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## **The Zodiac in Early Medieval Art: Migration of a Classical Motif Through Time and Space**

### **Abstract**

*Zodiac signs could be seen all across the ancient Roman Empire. Following the fall of its Western part, their images became sparse, only to reappear at the beginning of the 9<sup>th</sup> century. Due to its strong pagan connotations, Zodiac was not depicted in Christian art of the earlier periods; thus its emergence in visual cultures of Christian societies in the latter part of the Early Middle Ages seems perplexing. Considering that representations of the zodiac appear in both Byzantine and Carolingian cultures almost concurrently, this paper will explore possible ways that cross-cultural exchange affected their distinctive processes of appropriation of this Classical motif into ecclesiastical art.*

**Key words:** *Zodiac, Classical culture, appropriation, cross-cultural exchange, transmission of knowledge.*

Images of the Zodiac signs are highly recognizable in contemporary global visual culture. It would be safe to say that most people today are familiar with representations of the twelve signs. Yet, in the long history of the Zodiac, that had not always been the case.

The Zodiac as a concept was devised in the 5<sup>th</sup> century BCE. Since they developed from zodiacal constellations, images of the individual signs predate the invention of the Zodiac. Depictions of the Zodiac as a whole are not found before the Hellenistic period. However, the majority of the examples from Classical art are dated to the Roman Imperial age.

Representations of the Zodiac were truly ubiquitous in the visual culture of the Roman Empire. Rendered in various artistic media, they permeated different spheres of Roman life: Zodiac signs could be seen in public and private spaces, on devotional objects and on measuring devices, as a part of decoration of everyday items as well as of grand imperial monuments. Zodiac could be encountered across distant reaches of the ever-expanding Empire: from the deserts of Syria and Libya, through Iberian Peninsula, to British Isles, and many other regions of the Roman world.

Following the fall of the Western part of the Empire and with the rise of organized Christianity, images of the Zodiac became sparse. They were not to be seen in artistic production of Western Europe until the 9<sup>th</sup> century. Whilst many Classical motifs have been appropriated into Early Christian art, Zodiac was not one of them.<sup>1</sup> To a higher degree than perhaps any other ancient motif, Zodiac carried pagan associations; it was often depicted in the arts of various religious cults; it possessed imperial overtones, due to its representations on public monuments and coins; it also had magical connotations, as it was used in amulets and charms. But the most problematic aspect preventing the inclusion of the Zodiac into visual programmes of sacred art must have been its astrological meaning and application. Christian opposition towards magic and divination, and astrology in particular, was clearly expressed by many Church Fathers.<sup>2</sup> But the very fact that they continually tackled these issues in their writings is evidence of the persistence of these practices, alongside other written accounts and material evidence.<sup>3</sup>

For all the above-mentioned reasons, it seems understandable and almost self-evident why Zodiac was not depicted in Early Christian art.<sup>4</sup> How it

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1 In certain cases, it may be speculated that Zodiac was depicted on artwork made for Christian patrons, such as the lost manuscript of the famous Chronograph of 354, which could have had illustrations of the Zodiac signs, as some of its later copies do. M. R. Salzman, *On Roman Time: The Codex-Calendar of 354 and the Rhythms of Urban Life in Late Antiquity*, Berkeley 1990, 32. The original manuscript was made by a well-known calligrapher Filocalus for a Roman senator named Valetinus, both of whom were Christian. Another instance could be found in the mosaic floor with Zodiac signs discovered in the 5<sup>th</sup> century villa on Thessaloniki's Aioulou Street, whose owner must have been of high rank and quite possibly a Christian. The mosaic has been detached and transferred to the city's Museum of Byzantine Culture (BΨ 67). R. Hachlili, *Ancient Synagogues - Archaeology and Art: New Discoveries and Current Research*, Leiden 2013, 379. However, we do not have any evidence of the Zodiac being represented in ecclesiastical or devotional art of the Early Christian period.

2 For an overview and analysis of attitudes towards astrology expressed in patristic writing, see T. Hegedus, *Early Christianity and Ancient Astrology*, New York 2007.

