cf. De Mensibus 2.11.
31 Hecate = the moon. For a four-fold Hecate, albeit with slightly different animal-associations, cf. Porphyry, On Abstinence 4.16, where Hecate is said to be called "horse, bull, lioness, and dog."
32 Gk. sêmantivai. See Scullard, Festivals and Ceremonies, p. 68; the movable festival is dealt with by Ovid, Fasti 1.657ff., that is, in connection with Jan. 24-26.
33 The term translated here as "fruit" [karpos] is broader than the English term: It can also mean "seeds" and "harvest" in general. Ovid speaks of offerings to Tellus (Earth) and Ceres; Warde Fowler, Roman Festivals, p. 294 n. 4, identifies John's reference to Demeter with Tellus, and Korê with Ceres.
34 Cf. 4.26.
35 Cf. Aristotle's account of the embryonic development of birds (Historia Animalium 6.3 [561a-562a]), which is more detailed but does not agree in all particulars with John's; cf. also John's further section on embryology in 4.26.
36 Cf. also John's discussion of the number seven at 2.12.
37 The "heptad" and the "hebdomad" are basically synonymous, but the latter is frequently used to denote the week (as a sequence of seven days). The significance of the seven-day period is frequently discussed in this kind of numerical exploration, as is the seven-year period; but the reference to immortality here seems to indicate celestial phenomena, perhaps the set of seven heavenly bodies.
father.---because it is the progeny of the monad which alone encompasses and gives subsistence to all things; for the monad is the cause of all things.

And it is also called decision because by this number all things receive their transition to what is different, which is clear from the general human lifetime. For in the 63rd year—and [this] comprises seven sets of nine—one's coming-to-be is decided, with the conjunction of the soul-controlling [number], which is seven, and the body-forming [number], which is nine.

10. Numa, on all occasions honoring odd numbers, but not even numbers, disposed the festivals of the month in triple fashion. For the tripod is the special possession of Apollo—indeed, [44] it is the image of the monad. In this way too he arranged the festivals of the month. For as the courses of the moon are said to be three—quick, middle, and relaxed—(because of which the poets call Hecate, that is, Selene, "Trioditis"), he divided the month with three festivals. For Selene has three forms; how [this is], one should know from the oracle. It says the following:

Here I am, the maiden of many appearances, who walks the heavens, bull-faced, three-headed, ungentle, endowed with golden darts, Phoebe, unknowing of craft, giving light to mortals, Eilithyia, bearing the three-fold tokens of three-ranked nature.

For it makes a quicker journey, as Aristotle says, near the winter solstice, a slower one near the summer [solstice], and an even one near the equinox.

The first festival of the month, then, is the one called "Kalends" among the Romans, and "New-Moon" among the Greeks. [45] And the Athenians call the first [day] of the month "new," the last day, "old." And the ancients called them "Kalends," on the basis of a Greek signification—from the fact that the chief priest summoned the Council in the so-called Curia Calabra, and indicated whether they should celebrate the festival of the Nones (from which point they would observe the mid-moon) on the fifth or on [the day of] the half-moon. For in the case of the months which even now still preserve the lunar festivals he would indicate the Nones on the fifth; in accordance with this, on the 13th day (plus a certain fraction)

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38 Gk. parthenos obrimopatra.
39 Gk. krisis, from the same root as the verb krinein ("to judge / decide").
40 This expression appears to be simply a way of saying that 63 years is a "crisis point" (cf. the previous note) in one's earthly existence ("coming-to-be" translates Gk. genesis). Note that as Censorinus, De die natali 14.15, reports, some considered the 63rd year the most dangerous of such moments.
41 Cf. 2.7.
42 This seems to be a reference to minimum, mean, and maximum apparent speed of the moon's apparent movement with respect to the fixed stars. Cf. Geminus, Meteorologica 3.5 [377a24] (cited by Wuensch), explaining the sun rather than the moon. If this is the intended reference, John's statement is not about apparent velocity, but simply about how long the moon is in the sky at the different times of year.
43 Cf. Meteorologica 3.5 [377a24] (cited by Wuensch), explaining the sun rather than the moon. If this is the intended reference, John's statement is not about apparent velocity, but simply about how long the moon is in the sky at the different times of year.
44 These are the first four lines of an oracle of Hecate quoted from Porphyry (fr. 328 Smith; Wolff, p. 151) by Eusebius, PE 4.23. In the lines not included here, the oracle specifies the significance of "three-ranked nature" in the elements of aether, aer, and earth.
45 Cf. Meteorologica 3.5 [377a24] (cited by Wuensch), explaining the sun rather than the moon. If this is the intended reference, John's statement is not about apparent velocity, but simply about how long the moon is in the sky at the different times of year.
46 The so-called "Curia Calabra."
47 That is, those months which had 29 days (or 28, in the case of February) prior to the Julian reform.
the moon's corporeal mid-point naturally occurs.\textsuperscript{48} For the number 13 is composed of the first two squares—four and nine, even and odd, the even having sides of \textit{two} (the form of matter), the odd [having sides] of \textit{three} (the efficacious form). So then, this number was the greatest and most complete observation among the festivals for the ancients. For the 15\textsuperscript{th} (minus 6 parts)\textsuperscript{49} is, properly speaking, the mid-moon. For it is the mid-point of its light. Hence they customarily treated it as a festival of Zeus, as \textit{the sun}, by means of which, we agree, the moon shines. But in the case of the solar months, [46] they would indicate the Nones on the seventh. For seven is the sun's number, as was stated earlier. For it is clear that the shortest cycle of the moon consists of 27 days and a few hours, while that of its \textit{light} is close to 30 days, just as the middle point of the moon's corporeal return is the 13\textsuperscript{th}, while that of its \textit{light} is the mid-moon, or the 15\textsuperscript{th}.

