the Platonist and Pythagorean of the fourth century. Heracleides believed that κιθαρῳδία was the earlier form of music (*De mus.* 1131F–32A), apparently opposing the view of Glaukos of Rhegium that αὐλός music was earlier (*De mus.* 1132F);[37] he was interested in the Terpandrian νόμοι (*De mus.* 1132C = frag. 157 Wehrli), and discussed Philammon, to whom he attributed the establishment of choral dancing at Delphi (*De mus.* 1132A). Hence, Heracleides may be the authority cited by Ps. Plutarch (1133A–B) to the effect that some of the Terpandrian νόμοι were invented by Philammon, and thus for Proclus' belief that Terpandrian νόμος had its origins at Delphi.[38] Heracleides is thus a strong candidate, but it is impossible to be certain.

To conclude: the contrast attested in Proclus between νόμος and dithyramb seems to have superseded an earlier contrast between paean and dithyramb. This change can be understood as reflecting the belief that νόμος was preferable artistically, and a better symbol for Apollo. This change could be much older than Proclus. All the conditions for it were already around in the fourth century B.C.E. And I would suggest that the fourth century B.C.E.—when the νόμος and dithyramb were thriving genres of lyric poetry in Athens—is the period to which it can most reasonably be attributed.

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37. Felix Jacoby, *RE* 113.1419; Eduard Hiller, "Beiträge zur griechischen Litteraturgeschichte. 4," *RM* 41 (1886): 414ff. Glaukos also seems to have held that Thaletas of Gortyn adapted cretic-paeonic meter from the auletic νόμοι of Olympus of Lydia (*De mus.* 1134D), so that for him paean is derivative (partly) on νόμος, not νόμος on paean, as in Proclus.

38. Notice also frag. 158 Wehrli = Ath. 15.701E–F: the trimeter was invented when Apollo repeated ἰὴ παιάν thrice; cf. Terentianus Maurus, *De litteris syllabis metris* 159–94. There also seems to be a parallel between Proclus' account of the τριποδηφορικον (321B32ff.) and Heracleides, frag. 136 Wehrli.

COPTICA IN MARTIANUS CAPELLA *DE NUPTIIS* 2.193

In Philology's hymn to the Sun in Book 2 of Martianus Capella's *De Nuptiis Philologiae et Mercurii,* at section 193 occurs the line in which it is asserted of the divine sun that "octo et sescentis numeris,"[1] "your number is 608."[2] Premodern comments on this text attempted to explain the arcane numerology in various ways. Medieval explanations can be traced in the three commentaries on Martianus edited by C. E. Lutz. The earliest of the Carolingian commentators, Dunchad,[3] began the habit of going back to a somewhat garbled reminiscence of Macrobius' *Commentary on the Dream of Scipio* 2.3.3 with its strange form ⲚⲨⲤⲦⲎⲦ or ⲚⲎⲨⲤⲦⲎⲦ:[4] he added up

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1. Ed. James Alfred Willis (Leipzig, 1983), 53. Luciano Lenaz, *Martiani Capellae De nuptiis Philologiae et Mercurii liber secundus* (Padua, 1975), 162 prints Dick's (1925) "sexcentis".

2. Trans. W. H. Stahl and Richard Johnson, *Martianus Capella and the Seven Liberal Arts,* II: *The Marriage of Philology and Mercury* (New York, 1977), 59.

3. Ed. C. E. Lutz (Lancaster–Oxford, 1944), 9.

4. Compare the edition by J. A. Willis, vol. 2 (Leipzig, 1963), 104: apparently a distortion of Apollo's epithet Μουσηγέτης.

ⲧ = 300, ⲏ = 8, and again ⲧ = 300, the three letters he thought were the "litera trina" of *De nuptiis* 2.193, to get 608. Eriugena[5] preferred summing ⲏⲩⲥ in the form ⲏ = 8 + ⲩ = 400 + ⲥ = 200. Finally Remigius of Auxerre[6] both repeated the ⲧⲏⲧ = 300 + 8 + 300 pattern, and cited Eriugena's ⲏⲩⲥ = 8 + 400 + 200, ingeniously supposing that ⲏⲩⲥ represents the "cognomen" and ⲧⲏⲧ the "omen" of Martianus' "cognomen et omen" in the following line of 2.193. In the twelfth century Bernardus Silvestris (if the commentary's attribution is correct)[7] did not cover the text this far, and did not treat numerological matters.