3 This point has been emphasized by H. J. Klauck in his survey of astrological beliefs present in the time of Early Christianity, H. J. Klauck, *The Religious Context of Early Christianity: A Guide to Graeco-Roman Religions*, Edinburgh 2000, 249. As an evidence of such beliefs among Christians of that time, we can mention epitaphs of persons identified as Christian by other engravings on their tombs, which also state astrological signs of the deceased. J. McCaul, *Christian Epitaphs of the First Six Centuries*, Toronto 1869, 54-55. Papyri containing horoscopes of people who can be recognised as Christian by their names have been found in Egypt. R. S. Bagnall, *Egypt in the Late Antiquity*, Princeton 1993, 274. In the writings of Tertullian and Origen, we can learn about members of their congregations who practiced astrology, and Irenaeus and Hippolytus provide us with information on certain heretical groups which incorporated astrological beliefs into their teachings. Tertullianus, *De Idolatria*, 9,1, eds. J. H. Waszink and J. C. M. van Winden, Leiden 1987; Origen, *Homilies on Joshua*, 5, 6, trans. B. J. Bruce, Washington DC 2002; Irenaeus, *Against Heresies*, I, 15, 6; I, 24, 7, trans. A. Roberts and W. Rambaut, Buffalo NY 1885; Hippolytus, *Refutation of All Heresies*, 4.46-50, trans. J. H. MacMahon, Buffalo NY 1886.

4 The exclusion of Zodiac from Early Christian art was deemed as deliberate and not accidental by Thomas F. Matthews. He sees this absence as stemming mostly from the Zodiac's astrological associations and its incompatibility with Christian worldview. T. F. Matthews, *The Clash of Gods, A Reinterpretation of Early Christian Art*, Princeton 1993, 149.

eventually found its way into visual cultures of religiously more hegemonic Christian societies in the latter part of the Early Middle Ages is a more complex matter. Many factors need to be taken into consideration if we wish to gain insight into this phenomenon. Since images of the Zodiac emerge in both Carolingian and Byzantine cultures almost simultaneously, the possibility of their interconnectivity and interdependence in the process of appropriation of this motif also needs to be explored. To that end, the present paper will focus on the cross-cultural exchange between these two societies and its impact on the development and transmission of zodiacal imagery.

Considering that this motif was appropriated from Classical art, the status of the Classical tradition within both societies also needs to be taken into account. Even though many ancient texts were preserved and copied within the Eastern Roman Empire and thus salvaged for posterity, the role of Byzantium in the transmission of Classical culture is to a large extent downplayed or ignored in modern historiography. This issue has been emphasized in recent scholarship, but still needs to be considered within the study of visual imagery and its translation from Classical art.<sup>5</sup>

The Zodiac, in all its manifestations and uses, was strongly embedded in Classical culture. First conceived as an astronomical tool – as a coordinate system for determining positions of celestial bodies, the Zodiac also found application in time measuring and time keeping, as well as in agriculture and medicine. Invention of the Zodiac was also prerequisite for the emergence of horoscopic astrology – a form of divination in which predictions are made based on planetary positions for any given date. Knowledge and practice of all these disciplines remained, for the most part, uninterrupted in the Eastern Roman Empire.<sup>6</sup> On the other end, in Western Europe, some of them were only beginning to be rediscovered during the Early Middle Ages. Charlemagne's educational reforms led to a revival of Classical learning in the Frankish lands. Classical texts were being collected and copied as a part of an organized effort. Many of those texts made mention

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5 A. Cameron, *The Byzantines*, Malden 2006, 47; id. *Byzantine Matters*, Princeton 2014; E. Jeffreys, We need to talk about Byzantium: or, Byzantium, its reception of the classical world as discussed in current scholarship, and should classicists pay attention?, *Classical Receptions Journal* 6/1 (2014), 158-174; M. Mavroudi, Translations from Greek into Latin and Arabic during the Middle Ages: Searching for the Classical Tradition, *Speculum* 90/1 (2015), 28-59.

6 P. Magdalino, The Byzantine Reception of Classical Astrology, in: *Literacy, Education and Manuscript Tradition in Byzantium and Beyond*, eds. C. Holmes and J. Varing, Leiden 2002, 33-57, 34-9.

of the Zodiac. Descriptions and information regarding the circle of the twelve signs could be found in the works of Cicero, Vitruvius, Pliny, and late antique compilers and commentators such as Calcidius, Martianus Capella, and Macrobius.<sup>7</sup> Knowledge of the Zodiac was also transmitted through early medieval authorities, such as Isidore of Seville and Venerable Bede.<sup>8</sup> Copies and excerpts of their works were often illustrated with diagrams. Some of those diagrams include the signs of the Zodiac, but mostly in their written form.