The "New-Moon," then, is the first, on which [day] the Romans customarily announced beforehand the second festival, that is, the Nones. From the New-Moon to the Nones there are either four or six intermediate days, so that all together, including the New-Moon itself, it comes to five or seven [days]. So then, if one reckons \textit{nine} further days from the fifth—and this addition is called "Nones" among the Romans, meaning "nine"; for that is how many [days] there are—one will come to the mid-point of the "return" within the short lunar [cycle], that is, the 13th. And thus too, in the case of the [Nones on the] seventh, by counting the nine [days] in addition to it, one will come to the mid-moon of the \textit{light}, that is, the 15th.

They held the Nones to be entirely unlucky [days],\textsuperscript{50} now on the basis of the fifth day, now on the basis of the half-[moon], not allowing either the former or the latter term to be used, but [only] the mid-moon coming [47] after nine days—that is, the Ides; or even in another way honoring [them] on account of their observation of the lights.\textsuperscript{51}

And one can understand that the word "Kalends" arises from a Greek signification on the basis of the written form itself—for even to this day the Romans write "Kalends" with the Greek \textit{kappa}.

And you should know that the Kalends were in fact a festival of Hera,\textsuperscript{52} that is, of Selene. For the natural philosophers, as I said earlier,\textsuperscript{53} considered Helios to be Zeus, and Selene to be Hera—and they dedicated the new moon to her, and the Ides (that is, the mid-moon) to Zeus, or Helios, calling the Ides \textit{plenilunium}, meaning "full-moon." But the word "Ides" we find was applied by the civic [officials]\textsuperscript{54} on the basis of the appearance [\textit{eidos}] of the moon, by the priests on the basis of a certain manner of sacrifice which was called \textit{eidoulis}.\textsuperscript{55} And they would announce the Nones either as the fifth or the seventh [day] after the Kalends, because both numbers especially pertain to the \textit{lights}.

\textsuperscript{48} The "corporeal" mid-point is halfway through the moon's \textit{sidereal period} (27.3 days), as it is the more absolute position of the moon that is in question; references to the mid-point "of its light" (i.e., of the phases) relate to the \textit{synodic period} (29.5 days).

\textsuperscript{49} 6 "parts" appears to mean \textit{6 hours}, so that this would make 14 ¾ days the mid-point of the cycle.

\textsuperscript{50} Gk. \textit{apophras}, presumably corresponding to Lat. \textit{nefastus}. Only some months' Nones, however, were officially classified as \textit{nefastus}. Roether cites Suetonius, \textit{Augustus} 92, for an example of the perceived unlucky quality of the Nones (although the implication there is that this was a \textit{private} superstition); and Macrobius' statement (\textit{Saturnalia} 1.15.21) that marriages were not to be contracted on the Nones (or the Kalends or the Ides). For further discussion of days informally considered unlucky, cf. Michels, \textit{The Calendar of the Roman Republic}, pp. 62-8.

\textsuperscript{51} The sentence is obscure; it may be that something has dropped out in transmission.

\textsuperscript{52} Cf. Ovid, \textit{Fasti} 1.55-56.

\textsuperscript{53} Not in the attested text, but cf. 4.3.

\textsuperscript{54} Gk. \textit{politikoi}.