Apparently even in Renaissance times Hugo Grotius' commentary of 1599 on this passage did not get beyond still further echoes of the same poorly understood bit of Macrobius. Early in the age of modern critical scholarship, however, things changed. On page 238 of his edition and commentary (published posthumously in Frankfurt a.M. in 1836),[8] the jurist and archivist Ulrich Friedrich Kopp castigated Grotius and other critics for being unaware of the true key to the puzzle. Kopp explained the number as the isopsephism for the Egyptian (that is to say, Coptic) ϥⲣⲏ, "the sun":[9] ϥ = 500, + ⲣ = 100, + ⲏ = 8. This interpretation has apparently been continuously accepted down to our own time.[10]

To support his view that the clue lies in using the Egyptian language to solve the numerology riddle, Kopp (ad loc.) added citations from his earlier study, a massive four-volume work entitled *Palaeographia Critica* published in Mannheim in 1829. Volumes III–IV of this work, devoted primarily to the reading of inscriptions on gems and on stone, bear the title *De difficultate interpretandi ea quae aut vitiose vel subobscure aut alienis a sermone literis sunt scripta.*[11] With regard to another mysterious Martianus puzzle, *De nuptiis* 7.729, Kopp had proposed explaining the number of Jupiter, 717, as ϥⲑⲏⲥ, a form of the god's name "Ptah" (conceived of as equivalent to Jupiter), giving ϥ= 500 + ⲑ= 9 + ⲏ= 8 + ⲥ= 200 = 717.[12] He was insistent on the importance of using the Egyptian language to understand written material that either originated in Egypt or had underlying it the use of Egyptian sources.[13]

What is of interest to Coptic specialists, yet unnoticed by any classicist of whose work I am aware, is the *form* of Kopp's word ϥⲣⲏ. ⲣⲏ is indeed the Coptic mascu-

5. Ed. C. E. Lutz (Cambridge, Mass., 1939), 72.

6. Ed. C. E. Lutz, vol. 1 (Leiden, 1962), 200–201.

7. Ed. H. J. Westra (Toronto, 1986), 17–22.

8. *Martiani Minei Felicis Capellae . . . De nuptiis Philologiae et Mercurii et de septem artibus liberalibus libri novem.* Ad codicum manuscriptorum fidem cum notis . . . Hug. Grotii . . . aliorumque . . . et commentario perpetuo edidit Ulricus Fridericus Kopp. I should like to state here that I am most grateful to the Library of Congress, whose collections hold both a copy of Kopp's Martianus edition of 1836 and his complete *Palaeographia* of 1829, both works not easy to find.

9. As in Lenaz, *De nuptiis liber secundus,* 60.

10. It is simply repeated by Lenaz, ibid., and by Stahl and Johnson, *Martianus Capella,* p. 59, n. 135. Stahl and Johnson further adduce the resemblance of ϥⲣⲏ to the Greek word φρῆν, Mind (in the Neoplatonic sense).

11. Volumes I–II were translated into English as *The Tachygraphy of the Ancients Explained and Illustrated* by J. Harland (London, 1844–45).

12. *Palaeographia* III, sec. 231, pp. 279–81. Kopp even criticizes earlier students of Coptic for getting this wrong! This is a departure from Remigius of Auxerre's Greek isopsephism of ⲏ ⲁⲣⲭⲏ = 8 + 1 + 100 + 600 + 8 = 717, taken from Macrobius (ed. Lutz, 2:179; cited by Stahl and Johnson, *Martianus Capella,* p. 275, n. 17).

13. So too in *Palaeographia* IV, sec. 588, pp. 1–2 ("Inscriptiones Aegyptiacae"), where he also reproves an earlier scholar for not properly understanding "sensum trium elementorum ϥⲣⲏ quae Solis imagini adscripta sunt." (Kopp cites this as well on p. 238 of his Martianus edition.)

line noun "sun."[14] In Kopp's theoretical reconstruction it is preceded by the Coptic masculine singular definite article. This article, to conform to the isopsephism, is in the aspirated form ⲫ–, rather than the unaspirated form ⲡ– .[15] This aspirated form ⲫ– is characteristic of the Bohairic dialect of Coptic, the dialect of the western Nile Delta marked by aspiration of /p/ to /ph/.[16] Though Bohairic later became the principal form of ecclesiastically-used Coptic after the Arab conquest of Egypt (particularly after the ninth century), it is attested as early as the fourth century.[17] Late fifth-century Bohairic, probably contemporary with Martianus,[18] is indeed found, for example in a biblical fragment in Heidelberg published by H. Quecke in *Orientalia* 43 (1974): 382–93.[19] If the currently accepted interpretation of the figure 608 is correct, it would mean that whatever Egyptian source Martianus was drawing upon had been composed in the Bohairic dialect of Coptic, a matter of some interest for linguistic and cultural history.

