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THE RHYTHMS OF THE MEDIEVAL NIGHT

Night seems to us to be a natural phenomenon whose explanation appears to be easy: the rotation of the earth around its own axis in front of the sun accounts for the more or less rapid alternation, according to season and latitude, of night and day. In short, night would be a temporary shadow dropped on a portion of the surface of the globe as long as the sun did not shine on it. Night would be the reverse of day, its negative, waiting for the situation to be reversed after a few hours. Such observations are not inaccurate, but they are insufficient. For the historian, as for the ethnologist or sociologist, night cannot be reduced to a physical or astronomical explanation. Night is just as much a social phenomenon, rich in a multitude of meanings and uses. People inhabit the night with their activities, their imagination, and their dreams. Their astronomical conceptions of the night are themselves products of history.

Numerous works of medieval and modern history, such as those of Alain Cabantous, a historian of the night focusing particularly on the night in the 'second modernity' (seventeenth to eighteenth century) in France and England, show that the night is not simply the opposite of the day, but must be studied in its 'autonomous temporality'[1]. The work of medievalists amply confirms this point of view, for example that of Frank Rexroth on

1. Alain Cabantous, «Une histoire de la nuit est-elle possible?». Conférence prononcée le 22 novembre 2017. Société d'ethnologie. *Conférence Eugène Fleischmann*, XI, Nanterre, 2019; Id., *Histoire de la nuit (XVII^e^-XVIII^e^ siècle)*, Paris, Fayard, 2009.

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late medieval London[2], of Elisabeth Crouzet-Pavan in the case of Venice[3], of Jean Verdon[4] and Craig Koslofsky providing a more global perspective[5], or of Catherine Vincent on the liturgical use of candles and luminaries, one of whose functions was to bring artificial daylight into the darkness of medieval sanctuaries[6].

I would like to begin by recalling the achievements of those works, which depict in detail the social realities of the medieval night. For centuries, night has been equated with the deepest darkness. Darkness blurs the acuity and hierarchy of physical senses: during the night, the pre-eminence of sight gives way to a necessary recourse to hearing, touch, and smell. The limits of perception give rise to fear, dread, and imagination, facilitating the assimilation of night with sin, crime, the devil, and the sabbath.

After the fatigue of the day, the night invites one to a restful sleep and promises escape into dreams. It is at night that the couple finds its intimacy: night is favorable for the couple's love and desire to reproduce.

In the public space, the authorities responsible for social order seek to banish from the night the activities that prevail during the day, starting with artisanal or manufacturing work. Strictly regulated by the trade and urban authorities, working time was limited by the ringing of a certain bell, the *werkglocke*, in the Flemish towns. The night watchmen enforced the curfew, tracked down arsonists, monitored prostitutes, and increased the penalties for nighttime crime. In Venice, the Lords of the Night (*Domini de Nocte*), one for each district or *sestiere*, were charged by the Council of Ten with organizing and monitoring the 'Venetian night,' ensuring that the ban on night work was respected, repressing abuses of all kinds, and chasing down arsonists. Their

2. Frank Rexroth, *Das Milieu der Nacht. Obrigkeit und Randgruppen im spätmittelalterlichen London*, Göttingen, Vandenhoeck & Ruprecht, 1999.

3. Elisabeth Crouzet-Pavan, *Soppra le acque salse. Espace, pouvoir et société à Venise à la fin du Moyen Âge*, Rome, Ecole française de Rome, 1992, I, 255-57; II, 802-7.

4. Jean Verdon, *La nuit au Moyen Âge*, Paris, Perrin, 1994.

5. Craig Koslofsky, *Evening's Empire. A History of the Night in Early Modern Europe*, Cambridge, Cambridge University Press, 2011.

6. Catherine Vincent, *Fiat Lux. Lumière et luminaires dans la vie religieuse du XIII^e au XV^e siècle*, Paris, Cerf, 2004.

role was so important that it soon extended beyond the fluctuating limits of the night and into daytime policing. «The Lords of the Night are also the Lords of the Day», writes Elisabeth Crouzet-Pavan[7]. The night laid the foundation upon which the organization of the day was established. But the authorities were not content with prohibiting and repressing; they also sought to tame the night and to control it, by promoting festivals and nocturnal processions. The improvement of public lighting, the nocturnal celebration of major public events, such as the entrance of the prince or the birth of a royal heir, and the growing popularity of fireworks, evidence the conquest of the night by the day.