\textsuperscript{55} Cf. Macrobius, \textit{Saturnalia} 1.15.16 for both explanations here.
Labeo\textsuperscript{56} says that January and February, April and June, Sextilis \[and\] September \[48\] were allotted 29 days in ancient times, while March and May, Quintilis and October \[were allotted\] 31—and hence, those containing 29 days, as pertaining to the moon, had the Nones on the 5\textsuperscript{th}, while those \[containing\] 31 \[days\], as pertaining to the sun, \[had the Nones\] on the 7\textsuperscript{th}. And \[he says\] the Tuscans intentionally cut February short, because it had been clearly given over to the festivals of those under the earth by Numa the priest; and it was not lawful for it to be honored on an equal footing with the heavenly \[beings\]—instead, the \[month\] set apart for the chthonic \[beings\] who reduce everything was made smaller.\textsuperscript{57} For the same reason, whereas all the \[other\] months contain an odd number \[of days\], February alone clearly was allotted an unequal \[number\]\textsuperscript{58}—this \[kind of\] number belongs to matter, and on account of it the Romans declare nefas\textsuperscript{59} the dyadic number \[i.e., 2\] in relation to festivals: In their ancestral language they call it \textit{secundus}, that is, "fortunate,"\textsuperscript{60} by way of euphemism, like "Eumenides"\textsuperscript{61} and "Adrasteia"\textsuperscript{62} and "Parcae"—in their terms \[meaning\] the \textit{Moirai}, who "spare" no one.\textsuperscript{63}

And from the Nones themselves, too, until the Ides themselves, they would observe only nine intermediate \[days]\textsuperscript{64} because the number nine is most fitting and connected to the moon. For this \[number\] generates itself, according to Xenocrates.\textsuperscript{65} For the progression \[of numbers\] as far as the \textit{ennead} is unbounded,\textsuperscript{66} and associated with plurality.\textsuperscript{67}

So then, they called the new-moon "Kalends," and the second \[day\] of the month "four \[days\]" or "six \[days\] before the Nones, \[49\] as has been said—and let the pattern be as when the Nones are on the fifth—and the third \[of the month\] "three \[days\] before the Nones"; the fourth \[of the month], "one \[day\] before"\textsuperscript{68} the Nones" (on account of the fact that the number two is considered nefas); the fifth, "the Nones"; the sixth, "eight \[days\] before the Ides"; the seventh, "seven \[days\] before the Ides"; the eighth, "six \[days\] before the Ides"; the ninth, "five \[days\] before the Ides"; the 10\textsuperscript{th}, "four \[days\] before the Ides"; the 11\textsuperscript{th}, "three \[days\] before the Ides"; the 12\textsuperscript{th}, "one \[day\] before the Ides"; the 13\textsuperscript{th}, "the Ides." The 14\textsuperscript{th}—if the Nones were on the fifth and the month \[had\] 30 days, \[they called it] "18 \[days\] before the Kalends" of the following month; but if the Nones \[were\] on the fifth and the month \[had\] 31 days, "19 \[days\] before the Kalends," in similar fashion; and if the Nones \[were\] on the seventh and the month \[had\] 31 days, \[they called\] the 15\textsuperscript{th} "17 \[days\] before the Kalends," in similar fashion. But in the case of February alone, \[they called\] the 14\textsuperscript{th} "16 \[days\] before the Kalends of March"—and so on, in keeping with the succession of the numbers \[before\] the Kalends. But whenever there

\textsuperscript{56} Fr. 6 Mastandrea.
\textsuperscript{57} Cf. 4.25 (where it is Numa who shortens February for this reason).
\textsuperscript{58} Gk. \textit{anisos}. In this context, this word seems to be functioning as a synonym of "even"
\textsuperscript{59} That is, "taboo / unspeakable"; Gk. \textit{apophrazontai}. For the aversion to the number two, attributed to Numa, see 2.7.
\textsuperscript{60} In fact, the generic meaning "favorable" is a metaphorical extension of the basic meaning, "following."
\textsuperscript{61} The Furies.
\textsuperscript{62} Nemesis.
\textsuperscript{63} Cf. the Lat. verb \textit{parcere}, "to spare."
\textsuperscript{64} I.e., counting inclusively.
\textsuperscript{65} Fr. 58 Heinze. Cf. Huffman, \textit{Philolaus of Croton}, p. 370.
\textsuperscript{66} Gk. \textit{aoristos}.
\textsuperscript{67} Cf. Ps.-Iamblichus, who describes the progression to nine as "natural" (p. 105), then goes on to describe the number 10 functioning as "boundary" and "measure" of the "unbounded multitude" of number, the point at which numbers begin to recur cyclically (pp. 109-110). Cf. also John's discussions of the \textit{decad} at 1.15; 3.4.
\textsuperscript{68} Gk. \textit{pro mias}, reflecting Lat. \textit{pridie} (which does not technically have the number 'one' in it—but neither does it use the number two).
is a *bissextum*, they would call the 25th and the 26th "six [days] before the Kalends of March," as has been stated. March, May, July, [and] October have the Nones on the seventh; all the others [have it] on the fifth. But Caesar saw fit—even after his *solar* apportionment of the months—to leave in place the months' lunar festivals.

So much for the apparent anomaly of the months which have the Nones on the fifth and the seventh.