In the manuscript containing Isidore of Seville's *De natura rerum*, now kept in Basel, we find an exception to the rule. On fol. 23r, Zodiac signs are depicted within a circular diagram. They are considered to be the earliest visual representations of the signs produced in the medieval West (fig. 1).<sup>9</sup> The manuscript was previously housed in the monastery of Fulda, where it was most probably made, around 800 CE. The style of the Zodiac figures seems very crude and it can be said that they markedly differ in their appearance from their antique and late antique predecessors. It seems as if the artist responsible for them did not have any visual prototypes which he could follow. Still, upon closer examination, we can notice that he was willing to obey certain iconographic rules in representing Zodiac signs. The figure of Virgo holds in her hands something that looks like an ear of wheat, which is a common iconographical feature representing Spica, or Alpha Virginis, the brightest star of the constellation. The Aquarius figure is equipped with a strange object, which was probably meant to represent an amphora or some kind of a water vessel, also a standard attribute of the sign. In all probability, the artist was provided with some sort of guidance regarding the way Zodiac signs are supposed to look, but it appears that no actual pictorial models were available to him. That also seems to be the case with the artist who painted the figures in the miniature of the Zodiac on fol. 73r of the so-called "Munich Computus", dated to the first decades of the 9<sup>th</sup> century (fig. 2).<sup>10</sup>

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7 On ancient texts containing astronomical and astrological information available to western medieval readers, see C. Burnett, *Astrology*, in: *Medieval Latin, An Introduction and Bibliographical Guide*, eds. F. A. C. Mantello and A. G. Rigg, Washington D.C. 1996, 369-383, 370; B. S. Eastwood, *Ordering the Heavens, Roman Astronomy and Cosmology in the Carolingian Renaissance*, Leiden 2007.

8 Bede, *The Reckoning of Time*, 11;16, trans. F. Wallis, Liverpool 1999; id. *On the Nature of Things*, 17, trans. C. B. Kendall and F. Wallis, Liverpool 2010. Isidore of Seville, *The Etymologies*, III, 25; XII, 9, trans. S. A. Barney, W. J. Lewis, J. A. Beach, O. Berghof, Cambridge 2006.

9 B. Obrist, *La représentation carolingienne du zodiaque. A propos du manuscrit de Bâle*, Universitätsbibliothek, F III 15a, *Cahiers de civilisation médiévale* 173 (2001), 3-33.

10 Munich, Bayerische Staatsbibliothek, Clm 14456.

On the other side of Christendom, in the Eastern Roman empire, around approximately the same time, images of the Zodiac were being made, quite similar to Classical ones. They can be seen in the famous “Vatican Ptolemy”.<sup>11</sup> On the full-page miniature on fol. 9r, all twelve signs are depicted on the circular diagram representing Sun’s table (fig. 3).<sup>12</sup> The exceptional quality of the illuminations and the lavishness of the materials used point to Constantinople as the place where the manuscript was produced, most likely, during the reign of Constantine V (741-775).<sup>13</sup>

Another full page miniature of the Zodiac circle in a Greek manuscript can be found in the oldest surviving copy of the Christian Topography, dating from the 9<sup>th</sup> century.<sup>14</sup> The work itself was composed in the 6<sup>th</sup> and preserved in two more copies from the 11<sup>th</sup> century.<sup>15</sup> Even though the miniature is badly damaged, it can be observed that Zodiac signs in the outermost ring are represented in a conventional iconographic manner.

What can be deduced from these two examples, the earliest ones in Byzantine art, is that the artists were certainly acquainted with renditions of the Zodiac in Classical art. As written sources and surviving evidence suggest, ancient monuments with Zodiac decoration could still be seen in

11 Vat. Gr. 1291. This manuscript represents the oldest surviving copy of Ptolemy’s *Handy Tables*, as well as the only one to receive miniatures with figural decoration. B. W. Anderson, *World image after world empire: the Ptolemaic cosmos in the early middle ages, ca. 700-900*, Ph.D. diss, Bryn Mawr College 2012, 90.

12 This is the most famous miniature from the manuscript. Zodiac signs are also represented on two constellation maps of northern and southern hemispheres on folios 2v and 4v. Individual signs are also depicted in the lunettes at the top of various tables found on fols. 22r-37v. Iconographic and stylistic differences between these depictions of the signs in the manuscript have been noted, which are probably due to the presence of several artists in its production. L. Brubaker, J. Haldon, *Byzantium in the Iconoclast Era (ca 680-850): The Sources, an Annotated Survey*, Aldershot 2001, 40.

13 Constantinopolitan origin of the manuscript and its possible connections with the imperial court have been proposed and argued by several authors. I. Ševčenko, *The Search for the Past in Byzantium around the Year 800*, in: *Homo Byzantinus: Papers in Honor of Alexander Kazhdan*, *Dumbarton Oaks Papers* 46 (1992), eds. A. Cutler and S. Franklin, Washington D.C. 1992, 279-293, 287; L. Brubaker, J. Haldon, *Byzantium in the Iconoclast Era (ca 680-850)*, 38; P. Magdalino, *The Byzantine Reception of Classical Astrology*, 36; B. W. Anderson, *World image after world empire*, 87. The proposed dating is according to David Wright, who conducted the analysis following the suggestion of I. Ševčenko. D. H. Wright, *The Date of the Vatican Illuminated Handy Tables of Ptolemy and of Its Early Editions*, *Byzantinische Zeitschrift* 78 (1985), 355-62. This dating has generally been accepted, although some scholars still follow previous analyses which posit that the manuscript was made some time in the first half of the 9<sup>th</sup> century. For an overview of different hypotheses concerning the date of the “Vatican Ptolemy” see B.W. Anderson, *World image after world empire*, 79-86.