It is also important, however, to observe how the night generates its own activities. Some professions cannot interrupt their activity at night: the baker kneads his dough when everyone is still asleep; the fire in the glassmaker's or bell founder's oven cannot be interrupted and must therefore be kept going all night. In the countryside, the wake gathers the whole extended family, the servants, and the close neighbors until late in the night. Night is a place and an important moment of sociability and intergenerational transmission of knowledge and beliefs. Among them, those concerning the stars, and especially the moon, are of particular importance both for the empirical knowledge of the fertility of plants and animals and for the mysteries of human fertility. The night thus has a history, which allows us to conclude with Alain Cabantous that «even if certain elements of autonomy of the dark hours existed before the sixteenth and seventeenth centuries, the period of the second modernity unquestionably promoted an autonomous construction of the night»[8]. Furthermore, the revolution in public lighting, with oil lanterns, then gas streetlamps, and eventually electricity, has changed the history of the night, both in the city and in the countryside.

If we look at the history of the night over a long period, we can see that night has not always been the same. The physical reality of night, at the same latitudes, has not changed over the centuries, whereas the understanding of night, the uses of night,

7. Crouzet-Pavan, *Soppra le acque salse*, 806.
8. Cabantous, «Une histoire de la nuit est-elle possible», 27.

and the beliefs engendered by it have altered profoundly in the meantime. In the imagination of artists, even the color of the night has changed: of course, night has always been said to be black, but it was less a matter of a particular color than of the absence of daylight. It was only at the end of the Middle Ages that painters immersed the scene of Christ praying on the Mount of Olives in a dark atmosphere, whereas the torches and lanterns of the Roman soldiers and the sleeping attitude of the disciples of Christ had previously been sufficient to connote the night (fig. 2)[9]. In fifteenth-century painting, the dark night sky becomes a common feature of the Passion of Christ, as do other archetypal scenes, such as the Dream of Constantine painted by Piero della Francesca in Arezzo[10], or that of Love giving the heart of the sick king to Desire, in one of the miniatures painted by Barthélemy d'Eyck for King René of Anjou's *Livre du Cœur d'amour épris* (The Book of the Love-Smitten Heart) between 1457 and 1470[11].

In order to explain the importance of all these historical changes, I shall focus on the question of the rhythms of the night[12]. The rhythms of the night are variable, but they have in common the fact that they result from a division of time: They presuppose the distinction and succession of night and day, as well as of day and night; they also invite us to divide the time of the night into units that may or may not be equally long, as the length of the night could change according to the season; they make us aware of the difference between the heart of the night (which is not necessarily its darkest moment), the fall of night or twilight, or at the other end the appearance of the first light of dawn. All these distinctions determine variable rhythms, which

9. *Agony of Christ in the Garden of Olives*, Breviary, Besançon, Bibliothèque municipale, Ms 69, fol. 28. Illumination by the Maître de l'Echevinage de Rouen, before 1498.

10. Piero della Francesca, *Emperor Constantin's Dream*, in the Legend of the Holy Cross, Basilica San Francesco of Arezzo, 1464.

11. René d'Anjou, *Livre du Coeur d'amour épris*, Vienne, Österreichische Nationalbibliothek, Cod. 2597, attributed to Bartholomew of Eyck, between 1457 and 1470.

12. My reflection is based on the results of my book *Les rythmes au Moyen Âge*, Paris, Gallimard, 2016.

are measured and named in different ways. At the end of the Middle Ages, one could divide the night by using the astral hours, observing the sunset, the rising of the moon, the appearance of a constellation in the starry sky; monks or clerics would refer to the canonical hours, be it vespers, compline, vigils, or matins in the 'middle of the night' or lauds or prime time at sunrise. In the family, people relied more frequently on the familiar reference points of domestic tasks and family meals: An action would rather be situated 'before dinner' or 'after dinner,' 'before bedtime' or 'at sunrise,' all expressions that signify precise moments in time for those who are aware of them. One could also, and this happened more often from the fourteenth century onwards, refer to the ringing of bells and to public mechanical clocks whose single hand runs night and day through the twelve points of a circular dial, as became the custom in the cities of the late Middle Ages.