11. Among the ancients, the new-moon was celebrated as a festival [50] in honor of Hera, who is Selene; the Nones in the name <of Zeus>,”69 and the Ides again in the name <of Zeus>. Both the Romans and the Greeks called the first [day] of the moon the “new-moon” [neomênia] and celebrated a festival in its honor—but it was not neglected among the Hebrews either, as the lyric poet says: "Sound the trumpet in the new-moon."70 It is not at all difficult to say briefly, on the basis of the statements of the ancients, what the new-moon is and for what reason the power of the new-moon is manifestly honored among all [peoples]—since, to tell the truth, it is observed in the nature of things. As witness of this is Antigonus,71 who alleges that ants rest on the new-moons, and so it is impossible to see an ant working on the new-moons, as Archelaus has also stated.72 And the very word "new-moon" is honored, as I have said, as a cause of the renewal of the entire perceptible universe. For as all things in [the realm of] sense-perception are in fact in process of growing and diminishing, the nature of the moon, holding together73 [51] the entire [realm of] sense-perception, has in a certain way been stamped [on things] by the Creator [dêmiourgos]. And this is clear from the nature of water and the creatures that [live] in it. For when the moon is growing larger, the things under it [i.e., sublunar things] grow; then, when it draws together, they [also] cease and contract into themselves.74

And the Egyptians were pleased to honor the ibis and the ape75 for this reason too; for it has also been inferred that both animals are in sympathy with the moon.76 The ibis corresponds to it in its form—being darker at the extremities, but white in its mid-section, just like the moon high up in the sky.77 For when there is no moon visible in the heavens, neither can the ibises see—they have their eyes closed during this time and persevere, without food, in waiting for the element that is akin to them. The ape, on the other hand, shows more obvious manifestations: When the light of the moon waxes, their eye-circles widen, but when it wanes, the circumference of the eyes contracts. Some say (and among them is Dercyllus)78 that in the Hydaspes river a stone called *lychnis* ["lamp"] is generated.79 This emits a melodious sound [52] when the moon

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69 This is the only attestation for the Nones' being dedicated to a certain divinity.
70 Ps. 80.3.
71 *Collection of Amazing Stories* 126b [140].
72 The Archelaus in question is variously termed Archelaus "of Egypt" or "of the Chersonese." This statement is not included in editions of Archelaus' fragments.
73 Or, "encompassing."
74 John cross-references this section in *De ostentis* 7. For further discussion about these ideas in ancient authors, see A. Pérez Jiménez, "Plutarch's Attitude toward Astral Biology," in L. Roig Lanzillotta and I. Muñoz Gallarte (eds.), *Plutarch in the Religious and Philosophical Discourse of Late Antiquity* (Leiden, 2012), pp. 159-69. Further parallels are to be noted also in Anastasius Sinaita, *In Hexaemeron* 4.7.6 [p. 124 Kuehn-Baggarly]; cf. Cumont, p. 33.
75 Gk. *kerkôps*.
76 The section on these animals has a near-verbatim parallel at 4.76.
77 Gk. *aitherios*.
78 Fr. 11 Müller (*FHG* 4: 388-9).
79 Perhaps a ruby (LSJ; adopted by Kuehn-Baggarly in their translation of Anastasius).
is growing. Furthermore, in the Araris river in the Celtic [territory]—and or rather <in the Aesarus> of Sybaris—a fish is produced, and the locals call it klopias. This [fish], they say, whitens as the moon grows, but darkens again when its light is lessened. Callisthenes the Sybarite reports this. But also, Archelaus says that the livers of mice have 15 lobes, which do not come into existence all together, but rather, each one comes into being from nothing and is added [to the whole] on each successive lunar day, from the new-moon until the full-moon—and then again, one by one, day by day, lobes waste away, from the full-moon until the new-moon, [when] they are all gone. And from that [day], they begin [53] to appear once again, in relation to the cycle of the moon and the number of its days—[the lobes] themselves indeed appearing and disappearing, filling out and diminishing. And the same historian says that the eggs of sea urchins go through the same thing.

12. Now then, Anaximenes asserts that the circle of the moon is 19 times that of the earth—full of fire just like <that> of the sun. Xenophanes [says] that it is an inflamed cloud; the Stoics, [that it is] a mixture of fire and aer; Plato, [that it is] of fiery [substance] for the most part; Anaxagoras and Democritus, [that it is] a very hot solid body, having within itself plains and mountains and ravines; Heraclitus, [that it is] earth surrounded by mist; Pythagoras, however, [says that it is] a fiery mass.