14 Vat. Gr. 699, fol. 43v.

15 Laur. Plut. IX. 28; Sin. Gr. 1186. See M. Kominko, *The World of Kosmas, Illustrated Byzantine Codices of the Christian Topography*, Cambridge 2013.

Constantinople and in the other parts of the Empire at that time.<sup>16</sup> Mosaics with the circle of the Zodiac were still being produced on its territory up until the 6<sup>th</sup> century.<sup>17</sup> Even though no surviving examples remain, Zodiac signs were probably included in the decoration of ancient manuscripts. Illustrations were also an integral part of Christian Topography, as the text itself refers to images.<sup>18</sup> Thus, the original manuscript from the 6<sup>th</sup> century must have contained the image of the universe according to the pagans, as depicted on the 9<sup>th</sup> century copy, and on both manuscripts from the 11<sup>th</sup>. In this work, the author, later given the name of Cosmas, criticizes cosmological theories of the Classical world, epitomized by those expounded in the works of Ptolemy. Zodiac presented on its pages simply illustrates how the universe was envisioned by the ancients, and those adhering to their ideas.

Neither this image nor the example from the *Handy Tables*, possess any religious or Christian implications. The only possible hint at Christianizing can be noticed in the “Vatican Ptolemy”, in the central medallion of the Sun’s table where a cross shape can be seen on the quadriga of Sol. Also, the way the whip is painted, flying above the globe in his hands in such a manner that it creates a form resembling a globe cruciger.<sup>19</sup> But all this was probably meant to be evocative of representations of Christian rulers, or rulers *per se*, who at the time of the manuscript’s production were most certainly Christian.

Representations of the Zodiac in Byzantine art are not found in a religious context before the first quarter of the 12<sup>th</sup> century, when the *opus sectile* floor

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16 The 8<sup>th</sup> century compilation, *Parastaseis Syntomoi Chronikae*, recounts how Justinian removed the statuary from the old cathedral of St. Sophia and had it dispersed across the city. Among those, sculptures of the Zodiac signs are also mentioned. A. Cameron, J. Herrin, *Constantinople in the Early Eighth Century: The Parastaseis Syntomoi Chronikae: Introduction, Translation, and Commentary*, 11, Leiden 1984. In the 10<sup>th</sup> century “Life of Patriarch Eutichios”, we read about bronze sculptures of the Zodiac signs that could be seen on the Hippodrome. *Vita Eutychiei patriarchae CP*, trans. P. Karlin-Hayter, Bruxelles 1970, 128. It should come as no surprise that antique statuary representing the Zodiac signs could be seen across the Eastern Roman Empire, considering how prevalent zodiacal imagery was in visual culture of antiquity and late antiquity. Some of those monuments survive to this day, like the Arch of Galerius in Thessaloniki, which contains the image of the Zodiac circle on the east face of the south pier, now badly damaged.

17 There are several examples preserved in modern day Greece, such as 4<sup>th</sup> century mosaics, one from a Roman villa in Sparta, and the other one from Tallaras baths on the island of Astypalaea in the Aegean, as well as the afore-mentioned 5<sup>th</sup> century mosaic in Thessaloniki. There is also a group of Zodiac mosaic floors found in the synagogues in the land of Israel that were made during the Byzantine period. The oldest one, in Hammat Tiberias, is dated to the 4<sup>th</sup> century CE, the one in Sephoris to the beginning of the 5<sup>th</sup>, and the remaining mosaics- at Beth Alpha, Na’ aran, Huseifa, and Yafiya- are dated to the 6<sup>th</sup> century.