The question of the ways in which nighttime is divided is of fundamental importance. It is even primordial in the entire history of Judeo-Christian culture, since it is explicitly mentioned in the first words of the book of Genesis. We must therefore begin with this Creation myth. Let us quote Genesis 1:1-5 and underline the main words in italics:

In the beginning God created the heaven and the earth. 2. Now the earth was vague and empty, *darkness* covered the deep, the spirit of God hovered over the waters. 3. God said, '*Let there be light*', *and there was light*. 4. God saw that the light was good, and God *separated the light and the darkness*. 5. God called the light 'day' and *the darkness* '*night*'. There was *evening* and there was *morning*: the first day.

According to Genesis 1:2 the «darkness» was first, not the light[13]. In the second stage, the light tore apart the darkness and immediately opposed it. While creating them, God named them day and night. Their alternation immediately marked God's creative work for the next six days.

13. For the connection between the interpretation of Genesis and monks' attitudes towards the night, see Mary W. Helms, «Before the Dawn. Monks and the Night in late Antiquity and Early Medieval Europe», *Anthropos*, 99/1 (2004), 177-91.

The following verses (Gen. 1:6-8) describe the second day: God creates the firmament that separates the waters above from the waters below. Here again, the divine action is concluded by the formula: «There was evening and there was morning», which signifies the alternation of day and night.

On the third day, God raises the earth from the waters, separates it from the sea, and then sows it so that grass and fruit trees grow (Gen. 1:9-13).

On the fourth day (Gen. 1:14-19), God creates the sun on the one hand and the moon and stars on the other. Again, we should quote these verses:

> God said, 'Let there be lights in the firmament of heaven to *divide the day from the night*: let them be for signs, both of feasts and of days and years: 15. Let them be lights in the firmament of heaven to give light on the earth', and so it was. God made the two major lights: the great light as the power of the day and *the little light as the power of the night, and the stars*. 17. God placed them in the firmament of the sky to give light to the earth, 18. to command the day and *the night*, to separate the light and the *darkness*, and God saw that it was good. 19. And there was *evening* and there was *morning*, the fourth day.

Thus, on the fourth day, God completes the division of day and night by endowing both with the luminaries that are their signs: the sun for the day, the moon and the stars for the night. Their respective intensity distinguishes these luminaries: the 'great' luminary, the sun, on the one hand, and the moon and stars on the other. Moreover, the luminaries are preventively endowed with a social utility, even though human beings have not yet been created: it is said that they will serve as 'signs' for festivals as well as for days and years; in other words, they form the framework for the human calendar.

The six days of Creation were the subject of countless textual commentaries and iconographic representations in the Middle Ages. Consider the *Bibles moralisées* of the early thirteenth century, which have the particularity of accompanying each image with a textual commentary and attaching to each biblical scene a 'moralization' emphasizing its 'meaning' for Christian culture and society. The French manuscript of the Vienna *Bible moralisée*

opens with a full-page frontispiece showing God as a surveyor, marking with a compass the roundness of the earth surrounded by the firmament (fig. 3-4). The caption to this full-page image explicitly states: «Ici crie Dex ciel et terre, soleil et lune et toz elemens» («Here God creates heaven and earth, sun and moon, and all elements»)[14]. This frontispiece can be compared with that of the Oxford Latin *Bible moralisée*, where the Creator is not depicted in action, as in the Vienna manuscript, but is enthroned majestically in a celestial quatrefoil held by four angels. But he also displays the compass, the true attribute of the divine geometer, the instrument of the mathematical division of space and time[15].

The scene of the separation of day and night immediately follows in both manuscripts: «Ici depart Dex le jour et la nuyt» («Here God parts day and night»), depicted as two semicircles separated by a gap: at the top the white semicircle of day; at the bottom the black one for the night. The two halves of the circle are strictly equal. In the moralization, the brightness of the day is equated with that of the angels and the Church.