However, it may be objected that the Bohairic form may be an artifact of the period in which Kopp was working, an early period in which Bohairic, owing to its use in the church texts available to Westerners since they had been brought back by early travellers to Egypt, was far more familiar than the Sahidic that had been in use before ca. A.D. 900.[20] Who was Kopp, and how did he come to know Coptic, especially the comparatively good command of Coptic that he manifests?

Ulrich Friedrich Kopp (1762–1834) was for most of his life a legal counsellor and private secretary in the service of the Electors of the German state of Hesse-Kassel;[21] he always proudly signed himself "Hessus Casselanus." While he produced numerous works on local history and law, the great *Palaeographia* was a labor of love that he saw to having published toward the end of his life.[22] In his official position Kopp would have had the opportunity for contact with many noble collectors and travellers who possessed cabinets of antiquities. Clearly he was aware of the importance of living as he did at the time when Champollion (whom he quotes, for example, in *Palaeographia* III, sec. 170, p. 173) had used Coptic to unlock the hieroglyphics, a major cultural event for all of Europe. While he knew Athanasius Kircher's old-fashioned *Prodromus Coptus* of 1636,[23] Kopp displayed a wide-ranging

14. W. E. Crum, *A Coptic Dictionary* (Oxford, 1962), 287b.

15. Ibid. 258b.

16. Rodolphe Kasser, "Prolégomènes à un essai de classification systématique des dialectes et subdialectes coptes selon les critères de la phonétique," *Le Muséon* 93 (1980): 76, cf. idem, *Le Muséon* 94 (1981): 124–25.

17. In P. Bodmer III, containing the beginning of Genesis and the Gospel of John: ed. Rodolphe Kasser, CSCO 177–78 (Louvain, 1958); cf. Kasser, "Dialectes," p. 83, n. 8. By some contemporary scholars this early Bohairic is termed "B4": W.-P. Funk, "Dialects Wanting Homes: A Numerical Approach to the Early Varieties of Coptic," in Jacek Fisiak, ed., *Historical Dialectology: Regional and Social* (Berlin–New York, 1988), 149–92, here 156.

18. For the dating to the 470s–80s cf. Danuta Shanzer, *A Philosophical and Literary Commentary on Martianus Capella's "De Nuptiis Philologiae et Mercurii" Book 1* (Berkeley, 1986), 28.

19. Again Kasser, "Dialectes," p. 83, n. 8.

20. See R. S. Bagnall, *Egypt in Late Antiquity* (Princeton, 1993), 239.

21. *Chr. J. Jochers allgemeines Gelehrten-Lexicon, 7. Ergänzungsband: Nachträge* (Leipzig, 1897; reprint ed., Hildesheim, 1961), 707–8.

22. Likewise the Martianus edition was brought out posthumously by K. F. Herrmann, who contributed a preface; see W. H. Stahl, *Martianus Capella and the Seven Liberal Arts,* I: *The Quadrivium of Martianus Capella* (New York, 1971), 78. Apparently Kopp's library of books and MS reproductions was sold at Mannheim in 1846.

23. Cited, e.g., in *Palaeographia* III, sec. 179, p. 189.

knowledge of more correct and up-to-date works of Coptic philology and studies on Egypt, especially Paul Ernest Jablonski's (1693–1757) *Opuscula,*[24] and Barthelemy, Young, Ideler, Renaudot, and Kosegarten's *Prisca Aegyptiorum Literatura* published in Weimar in 1828. Sections 169–71 (pp. 172–76), 179–82 (pp. 189–94), and 184–85 (pp. 197–99) of *Palaeographia* III, in the chapter "De Scriptura," are particularly devoted to the Coptic language and its alphabet, and its importance for reading Egyptian monuments. Kopp was aware of such distinctively Egyptian matters of importance for decipherers as the system of dating by the Era of Diocletian.[25]