But concerning the light connected with it, I will say that Anaximander asserts that it has its own light, but somewhat thinner [than the sun's], whereas Antiphon says that the moon does shine with its own luster, but that the [light] around it is hidden and dimmed by the impact of the sun's [light], since the stronger light naturally obscures the weaker—as also happens [54] to the other "stars." Thales, on the other hand, and his followers accepted [the idea] that the moon is illuminated by the sun. Yet Heraclitus says that the sun and the moon experience the same thing: being hollow in their shapes, they are illuminated on account of the moist exhalation so as to be visible, but the sun [is] brighter because it appears in pure aer.

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80 I.e., in Gaul.
81 Ps.-Plutarch, De fluviis 6.2, gives a very similar report about this fish (called kloupaia or skolopias), citing Callisthenes of Sybaris' Galatikas as his source (FGrHist 291). Nothing about Sybaris as a possible location for this fish appears in Ps.-Plutarch, however.
82 Archelaus, fr. 3 Giannini (= Westermann, Paradoxographi Graeci p. 160: Archelaus fr. 10); cf. Pliny, NH 2.109; 11.196. For discussion, see Leigh, From Polypragmon to Curiosus, p. 190 n. 189. Dubuisson-Schamp, 1: lxxxi, translate "mussels" rather than "mice," presumably because of the reference to "sea creatures" at De ost. 7; but the Latin parallels include reference to the sorex ("shrew-mouse"), which could not be so interpreted.
83 Archelaus fr. 8 Giannini (included in fr. 10 Westermann). Cf. Antigonus, Collection of Amazing Stories 124b [137]. Giannini suggests that the implied attribution to Archelaus is confused.
84 The attribution ought to be to Anaximander. The views reported in this section (as far as the reference to Eratosthenes) find near-verbatim parallels in Ps.-Plutarch, Placita 2.25, 28, 31 (based on Aëtius' Placita); cf. Diels, Doxographi Graeci, pp. 355-59, 362-3.
85 Ps.-Plutarch here reads pepilêmenon ("compressed") rather than John's pepurômenon ("inflamed").
86 Ps.-Plutarch here reads katoptroëides ("mirror-like") rather than puroëides ("fiery").
87 Cumont, p. 35, found supplementary text (without parallel in Ps.-Plutarch) at this point in a series of apparent excerpts from De mens. in cod. Angelicus 29 f. 268: "Apollonius says that the moon makes its return in 29 days and 12 ½ hours; Hermes, in 29 [and] a half [and] a third [and] a thirtieth"—the latter is probably meant as 29 ½ + 1/33, as in Geminius, 8.2.
88 Lit., "bowl-shaped."
89 Here Cumont finds additional wording (parallelling Ps.-Plutarch) in his ms.: "whereas the moon [appears] in thicker [air]."
It is said that according to Eratosthenes, the sun is 780,000 stades away from the earth, the sun 4,080,000 [stades away]. For the moon, occupying the seventh "zone," is closer to the earth than the other "stars." Hence, they say that it is not unmixed compacted aether, like the other "stars," but a mixture of aetherial and aerial substance. That [part] of it which appears dark, you see, which some call a face, is nothing else but the mixed-in aer, which, being dark by nature, extends as far as it [i.e., the moon]. And it is right not to overlook that. The new-moon is called the "head of the month" by the ancients. And they bring in ten "forms" [i.e., phases] of the moon, out of which the 30-day cycle is completed; and they are: "conjunction" [i.e., new moon], "rising," "moon-shaped" [i.e., crescent], "half" [i.e., quarter], "doubly convex" [i.e., gibbous], "full"—and again [55] "half," again "doubly convex," again "moon-shaped," again "conjunction." But others assert that there are 11 forms; for after "conjunction" they reckon also "coming forth," when the moon stands one degree away from the sun.

13. Now then, as I said, the Romans honored the Kalends as the new-moon, and after these in sequence the Nones, and in third ranks the Ides. For the power of Hecate, that is, Selene, is tri-form. For what Apollo is in the sun, Hecate is in the moon.

14. The number 30 is most connected to nature—for what the triad is in monads, this the triacontad [30] is in decades [10s]—because, too, the cycle of the month is composed of the four squares in sequence from the monad: 1, 4, 9, 16. Hence Heraclitus is not off the mark in calling the month "generation" [genea].

15. After the Kalends, we find that time is differentiated in many ways—into "ages," into "time," into "occasion," into "year." Now then, "age" is a certain indefinite cycling-around of the heavenly bodies, or a complete revolution of the entire heavens. "Time" is indeterminate extension from "age"—thus too Cronus is said [to be] the child of Heaven; for time [chronos] proceeds out of the movement of the heavens. And so, "occasion" is an example of time, and not time itself.

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90 Here too Cumont finds supplementary text: "This too is worth asking: For what reason the moon comes to be invisible to us in conjunction [i.e., when the moon would appear nearest to the sun—at the new moon]. Presumably on account of the fact that, being a sphere and having been illuminated by the sphere of the sun, it is not illuminated in its entire spherical body by the sun during its conjunctive cycles. Most likely, then, it is this sort of physical arrangement that renders the moon unilluminated and invisible to us."