The third image from Vienna (top right of the folio) shows the creation of the firmament: «Ici fet dex le firmament, la terre en mi et la mer entor» («Here God makes the firmament, the earth in the middle and the sea around») and the fourth image shows the way God hung the sun, the moon, and the stars in the firmament: «Ici fet dex le soleil et la lune et les etoiles. Li soleax enlumine la lune» («Here God makes the sun and the moon and the stars. The sun illuminates the moon»)[16]. The moralization of this last image equates the light of the sun with divinity; that of the moon, which depends on the sun, with the light of the Church, which in fact depends on the light of God; and that of the stars with the lights of the clergy.

Let us have a closer look, as far as the night is concerned, at the lessons of the myth and its pictorial representation: the divine creation is compared to a geometric operation, consisting

14. *Bible moralisée*, Wien, Österreichische Nastionalbibliothek, Cod. 2554, ed. by Reiner Haussherr, Graz/Paris, Akademische Druck- u. Verlagsanstalt/Club Du Livre, 1973.

15. *Bible moralisée* of Oxford, London, Paris, Oxford, Ms. Bodl. 270b.

16. Vienna *Bible moralisée*.

of using a compass to circumscribe the world and to divide the elements; night and day spring from the tearing of the initial darkness and immediately oppose each other; night is endowed in the firmament with two specific stars, the moon, which receives its light from the sun, and the fixed stars; the alternation of day and night creates a weekly rhythm, that of the six days of Creation, followed by the seventh day of God's rest. Beyond this are the human rhythms of feasts and the calendar. The division of day and night and the knowledge of the stars are not just a matter of geometry or astronomy, the sciences of the quadrivium. Day and night mobilize a symbolic interpretation, both ecclesiological and moral, which equates the light of the stars with that of God, the Church, and the clergy. Conversely, night is symbolically linked to the Jews since they have not been able to recognize the Messiah and still take pleasure in the darkness. The Oxford *Bible moralisée* also identifies the day with good angels and virtues, and the night with rebellious angels and vices. In all respects, the alternation of night and day is not just a natural phenomenon but an object for symbolic thinking about the values of Christian society.

The mentions of the night are very numerous in the whole Bible, not only in Genesis. To study them would be a subject in itself, which I will not pursue here. Let us have a closer look at the last biblical mention of night, which parallels its appearance at the time of Creation: at the end of Revelation, when the course of time is abolished for the elect who worship before the throne of God, it is said that night has no longer any reason to exist and, as the day also disappears, only the light of the Lord remains for eternity: «There will be no more night; they will do without lamp or sun to light themselves, for the Lord God will shed light on them and they will reign for ever and ever» (Rev. 22:5).

The analogical interpretation does not just characterize the *Bible moralisée*; it is common in the whole of medieval literary culture. Among many other testimonies, we can cite Hildegard of Bingen's *Liber Scivias* (I, 3) (fig. 5)[17]. Writing down the divine

17. Hildegarde de Bingen, *Scivias. 'Sache es voies' ou Livre des visions*, trad. française Pierre Monat, Paris, Cerf, 1996, 67-88. See Jean-Claude Schmitt, «Quand la lune nourrissait le temps avec du lait. Le temps du cosmos et des

words she heard in her vision, she not only describes and depicts the ovoid shape of the cosmos and the alignment of the earth – at the center of the world – with the seven planets from the closest to earth to the furthest (the Moon, Mercury, Venus, Sun, Mars, Jupiter, Saturn) but also gives an abundant theological and moral interpretation of the cosmic 'egg', as well as of the shadows that surround it, the winds that animate it and the fire that devours it, nourished by quotations from the Scriptures. Hildegard pays particular attention to the power of the planet of the night – the moon, in Latin, *luna*. The grammatical gender is feminine, and the visionary abbess thus assimilated the moon to a woman and even to a mother: the nourishing mother of time. Quoting the Psalms, she writes of the divine Creator:

> He made the moon to mark the times, the sun knows its setting (Ps. 104:19). Let us understand it this way: God decreed that the moon should change according to the time, in order to nourish all the moments of time, as a mother nourishes her children, first with milk, then with solid food. When it wanes, the moon has no strength, so it feeds time with milk, as it were. When it grows, the food it provides is solid. God decided that the sun would shine above the earth, before hiding under the earth. In the same way, man watches by day with his eyes open and sleeps by night with his eyes closed; man is thus earthly in his flesh, heavenly in his soul, in accordance with the lower and higher creatures, respectively. Man knows the evolution of time which marks the universal movement and life[18].