18 M. Kominko *The World of Kosmas*, 70.

19 This detail and its connection to imperial iconography has been emphasized by Benjamin Anderson in his doctoral dissertation, B.W. Anderson, *World image after world empire*, 108.

of the *katholikon* of the Pantokrator monastery in Constantinople was made.<sup>20</sup> By that time, exteriors and interiors of many churches in the West were already being decorated with zodiacal imagery. In the following centuries, renditions of the Zodiac in various visual forms came to proliferate in many parts of Western Europe, to a much greater extent than in the lands of the Byzantine commonwealth. Although the Zodiac can be encountered in post-Byzantine art, it is not as common as in the Western art of later periods. The process of inclusion of the Zodiac into the iconographic repertoire of Christian art had also begun much earlier in the West. Already in the third quarter of the 9<sup>th</sup> century, signs of the Zodiac could be found in religious art. They adorn the pages of such notable examples as the Utrecht Psalter (fig. 4) and the First Bible of Charles the Bald (fig. 5).<sup>21</sup> They were also included in the decoration of liturgical books and objects, as can be seen in the Sacramentary of Marmoutier and the Quedlinburg ivory casket (fig. 6).<sup>22</sup>

The afore-mentioned examples also reveal drastic improvements in depiction of the signs. Stylistic progress and iconographic accuracy in their representation can be observed already in the first half of the 9<sup>th</sup> century, in some of the so-called *Aratea* manuscripts. These manuscripts contain a Latin translation of the astronomical poem *Phaenomena*, written by Aratus of Soli in the 3<sup>rd</sup> century BCE. The poem received three Latin translations in the Roman period, and it enjoyed great popularity in Carolingian times as well: the total of thirteen copies have come down to us from the 9<sup>th</sup> century alone. All of them, with the exception of two, have illustrations.<sup>23</sup> Among them, images of the Zodiac signs can be found. They mostly represent zodiacal constellations, depicted either individually or within celestial maps. Some of the manuscripts also contain the image of the whole circle of the Zodiac.<sup>24</sup> The amount

20 R. Ousterhout, *Architecture, Art and Komnenian Ideology at the Pantokrator Monastery*, in: *Byzantine Constantinople: Monuments, Topography and Everyday Life*, ed. N. Necipoğlu, Leiden, Boston 2001, 133-153.

21 MS Bibl. Rhenotriactinae I Nr. 32, fol. 36r; Bibliothèque Nationale de France, MS lat. 1, fol. 8r.

22 From Marmoutier, this sacramentary came to Autun, where it is currently kept in the city library under the mark MS. 19 bis. The Quedlinburg casket was used as a reliquary and it is also known as the St. Servatius reliquary, but its primary use could have been that of a portable altar, as Evan Gatti had suggested. E. A. Gatti, *Reviving the Relic: An Investigation of the Form and Function of the Reliquary of St. Servatius, Quedlinburg*, *Athanas* 18 (2000), 7-15.

23 M. Dolan, *The Role of Illustrated Aratea Manuscripts in the Transmission of Astronomical Knowledge in the Middle Ages*, Ph.D. diss, University of Pittsburgh 2007, 1, 172. In the dissertation, the list of all the surviving *Aratea* manuscripts can be found in the Appendix A, 312-321.

24 Some of them included the circle of the Zodiac enclosing personifications of the Sun and the Moon, as Paris, Bibliothèque nationale de France, lat. 12957, fol. 72r, and two copies from St. Gallen, Stiftsbibliothek, Ms 250, p. 515, and Ms. 902, p. 100.

of preserved copies of *Phaenomena* is indicative of growing interest in celestial matters present in Carolingian times, which can also be evinced from other astronomical and cosmological texts that often accompany this work. Manuscripts containing solely the poem are also found, which testify to the symbolic importance accorded to the text, despite its lack of practical value.<sup>25</sup> The oldest manuscript of that kind is the famous “*Leiden Aratea*” (fig. 7). It is generally agreed that the manuscript was made during the reign of Louis the Pious. The richness of its materials and the quality of illumination has led many scholars to believe that it was produced for a member of the court, perhaps even for the king himself.<sup>26</sup> Louis was noted for his interest in celestial matters. His biographer, known as the “the Astronomer”, informs us of the king’s concern over the appearance of Halley’s Comet in the year 837.<sup>27</sup> Louis’ father, Charlemagne, shared this interest, as is revealed by his biographer Einhard, as well as by his correspondences.<sup>28</sup> From Charlemagne’s letters to Alcuin, and later to Dungal of St. Denis, we learn that the king consulted these two learned clerics over his own calculations and that he enquired about the appearances of solar eclipses.<sup>29</sup> Comets and eclipses were considered powerful portents, even in the old Babylonian times. Their occurrences were related to events and prospects of the state itself, and more particularly to the future of the sovereign.<sup>30</sup> Gregory of Tours,

25 As Marion Dolan demonstrated in her doctoral dissertation, information given by Aratus in his poem could not be used by medieval readers for calculating time or for computus, since it does not account for more specific local times of risings and settings of the stars. Neither is it very useful for identifying constellations, since their descriptions are not always accurate. It could mostly serve for memorizing myths associated with them, as a kind of a mnemonic aid. M. Dolan, *The Role of Illustrated Aratea Manuscripts*, 268-9, 274-6. “A person who consulted an *Aratea* manuscript could learn the names and relative positions of the constellations from the text, and they could learn the general appearance of the mythological figures from the illustrations and the celestial map. But there is no way the text or pictures could teach you any practical astronomy or help you locate the constellations, if you didn’t already know where they were, and what they looked like.” *Ibid.*, 274-5.