91 In the second half of the cycle, "half" and "doubly convex" are in the wrong order, as this should be a mirror image of the first half.

92 Gk. moi condemnation.

93 For the list of phases, cf. Paul of Alexandria, *Elementa apotelesmatica* 16 [p. 33 Boer], who also reports that some define 10 phases, others 11; but the distinction depends on the addition (or omission) of a phase close to full, plēsihipaēs ("full-light"), rather than that of genna ("coming forth") as John alleges—he does, like John, define genna by reference to the moon's standing one degree away from the sun. Paul includes all John's named phases in both versions, but does not count the return to "conjunction" as a final phase.

94 Gk. physikōtatos.

95 I.e., 30 is to 10 as 3 is to 1.

96 22A19 Diels-Kranz.

97 Gk. kairos.
16. The greatest "return / restoration" [apokatastasis] differs from a "complete circuit" [teleia periodos] in that the "restoration" comes to be from the same sign [56] to the same sign,\(^9\) in accord with length and breadth and depth,\(^9\) while the "complete circuit" is accomplished on the basis of the gathering of the "terms."\(^10\) For the ancients say that there are three "circuits" of the planets: greatest, smallest, [and] middling.\(^11\) The greatest [circuit] of Cronus [i.e., Saturn] [lasts] 57 years; that of Zeus [i.e., Jupiter], 79 [years]; but [that] of Ares [i.e., Mars], 66—and hence Caesar secured for himself / won over that many thousands of men (since he was most experienced in this field too) both in the civil [war] and in the other wars—and naturally, he prevailed; that of Helios [i.e., the sun], 120 [years]—for which reason, it is impossible for a human life to last longer than that number of years; that of Aphrodite [i.e., Venus], 82; that of Selene [i.e., the moon], 108. The smallest [circuit] of Cronus [lasts] <30> [years]; that of Zeus, 12; that of Ares, 15—on account of which, the Romans set the cycle of the so-called "indiction"\(^102\) at this number; that of Helios, 19; that of Aphrodite, 8; that of Hermes [i.e., Mercury], 20; and that of Selene, 25. The middling [circuit] of Cronus [lasts] 43 \(\frac{1}{2}\); that of Zeus, <45 \(\frac{1}{2}\)>; that of Ares, 40 \(\frac{1}{2}\); that of Helios, 69 \(\frac{1}{2}\); that of Aphrodite, 45; that of Selene, 66 \(\frac{1}{2}\). Such are the extents of the greatest and smallest and middling circuits. But the "complete restorations" of the planets are as follows. Cronus accomplishes its restoration in 265 years [57]; Zeus, in 427; Ares, in 294;\(^103\) Helios, in 1,461; Aphrodite, in 1,151; Hermes, in 480; Selene, in 25. But the restoration of the universe takes place after 1,753,200 years,\(^104\) and at that time, there arises a conjunction of all the stars,\(^105\) either in the 30th degree of Cancer or in the 1st [degree] of Leo. In the case of Cancer, a flood would occur, but in the case of Leo, a conflagration\(^106\)—not, however, a universal one, as the Stoics allege, but certainly a partial one. For they suppose that the whole perceptible universe is in subjection to those sorts of conditions, and they deem it right to offer this sort of reason; and the universe (they say), in the course of boundless time, either is dried out by the conflagrations of the luminaries in the heavens or is liquefied by the deluges of water and falls apart on account of the onslaught of moisture and is dissolved and loses its

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\(^9\) Gk. sêmeion, here presumably understood as a reference to one of the constellations of the Zodiac.

\(^9\) I.e., celestial position (longitude and latitude)—but "depth" is an addition here, by comparison with Nemesius' report of Stoic views (On the Nature of Man 38 = SVF 2: 190 [no. 625]).

\(^10\) "Terms" refers to astrological subdivisions of a Zodiac sign (cf. LSJ s.v. ὅριον [2]), that is, the degrees within a particular sign that are associated with the influence of a particular planet (separate from the planetary associations with the signs more broadly). As Neugebauer, History of Ancient Mathematical Astronomy, vol. 2, p. 606, notes, the figures given for the "greatest" circuits are the totals of the "terms" associated with each planet, but they were also astrologically interpreted as the years of one's lifespan; the "middling" circuits are simply arithmetic means.

\(^11\) For the numerical values John gives here, as well as their background in Babylonian astronomy for the most part, see Neugebauer, pp. 604-7. The "smallest" circuits are based on the sidereal period (for the outer planets); for Helios, 19 years seems to be the "Metonic" cycle correlating solar years with lunar months; for Selene, 25 years would correspond to the Egyptian luni-solar cycle (Neugebauer, p. 564) correlating lunar months with the Egyptian 365-day year.