This text is admirable in every respect: for what it tells us about the medieval conception of night as an essential time of perpetual rebirth of the living forces of Creation, and more broadly about the analogical conception of the universe in

images chez Hildegarde de Bingen (1098-1179)», *Images Revues*, hors-série 1 (2008); Id., «Quand la lune nourrissait le temps avec du lait. Le temps du cosmos et des images chez Hildegarde de Bingen (1098-1179)», in *Traditions et temporalités des images*, ed. by Giovanni Careri et al., Paris, Editions de l'Ecole des Hautes Etudes en Sciences Sociales, 2009, 73-87, fig. 33-36.

18. *Ibid*, 84, according to the French translation: Hildegarde de Bingen, *Le Livre des œuvres divines: Visions*, présenté et traduit par Bernard Gorceix, Paris, Albin Michel, 1982, 116-17.

which the vital rhythm of the body and soul of man as a microcosm (the nursing mother, bed rest, sleep, and wakefulness) makes it possible to think of the whole cosmos (the alternation of the moon and the sun, night and day) as the creation of God.

Astronomical knowledge and encyclopedias, however, reveal a more exclusively scientific curiosity that seeks to clarify the link between the rotation of the sun and the moon around the earth – the alleged center of the world – and the alternation of light and shadow, of night and day. Many works could be cited here, for instance the *Tractatus de sphaera* (Treatise on the Sphere) by the English master of the University of Paris, Jean de Sacrobosco (died between 1244 and 1256). With its many astronomical diagrams, it had a strong influence until the seventeenth century. However, I will focus on a more modest work, which was nonetheless widely distributed. In the numerous manuscripts of Gossuin of Metz's *Image du monde*, an encyclopedic work written in French in the thirteenth century, diagrams show how the sunlight on one half of the earth plunges the other half into night (fig. 6)[19]. A miniature from one of these manuscripts reproduces in two superimposed squares the division between the two hemispheres of day and night as already observed in the *Bible moralisée*: the upper square has a background with red scrolls, which connote daylight, while the lower square has blue scrolls representing the shadow of night. At the top, we see the sun's luminous effect on the earth (shown in the center) in the morning (*solaus en orient* «sun in the east») and at noon (*solaus mi dis* «sun of midday»), while the shadow cast by the earth is indicated by black hatching. At the bottom, the positions are reversed: the sun in the west («solaus en occident») illuminates the earth in the evening, but then the sun passes under the earth (*solaus desous terre*), causing night on the opposite part of it.

This abstract and rather simplistic diagram does not take into account the phenomenon that plays a major role in social life, in agricultural production and liturgical rhythms: the unequal duration of day and night according to the seasons. The lengthening and shortening of days and nights during the year has been

19. Gossuin de Metz, *Image du monde*, Tours, Bibliothèque municipale, Ms 947, fol. 57.

observed since antiquity and measured precisely by astronomers and calendar specialists. But since it could not be explained, as it is today, within the framework of a Copernican conception of the rotation of the earth around the sun and the tilt of our planet on its axis, the Venerable Bede in the eighth century provided accurate measurements of the inequality of days and nights between the equinoxes and solstices. These calculations had an unexpected effect on the calendar of the Stammheim Missal, produced around 1170 in the abbey of Hildesheim in memory of its founder, Bernward (fig. 7-9)[20]. Normally, the iconography of the calendar shows the 12 successive signs of the zodiac and 12 labors of the months during the year. In the Stammheim Missal, the labors of the months are replaced each month by a disc divided into 24 slices representing the solar hours. The daytime hours are light; the night hours are dark. For each month, a sort of average length of night and day is used: in December, the month of the winter solstice (21 December), night lasts an average of 18 hours and day only six hours; in June, the month of the summer solstice, the reverse is true. In the months of March and September, which correspond to the spring and autumn equinoxes respectively, night and day are of equal length: 12 hours. In the meantime, night and day respectively are either increasing or decreasing. Let us stress the conventional character of these diagrams, which neglect the fact that the duration of day and night changes from one day to another and not from one month to another. It is nevertheless remarkable that such diagrams systematically illustrate the variation of astronomical rhythms. Why were these diagrams preferred to the traditional iconography of the calendar? Clearly, they would emphasize the major importance of diurnal and nocturnal rhythms for the liturgical uses of the abbey. But they had no practical use, since the time of the services changed each day. They had only an abstract and ideal value; they symbolically illustrated the role of rhythms, but they did not prescribe any liturgical use.