Kopp brought all this learning to bear on the Martianus passage under discussion in section 229 (pp. 278–79) of *Palaeographia* III (as he cites in his edition, p. 238). As follows:

> Multo facilius solvitur aenigma, quod precibus Philologiae ad solem . . . continetur his versibus: "Octo et sexcentis numeris cui litera trina / Conformat sacrum nomen." Licet enim Latine sol etiam tribus literis scribatur, iisdem tamen numerus ille nequaquam conficitur. Sed Aegyptiacum Solis nomen, quod haud pluribus literis scribitur: ⲫ (500) ⲣ (100) ⲏ (8) exactum dat numerum DCVIII. Quo patet Grotii hujus loci explicationem, quam diligenti indagatione se invenisse scribit, aenigma solvi posse voce vel ⲏⲩⲥ, vel ⲩⲏⲥ, prorsus rejiciendam esse. . . .

This fits in perfectly with his title's description of the problems posed by texts *alienis a sermone literis . . . scripta.* Further, it shows that a Greek isopsephism using a form from ⲏϫⲓⲟ– is not in question, since the three-letter nature of the symbol is stressed.[26] One really does come away with the impression that Kopp, proudly using the fashionable and effective new tool of Egyptian, has solved this problem in a radically new way.

Approaching from the other end, not the nineteenth century but rather late antiquity, the other question that must be asked is how Martianus Capella, working in late fifth-century Carthage, could have known Egyptian esoteric or Neoplatonic source material written in Coptic. If the Bohairic ⲫⲣⲏ was really in his mind when he wrote the Hymn to the Sun, and for that matter also a Bohairic form of an isopsephism of the divine name Ptah for the ruler of the gods, how did this material come to his hand?

Even in contemporary late antique scholarship there is a tendency to think of Latin-speaking, Vandal-ruled North Africa and Coptic- and Greek-speaking Byzantine-ruled Egypt as cut off from each other until Justinian's military reconquest of 533/34. When, in Justinian's reign, Dioscorus of Aphrodito in Egypt speaks of a bishop of the Pentapolis, the Pentapolis he means is a group of five Egyptian towns, not an ecclesiastical jurisdiction in Libya.[27] If Martianus discussed names of gods with an Egyptian informant, pagan or Christian, and moreover an informant coming from a society that was moving toward being bilingual in Greek and Coptic (more Sahidic than Bohairic, but the latter did exist, as demonstrated above), perhaps the informant

24. Posthumously published in Leiden in 1804. Jablonski was the last of the pre-Champollion students of Coptic some of whose observations still have value for Coptic etymology today.

25. *Palaeographia* III, sec. 180.

26. Stahl and Johnson translate "your three letters form the holy name and sign of Mind" (*Martianus Capella,* 59). Though ⲓⲁⲱ (cf. A.-J. Festugière, *La révélation d'Hermès Trismégiste* I [Paris, 1944], 299: prayer to the sun) is also three letters, the numerical values do not add up correctly.

27. *P.Cair.Masp.* II 67177.20: see L. S. B. MacCoull, *Dioscorus of Aphrodito* (Berkeley, 1988), 65.

passed on his term for "sun" in a form with the aspirated phi. In the case of the name Ptah, an aspirated form (ϥϴ–) seems to have been more widespread in Greek place-names in Egypt compounded with it (e.g., Κερκέφθα in *P. Oxy.* XVI 2017).[28] While it has been shown that early (pre-seventh-century) Bohairic did necessarily incorporate its characteristic aspirate signs,[29] Funk has more fully treated early Bohairic both in its historical context[30] and in its external form.[31] Martianus certainly could have encountered Bohairic Coptic both spoken and written.

Martianus certainly does display a good acquaintance with Egyptian material.[32] Perhaps the most famous illustrations of his reverence for Egyptian lore are, first, *De nuptiis* 2.102, Mercury's "true name" being the Egyptian Thoth, which was interpreted as early as Grotius' commentary as an isopsephism in the form ϴϢϒϴ;[33] and, second, 2.137, the description of written and carved hieroglyphics among the texts vomited up by Philology. While this writing system was largely obsolete by Martianus' time,[34] the notion of it remained emblematic of hidden knowledge.