\(^102\) Gk. epinemêsis. Cf. 3.22; 4.111, 124.

\(^103\) According to Neugebauer's comparisons (p. 605), this should be 284.

\(^104\) This figure is produced by multiplying 1200 (a common multiple of the afore-mentioned "smallest circuits" of the planets and 25, associated with the moon) by the number 1461 (cited above as the "complete restoration" of Helios, that is, the number of years which the Egyptian year would take to return to exactly the same starting point—the "Sothic" cycle). See Neugebauer, p. 606.

\(^105\) I.e., the planets, moon and sun.

\(^106\) For the calculations and the features of the apokatastasis, John seems to be closely following Antiochus of Athens (CCAG 1: 163 [http://www.hellenisticastrology.com/ccag/CCAG01.pdf]). As John implies, the idea that the universe was periodically destroyed / restored in these ways was a familiar doctrine of Stoic philosophy.
solidity. For this very reason, it is necessary for Providence to be adapted to both [eventualities], and, like a farmer, at one time with fire to evoke the heat that is in the depth of nature, and at another time with water to drench the rarefied dryness of the earth.

17. The Greeks reckoned the beginning of the year from the 25th of December, or the solstice, whereas the Romans reckoned it eight days later, on the first of January. The Greeks did so by way of observing the solstice itself, the Romans, waiting for when the shadow of the sundial would begin to shrink. For until the eight days were over, the shrinkage of the shadow is imperceptible.

18. On account of "coming-to-be," the movement of the heavenly [bodies] is double. For if the circular motion which the fixed sky goes through were simple, as it embraced everything and whirled everything around, nothing would have been brought forth from it [i.e., the motion]—for what apart from itself could be produced from the simple movement? But because many diverse motions are caused, in opposition to that single circular motion, all coming-to-be is brought forth from them. For thus says Aristotle, in the second [book] On Coming-to-be and Destruction:

If there were only the one motion, the two—the coming-to-be and the destruction—could not both occur, because they are opposites. The same thing, you see, continuing in the same condition, naturally always produces the same result. Thus, there would be either coming-to-be or destruction, continually. But the movements must be multiple and opposite, either through the motion [itself] or through its irregularity. For opposites are the cause of opposites. Hence, the first motion is not the cause of coming-to-be and destruction, but rather the [motion] on the crosswise circle [is]; for in this are contained both continuity and two kinds of movement.

19. The fixed sky, having been made wholly simple by the one who is beyond all things, according to the Oracle, embracing everything and whirling everything around, moves everything and causes everything to partake in itself, and is swifter than all movement, and always remains the same; and it gives existence to the whole perceptible universe, having no change and diversity at all.

20. That they honored the year as a god is clear on the basis of the royal city of the Lydians itself. For Xanthus calls it Sardin, and Xyarin; and if one calculates the numerical

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107 That is, like a farmer, Providence works with the capabilities of the materials at hand.
108 The Boeotian and Elean calendars began with the winter solstice (Hannah, Greek and Roman Calendars, pp. 38, 72-3. The Athenian calendar, however, began with the first new moon following the summer solstice. Cf. Samuel, Greek and Roman Chronology, p. 64.
109 2.10 [336a].
110 I.e., that of the sphere of fixed stars.
111 I.e., the ecliptic, on which the planets, sun and moon seem to move.
113 Possibly the latter should be restored to a nominative form Xyaris—but the form Sardin is needed for the numerical calculation to come out right. In any case, despite some skepticism, xyaris does appear to be a valid reflection of an early form of the city's name—see Gusmani, Lydisches Wörterbuch, p. 202; Zgusta, Kleinasiatische...
value of the name "Sardin," he will find altogether 365 units. Thus, it is clear from this that the city of Sardis was named in honor of Helios, who gathers the year together in that number of days. And it is generally conceded that even to this day the common people call the new year "new sardis." And there are those who say that in the ancient Lydian language the year is called sardis.

21. The Lydians interpret Pan as the nature of this whole universe [pan]: horned (from the moon), with a fiery face (from the aether), with a shaggy body (from the earth), and a rather poor form in other respects (on account of the irrational diversity of matter).

22. There are 12 months among all [peoples], but different nations name them differently. The Athenians indeed [name them] as follows: Elaphêbolôn, Mounychiôn, Thargêliôn, Skirophoriôn, Hekatombaiôn, Metageitniôn, Boêdromiôn, Pyanepsiôn, Maimaktêriôn, Poseideôn, Gamêliôn, Anâthestêriôn [60].

The Greeks, as follows: Gorpiaios, Hyperberetaios, Dios, Apellaios, Audonaios, Peritios, Dystros, Xanthikos, Artemisios, Daisios, Panemos, Lôos.