The rhythm of the day and night services that bring together communities of monks, canons, or nuns evolves day by day, not

20. *Stammheim Missal*, Los Angeles, The J. Paul Getty Museum, Ms 97 mg. 21, ff. 3v sq. (Hildesheim, c.1170).

from one month to the next. The eight canonical hours regulate the offices of the day, beginning with vigils, also called matins, which marks the middle of the night. This is followed by lauds, in the second half of the night, and prime, at sunrise. During the day, tierce, sext, and none follow, until vespers in the evening. After nightfall comes compline, and again matins follows in the middle of the night. The reduction in the length of the night from the spring equinox onwards tends to make matins the only truly nocturnal hour, absorbing compline on the one hand and lauds on the other. Conversely, in winter, only the offices of prime, tierce, sext, and none truly benefit from daylight.

In all cases, matins appears to be the pivot of circadian time and it was therefore imperative to determine the exact time at which to ring and celebrate matins. To measure the passage of time during the night and to fix this central moment, one could use a clepsydra or graduated candles, or make other astronomical observations.

A monastic manuscript from the eleventh century, originating perhaps from Fleury-sur-Loire[21], recommends positioning oneself at a predetermined point in the cloister (*locus deputatus*) to observe the position of the stars in relation to the monastic buildings: the alignment of the windows of the monks' dormitory, which could be counted one by one (*fenestras numerare*), the refectory, a chapel, and even a tree planted in the cloister were all used as reference points. The monk in charge of this observation, whom the texts call *significator horarum*, had the task of identifying the right moment to wake the other monks by means of a bell.

If the state of the sky allowed it, it was also possible to use a graduated instrument called *nocturlabe* or *nocturnal*. This astronomical instrument consists of a graduated disc with a sighting device in its center, which is aimed at the Polar Star; the disc

21. Giles Constable (ed.), «*Horologium stellare monasticum* (saec. XI)», in Kassius Hallinger (ed.), *Consuetudines benedictinae variae (saec. XI-saec. XIV)*, Siegburg, 1983-1986, 1-18; Eric Palazzo, «Le calendrier liturgique et l'espace monastique au Moyen Âge: l'*Horologium stellare monasticum* (XI^e siècle)», in Jacques Le Goff, Jean Lefort, Perrine Mane (eds.), *Les calendriers. Leurs enjeux dans l'espace et dans le temps*. Colloque de Cerisy-La-Salle, 1-8 juillet 2000, Paris, Somogy, 2002, 38-43; Schmitt, *Les rythmes au Moyen Âge*, 259.

also has an arm at the end of which a second star in the Big Dipper can be sighted. As the stars seem to revolve around the Polar Star during the night, the successive observation of this apparent movement makes it possible to know the hours by referring to the graduations of the disc[22].

An astronomical manuscript from the Mont-Saint-Michel, dated 1145-1199, presents several drawings showing how to measure various heights at a distance, such as that of a tree, but also that of a star above the horizon, by means of an astrolabe used «ad cognoscendas horas noctis que omnia per astrolapsum probare poteris» («in order to know the hours of the night you can all demonstrate thanks to the astrolabe») (fig. 10)[23]. The graduations engraved on the astrolabe's disc make it possible to follow the variation of the apparent height of a star during the night, and thus to know the time. It should be remembered that the astrolabe, in addition to its pedagogical functions or its use for navigation, served primarily to determine the time, by day and especially by night. Thus, the famous full-page frontispiece of the Psalter of Blanche of Castile shows an astronomer, flanked by two assistants noting his observations, while pointing vertically at the deep blue starry sky with an astrolabe (fig. 11)[24]. The many commentaries on this image neglect to point out that it represents a night scene dominated by the dark color of the sky, hemmed in by a lighter wavy fringe and populated by alternating blue and red stars. But something is missing from this night sky: the moon.