26 Leiden MS Voss. lat. Q. 79. It is also one of the oldest surviving copies of the Germanicus translation. There are also speculations that the manuscript was made for Lothar I, Louis’ eldest son, or Judith, his second wife. *Ibid.*, 211-2.

27 *The Astronomer, The Life of Emperor Louis*, 58, in: *Charlemagne and Louis the Pious, The Lives by Einhard, Notker, Ermoldus, Thegan, and the Astronomer*, trans. T. F. X. Noble, Philadelphia 2009, 226-303.

28 Einhard, *The Life of Charles the Emperor*, 25, in: *Charlemagne and Louis the Pious, The Lives by Einhard, Notker, Ermoldus, Thegan, and the Astronomer*, trans. T. F. X. Noble, Philadelphia 2009, 21-51.

29 Alcuini, *Epistolae*, 126, 145, 148, 149, 155, 170, 171, in: *Epistolae Karolini Aevi*, tomus II, ed. E. Duemmler, (Monumenta Germaniae Historica), Berlin 1895; Dungalus, *Dungali Scotti Epistolae*, 1, in: *Epistolae Karolini Aevi*, tomus II, ed. E. Duemmler, Monumenta Germaniae Historica, Berlin 1895.

30 H. Hunger, D. Pingree, *Astral Sciences in Mesopotamia*, Leiden 1999, 6; M. Ross, Eclipses and the Precipitation of Conflict: Deciphering the Signal to Attack, in: *The Religious Aspects of War in the Ancient Near East, Greece, and Rome*, ed. K. Ulanowski, Leiden 2016, 99-120.



Isidore, and Bede warn that comets announce wars, epidemics, but also changes on the throne.<sup>31</sup> Thus it seems that the study and observation of the heavens was promoted and driven not only by practical issues like calculating time and dates of Easter, but also by more personal interests. Those interests could have been concealed under the guise of concern for the end of times. Since scriptural accounts of the apocalypse mention the signs in the sky preceding the Second coming, and darkening of the Sun specifically, conversations regarding solar eclipses could thus be justified.<sup>32</sup> From the letter of Dungal, we learn of a certain Greek bishop staying at the court and informing Charlemagne of an eclipse that was visible in Constantinople.<sup>33</sup> This detail is revealing of two things: diplomatic contact existing between the two empires at the time, and of celestial phenomena being discussed during their encounters.

This was not the first time a Byzantine shared pieces of astronomical knowledge with the Westerners. In the 7<sup>th</sup> century, Theodore of Tarsus, archbishop of Canterbury, who lived and studied in Constantinople, moved to the British Isles where he taught astronomy and computus, as well as astrology.<sup>34</sup> Another example of a person relocating from Byzantium to Western Europe can be found in Alexander of Tralles. This famous 6<sup>th</sup> century physician travelled and resided in Italy, Gaul, and Spain. His works contained elements of astrological theory, as did most Classical medicine.<sup>35</sup>

While we do not have evidence of scientific astrology being practiced in the West during the Early Middle Ages, or any horoscopes surviving from that time, primitive forms of astrology can be found in contemporaneous Latin manuscripts. In the diagram from Fulda, predictions are written for some of the signs: “in Scorpio, it is good to arrange a marriage and take a wife; in Pisces, they who shall be born shall have enmity...”<sup>36</sup> Zodiac was

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31 Gregorii Turonensis Episcopi, *De cursu stellarum*, 58, 59, ed. F. Haase, Wroclaw 1853; Isidore, *The Etymologies*, III. lxxi. 16; Bede, *On the Nature*, 24.

32 Matthew 24:29; Mark 13:24-25; Luke 21:25.

33 This bishop was perhaps part of an embassy visiting Aachen in 811. B.S. Eastwood, *Ordering the Heavens*, 46, ft. 35, 125, ft. 47.

34 Bede relates that Theodore taught astronomy and computus, *Bede's Ecclesiastical History of England*, IV, 2, trans. A. M. Sellar, London 1907. Aldhelm, Theodore's pupil and later bishop of Sherborne, claims that he learned from his teacher about the twelve signs of the Zodiac and how to cast nativities. Aldhelmi Opera, *Epistolae*, 1, ed. R. Ehwald (Monumenta Germaniae Historica), Berlin 1919.