The Hebrews, as follows: Thesri, Marchesouvan, Chaseleth, Teveth, Saphat, Adar, Nisan, Iar, Sivan, Thamous, Aav, Eloul.

The Egyptians, as follows: Thôth, Phaôphi, Athyr, Choiak, Tybi, Mechir, Phamenôth, Pharmouthi, Pachôn, Pañi, Epiphi, Mesôri.

The Romans, as follows: September, October, November, December, January, February, March, April, May, June, July, August.

So much for the matter of the months among the [various] nations. But the Babylonians and the Egyptians defined the beginning of the year as the Spring equinox, adopting, as it were from a head, the equinox in Aries on account of the fact that all perceptible nature grows in the Spring. The Greek tradition made the first degree of Cancer—as one might say, the 23rd of June—the beginning of the year. But while these and all

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114 Or simply "the sun."

115 Or possibly "new sardin"—and similarly for the next occurrence of the word. In both sentences, the word is in the accusative case in Greek, so it cannot be determined with certainty whether John intends a corresponding nominative sardis to be assumed, as I have done; I imagine, however, that the place name Sardin is meant as a (nominative) form peculiar to Xanthus.

116 This has some potential basis in fact: Haas, p. 61, notes that sarad- is the Old Persian word meaning "year," although the Lydian word is quite different (borli- / brva-); cf. Gusmani, pp. 84-5, 277.

117 I.e., the diverse types of irrational matter.

118 Usually known as the Macedonian month names, these were still generally preserved in the Greek-speaking Eastern Roman empire, even as the Julian calendar's principles were adopted more widely (see Hannah, pp. 131-8).

119 Wuensch does not emend the names of the Hebrew months, and I have simply transliterated the transmitted Greek spellings here (using 'v' for beta).

120 The last-named is more usually spelled Mesorê in Greek.

121 Gk. trope; lit., "turn."

122 Gk. kephalê. Hephaestio, Apotelesmatica 1.1 (p. 3 Pingree) says that Aries was traditionally called the "head of the cosmos."
the other nations observed one single starting point of the year, the Romans [observed] three: one, "priestly," a second, "ancestral," and another [61], "cyclical and civic." The priestly [beginning] is in January, when the sun, passing Capricorn, causes an increase of the day. The ancestral [beginning] is what they call the first of the month of March—when it is the Roman custom even to this day to "shake the weapons." The "civic" or rather "cyclical" [beginning] is the first of the month of September, which the Greeks call "apportionment" [epinemêsis], but they themselves call "indiction." For indicio [is what] the Romans call the declaration of the yearly cycle in their ancestral language. Antiquity, you see, kept the cycle as the [period] they called a lustrum—that is, the period of five years—and there was a purification, and mysteries of the Mother were conducted at that time. Later on, however, they decided to renew their cycle after 15 years, in honor of Ares (and he was an ancestral god for the Romans, as they say). For the complete "restoration" of Ares [i.e., the planet Mars] is observed in two ways: a small one taking 15 [years] and a "middling" one taking 79. That the Romans held the beginning of the year in March as an ancestral tradition is clear also from the fact that those they called "matrons"—that is, the well-born—entertain the household slaves then, just as it was the custom for the property-owners to do this in the Cronia. The women serve the male household slaves, in honor of Ares, on account of their greater stature; the men, as it were offering an act of worship averting evil to Cronus [62], would serve their own slaves, so that they would not in reality suffer some sort of retribution and fall into enemy servitude.

23. The Greeks, however, named it "apportionment" on the basis of the facts. For when the sun has come to be in Libra, it shows the quality of the crops. And at that time, the ancients would with kindness allocate the tribute payments to the subjects—so that those subject to tribute would not seem to be impiously oppressed because of the increase of these [tribute-payments]. Quite logically, then, they called it "apportionment"—that is, a sort of distribution of tribute. For the exaction of tribute payments was not so inflexible—nor indeed [was it] a certain defined [amount], or rather one that increased little by little; rather, it was instituted in proportion to the necessity of the rulers, as needs cropped up. In this manner too, the Asians even to this day call the tribute payments "demands." Hence, when they allocated [payments] for the most part in peace-time and the tribute was afterward given back to the contributors, the results for the cities have been such marvellous things—I mean, baths and marketplaces and aqueducts—proclaiming the inhabitants' boundless good fortune.

123 Cf. 4.42.
124 For the "indiction" cycle, see Bickerman, Chronology of the Ancient World, pp. 78-79.
125 I.e., the Magna Mater.
126 Cf. 3.16—but the figure for the "middling" restoration does not agree. Some corruption has presumably occurred.
127 I.e., Saturnalia.
128 This is further explanation of the so-called "indiction": cf. the previous section.
129 Here the word for "tribute" is different: dasmoi rather than phoros/phoroi.