As the primordial Genesis account makes clear, the moon is the main 'luminary' that shines in the night by reflecting the light of the sun. The rising of the moon and its crossing of the night sky until it fades at dawn and yields to the sun's dominion contribute to the animation of the night. But the lunar rhythm is less important on a daily scale than on a monthly one. Each

22. Bernard Baudoux, *Traité du nocturlabe: une étude moderne d'un instrument ancien*, 2014, URL: https://ccs.saf-astronomie.fr/la-gnomonique/les-nocturlabes/.

23. Avranches, BM, Ms 235, fol. 32v. See Monique Dosdat, *L'enluminure romane au Mont Saint-Michel, X^e-XII^e siècle*, Avranches, 1991, 87.

24. Paris, Bibliothèque de l'Arsenal, Ms 1186 (vers 1220), fol. 1v.

page of the calendar notes in red letters the number of lunar days in each month, namely 29 or 30. The computation used to fix the date of the movable feast, especially the date of Easter, is based on the lunar cycle of 19 years as well as on the solar cycle of 28 years. The product of 19 by 28, i.e., 532 years, designates the «Great Year» at the end of which the moon and the sun return to their initial positions. The Easter tables establish the date of Easter for all the years within 532 years. The moon is thus a key element in the shifting organization of the cosmos, as demonstrated by a diagram in the *Liber floridus* of Lambert of Saint-Omer (before 1121) (fig. 12)[25]. The center of the diagram is most classical, showing the 'Isidorian scheme' of the world, centered on the word *Annus*. Around *Annus* the four elements (*aqua*, *ignis*, *aer*, *terra*), the four qualities (*humidus*, *siccus*, *calidus*, *frigidus*), the four seasons (*ver*, *estas*, *autumnus*, *hiems*), the four main winds (*septentrio*, *subsolannus*, *fabionus*, *nothus*) are arranged and juxtaposed. The four notable positions of the sun during the day are also indicated, but only the inscriptions *solis ortus* and *solis occasus* are legible: under *solis occasus* is also inscribed the word *luna*, which reminds us that the setting of the sun is the condition for the rising of the moon. What is most exceptional is that the 'Isidorian' cosmic diagram is completely surrounded by the representation of the 30-day monthly lunar cycle of the moon, starting at the bottom and rotating from left to right: the numbering in Roman numerals, from I to XXX, of the forms of the moon during the month shows first the growth of the crescent moon until the full moon (XIV) and then its decrease and complete disappearance before the cycle resumes[26]. The nocturnal character of this cycle is emphasized by the white light of the moon against the dark blue background of the circular band.

The measurement of the rhythm of the night, based on the observation of the stars and the movement of the moon, and, more specifically, the determination of the middle of the night in order to ring the bell that called monks or nuns to the matins

25. Lambert of Saint-Omer, *Liber floridus* (avant 1121), Ghent, Universiteitsbibliotheek, Ms 92, fol. 25v.

26. Strangely enough, the crescent of the moon keeps the same orientation during the whole month.

service, were of crucial importance. This was particularly true for religious communities since their members were obliged to pray almost continuously. Therefore, they had to interrupt their sleep to celebrate matins. The autobiographical testimony of the Cistercian abbot Richalm of Schöntal (who died in 1219 in his abbey near Würzburg) shows how painfully this obligation of the rule could be felt. It is true that demons, day and night, constantly beset Richalm. They disturbed his sleep with nightmares and, above all, tried to prevent him from falling asleep when he desired a little rest; the unfortunate man tossed and turned in his bed before finally finding sleep at the very moment when he had to get up for matins. Then the demons tried to dissuade him from leaving his bed. When he finally got out of bed, he had to go down the stairs with the other monks from the dormitory to the church choir. On the stairs, new pitfalls awaited them, for the demons were on the lookout and took advantage of any moment of weakness in the monks to make them stumble. Finally, when the abbot took his seat in the stalls, he was seized by sleep at the very moment he had to stand upright to pray and sing[27].