In the same Book 2, one finds, at 2.178 (in the passage on Themis's tablet depicting an ibis), "ipsa vero ibis praenotatum gerit nomen mensis cuiusdam Memphitici." Since Cicero Latin speakers had been aware of the ibis as a symbol of the god Thoth and of the first month of the Egyptian calendar named Thoth.[35] In the prose introduction to Philology's hymn to the sun itself (2.183–84) we encounter the Egyptian solar boat with its iconography of the cat of Bast, the lion of the Herakleopolite nome, and the crocodile of Sobek (thought to be symbolic of the moon, the sun, and Saturn [Kronos/Time] respectively).[36] In Book 2 Martianus is assembling a wealth of Egyptian esoteric material to lend a solemn tone to his depiction of the wedding.

In any case, I believe that Martianus' use of the isopsephistic riddle to conceal the name of the Egyptian sun god, a name that would have been thought of as being even more arcane and holy because it was wrapped in the veil of the Egyptian language with all its freight of magical associations,[37] and a use, moreover, in a

28. Cited in Crum, *Dictionary,* 277a. (The root is from the verb ⲡⲱⲧϩ, to work by skill: hence the creator-god.)

29. Christian Cannuyer, "ⲕⲉⲡⲓⲧⲟ: héritier bohairique de Hw.t-k3-Pt?," *Zeitschrift für ägyptische Sprache* 112 (1985): 115–18.

30. Funk, "Dialects Wanting Homes," 149–56, 181.

31. W.-P. Funk, "Eine frühkoptische Ausgleichsorthographie für Unter- und Mittelägypten?" *Bull. Soc. Egyptol. de Genève* 4 (1980): 33–38. See also Ariel Shisha-Halevy, "Bohairic–Late Egyptian Diaglosses," in D. W. Young, ed., *Studies Presented to H. J. Polotsky* (Beacon Hill, 1981), 314–38.

32. Compare the passage on the geography of Egypt in *De nuptiis* 6.675–77, mostly on the Delta (cf. below).

33. I.e., 9 + 900 + 400 + 9 = 1218; Stahl and Johnson, *Martianus Capella,* 35 with n. 9 (including the reference to Stahl, *Quadrivium,* 36–37). No wonder Kopp found fault with Grotius: the earlier critic had gone part of the way with an interpretation from the Egyptian realm, but had not used the Egyptian language itself (as indeed he could not have done). See also Lenaz, *Liber secundus,* pp. 7–8, n. 14; p. 64, n. 219; pp. 179–80.

34. Lenaz, *Liber secundus,* 201, brings up Horapollon as perhaps Martianus' contemporary: the *locus classicus* for the preservation of this knowledge in late antiquity is *P.Cair.Masp.* III 67295, usually romantically interpreted (e.g., by Jean Maspero in *BIAO* 11 [1914]: 163–95) as the secret possession of crypto-pagans in a Christianized world. See Garth Fowden, *The Egyptian Hermes*[2] (Princeton, 1993), 184–85.

35. Willis, "*De nuptiis*", ad loc., 51; Lenaz, *Liber secundus,* 215 (cf. 213 on *De nuptiis* 2.175).

36. So Stahl and Johnson, *Martianus Capella,* 58 nn. 124–26; Lenaz, *Liber secundus,* 21–23 esp. p. 22, n. 54. The latter also links the crocodile to the sun because of its seventy-year lifespan being connected to the "solar" number seventy (according to Iamblichus).

37. Cf. Fowden, *Hermes,* 63–65.

verse section of his work that is constructed with special care and in high style, is significant for our knowledge of religious and cultural interconnections along the north coast of the African continent in the late fifth century. It may even reflect a use of the Bohairic dialect of Coptic, a dialect usually thought to have originated and been localized in the western Nile Delta area, for texts of a type termed "Hermetic,"[38] which were read and mined by an author employing the cultural furniture of the pagan-classical educational repertoire. Martianus wanted to show how the trained intellect became worthy to be joined to the sphere of Mind, attended by all the disciplines and passing through all the celestial spheres. He was aware of the power of the old Egyptian sun image even in his own time when Egypt had become a Christian land with its own Bohairic Coptic Psalter in which Ps 135:8a read ϕρн єγєρϣιϣι ντє πιєϙοογ: "the sun to rule the day."

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38. The literature on the divine sun in the Corpus Hermeticum is vast. For Egyptian names for Helios in the so-called "Tübingen Theosophy" see Fowden, *Hermes*, p. 181, n. 129.