35 L. Thorndike, *A History of Magic and Experimental Science*, Vol I, New York 1929, 575-584.

36 Translation according to H. S. Crawford, Notes on the Irish Zodiac Preserved in the Library at Basel, *The Journal of the Royal Society of Antiquaries of Ireland* 15/2 (1925), 130-135, 132.

an important element in these early medieval prognostical texts. Some of them belonged to the genre of zodiologia in which predictions were made based on the position of the Moon within the Zodiac. Greek words are often found in these texts, and parallels between Greek and Latin texts have been noted.<sup>37</sup> On the diagram from the “Munich computus”, next to the unidentified figure, SPEKIB is written in Greek letters, which is bikeps read backwards, probably meaning biceps, or two-headed.<sup>38</sup>

Transmission and development of zodiacal iconography in Carolingian art were undoubtedly carried through manuscripts. It is mostly in manuscripts that we find images of the Zodiac. Even though ancient monuments with zodiacal decoration could be seen on Frankish territories, more minute iconographical details could hardly be observed on larger scale representations.<sup>39</sup> Book illumination was a much more suitable medium for that purpose, and the texts they illustrated provided context for understanding the images.

Books were also sent as gifts.<sup>40</sup> Diplomatic contact between Byzantine and Frankish states was very lively during the Carolingian period.<sup>41</sup> When choosing gifts, the Byzantines gave much attention to recipient’s desires and ambitions. Since they must have had awareness of Western rulers’ predilection for prognostics, astronomy, and Classical learning in general, they could have considered an illustrated copy of *Phaenomena* as a suitable gift. Whilst the possibility of a Classical prototype coming from Byzantium was entertained by some scholars, it can only remain a hypothesis

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37 C. Burnett, Late Antique and Medieval Latin Translations of Greek Texts on Astrology and Magic, in: *The Occult Sciences in Byzantium*, eds. P. Magdalino and M. Mavroudi, Geneva 2006, 325- 361, 332-3.

38 E. Graff, The thirteenth figure in the Munich computus zodiac, *Journal for the History of Astronomy* 36/24 (2005), 321-334, 325.

39 The Arch of Dativius Victor in Mainz provides a good example. Zodiac signs surround the figures of Jupiter and Juno on the upper section of the 3<sup>rd</sup> century monument which was later built into the city walls. The stones were recovered and reconstructed in the late 19<sup>th</sup> century and are currently housed in the Mainz *Landesmuseum*, while a replica stands in a park nearby. K. Cassibry, Provincial Patrons and Commemorative Rivalries: Rethinking the Roman Arch Monument, *Mouseion: Journal of the Classical Association of Canada*, 8/3 (2008), 417-450, 421.

40 Manuscript of Pseudo- Dionysius’ Celestial Hierarchy (BN grec. 257) was presented to Louis the Pious’ court in 827 CE. M. McCormick, Byzantium and the west, 700-900, in: *The New Cambridge Medieval History, Vol. II c. 700- c. 900*, ed. R. McKitterick, Cambridge 2008, 349- 383, 374.

41 Michael McCormick emphasized the role of diplomatic contacts in cultural exchange between these two states, counting a total number of thirty embassies sent between Byzantine and Frankish courts during the reigns of Charlemagne and Louis the Pious. M. McCormick, Diplomacy and the Carolingian Encounter with Byzantium down to the accession of Charles the Bald, in: *Eriugena: East and West. Papers of the Eighth International Symposium of the Society for the Promotion of Eriugenean Studies*, eds. B. McGinn and W. Otten, Notre Dame 1994, 15-48.

until more direct evidence surfaces.<sup>42</sup> Regardless, we need to acknowledge the ways Byzantium influenced attitudes towards disciplines that enabled accommodation of the Zodiac motif into Christian art. Although zodiacal imagery emerged in these cultures almost concurrently, the paths of its appropriation later diverged. By discerning their distinctions in that process, we could further elucidate how ideas and knowledge migrating across space enabled migration of the Zodiac motif through time.

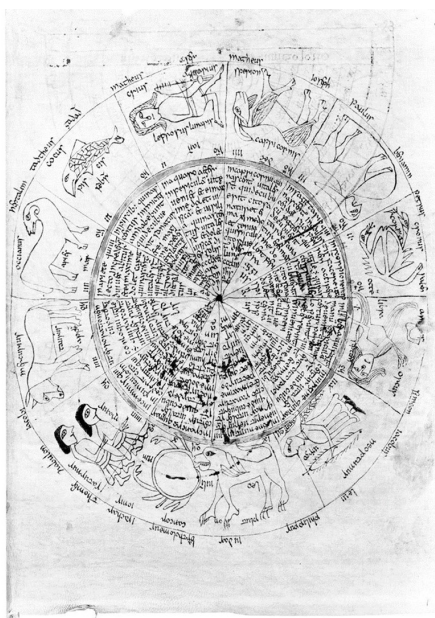


Fig. 1: Diagram with Zodiac, Manuscript from Fulda, Basel, Universitätsbibliothek, F III 15a, fol. 23r. (Obrist 2001, fig. 1)



Fig. 2: Diagram with Zodiac, "Munich Computus", Munich Bayerische Staatsbibliothek Clm 14456, fol. 73r. (Graff 2005, fig. 1.)

42 M. Dolan *The Role of Illustrated Aratea Manuscripts*, 302. E. Dekker, The Provenance of the Stars in the Leiden *Aratea* Picture Book, *Journal of the Warburg and Courtauld Institutes*, 73 (2010), 1-37, 28.



Fig. 3: Sun's table, *Manuscript of Ptolemy's Handy Tables*, Vat. Gr. 1291, fol 9r, (S. Cohen, *Transformations of Time and Temporality in Medieval and Renaissance Art*, Leiden 2014, fig. 11)



Fig. 4: Illustration for the Psalm 64, *Utrecht Psalter*, MS Bibl. Rhenotraiectinae I Nr. 32, fol. 36r (© Universiteit Utrecht)



Fig. 5: Initial D, First Bible of Charles the Bald, Bibliothèque Nationale de France, MS lat 1., fol. 8r (© Gallica BnF)



Fig. 6: Quedlinburg casket, back side, Treasury, Church of St. Servatius, Quedlinburg, 13.6 x 24.9 x 12.4 cm, (photo: Ann Münchnow, copyright bpk Webg, Garrison 2010, PL.4.)

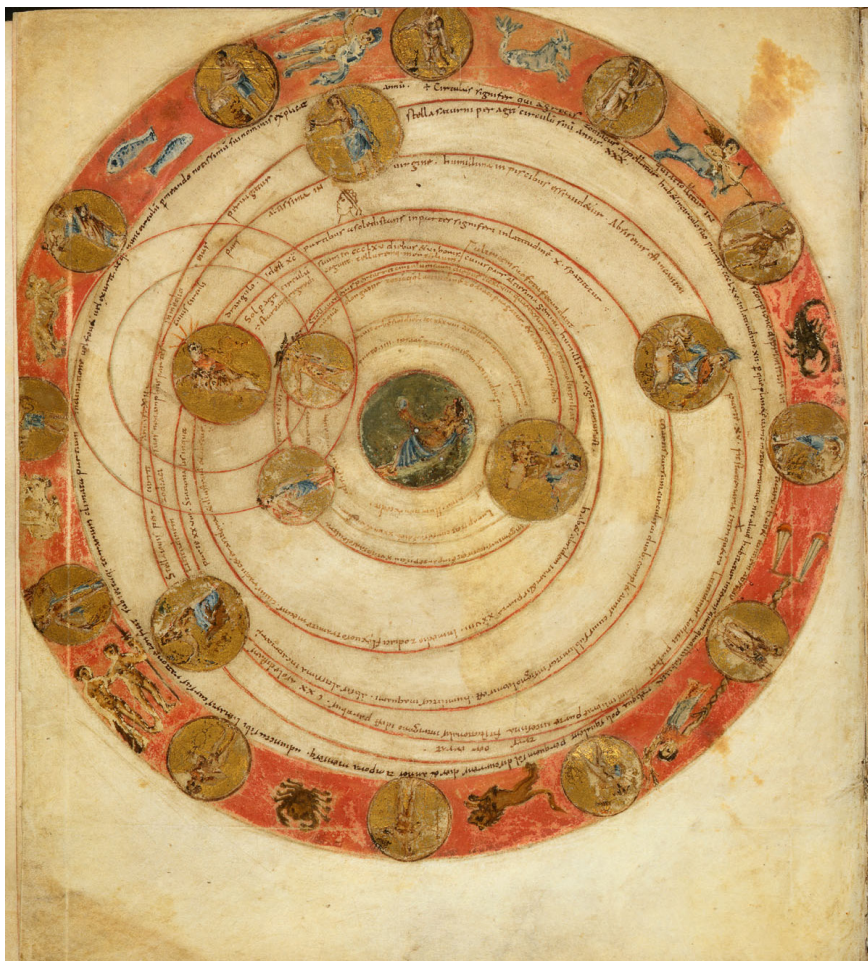


Fig. 7: Planetary diagram, "Leiden Aratea", Leiden MS Voss. lat. Q. 79, fol. 93v, (Eastwood 2007, fig. 3.12)