The day and night services consisted of several songs and prayers, including, first of all, the chanting of a certain number of psalm verses. The psalter is to be recited in its entirety in a single week, with a certain number of verses at each of the eight canonical hours of each of the seven days of the week. This rule and the distribution of the psalms from one canonical hour to another and from one day to another around the week have not changed much since the Rule of Saint Benedict at the beginning of the sixth century[28]. The Rule underlines the central role of the matins office in the very middle of the night. More precisely, the matins service of the *feria prima* (Sunday) marks the starting point of the weekly cycle, which resumes each midnight with the obligation to sing a new group of psalms. The first psalm

27. Jean-Claude Schmitt, *Le cloître des ombres, suivi de la traduction française du Livre des révélations de Richalm de Schöntal avec la collaboration de Gisèle Besson*, Paris, Gallimard, 2021, 198 (and on time in general, 83-91). See the Latin text: Richalm von Schöntal, *Liber revelationum*, ed. by Paul Gerhard Schmidt, Hanover, Hahnsche Buchhandlung, 2009, *passim*.

28. Schmitt, *Les rythmes au Moyen Âge*, 253-65 («Le creuset monastique»).

sung at each matins service is usually distinguished by a historiated illumination contrasting in size and iconography with the simple, ornate initials of the other psalms. There is thus a strict correspondence between the division of the psalter, the iconography of the historiated initials of the main psalms (1, 26, 38, 52, 68, 80, 97, 109), and the leading role of the matins service throughout the week. Let us summarize this rhythm, which is both chronological and iconographic, in a table:

Matins of Sunday (*feria prima*): Ps. 1 (*Beatus vir*)
Matins of Monday (*feria secunda*): Ps. 26 (*Dominus illuminatio mea*)
Matins of Tuesday (*feria tertia*): Ps. 38 (*Dixi custodiam vias meas*)
Matins of Wednesday (*feria quarta*): Ps. 52 (*Dixit insipiens in corde suo*)
Matins of Thursday (*feria quinta*): Ps. 68 (*Salvum me fac Deus*)
Matins of Friday (*feria sexta*): Ps. 80 (*Exultate Deo adjutori nostro*)
Matins of Saturday (*feria septima*): Ps. 97 (*Cantate domino canticum novum*)
Vespers of Sunday (*feria prima*): Ps. 109 (*Dixit dominus… sede a dextris meis*)

As we can see, the images contribute to the rhythm of the night for the monks and nuns obliged to chant vigils (fig. 13). They helped to create a religious imagination of the night, by associating recurring images such as the *Beatus vir* of Psalm 1 or the *Dominus illuminatio mea* of Psalm 26 with specific moments of the night. The same principle, only declined differently, can be found in the illustrated books of hours, which were not intended for monks but rather for the lay aristocracy[29]. Of course, these precious manuscripts had many other functions than the individual prayer of noble and rich people, especially at night, since prayer was not usually their activity. They delegated to their chaplains the task of praying for them and their families. However, as in the psalters, although following a different logic, the iconography of the books of hours marks the time of the offices, and once again the middle of the night, i.e., the office of matins, is the starting point of the whole circadian cycle. The Hours of the Virgin, which make up the most important part of the book,

29. Baltimore, Walter Art Gallery, ms. 288 (France, c.1425–1430).

reproduce the most significant moments of her life, beginning with the Annunciation, whose meditation occupies the office of matins. The following hours are illustrated respectively by the Visitation at lauds, the Nativity at prime, the Annunciation to the shepherds at tierce, the Adoration of the Magi at sext, the Presentation to the Temple at none, the Flight into Egypt at vespers, and the Coronation of the Virgin at compline. The Incarnation of the Savior corresponds to the middle of the night – the office of matins, which is, indeed, the beginning of everything.

To conclude this brief presentation of the rhythms of the night and their figuration in images in the Middle Ages, we should recall Frank Rexroth's book title, *Das Milieu der Nacht*[30]. He intended «Milieu» in its sociological sense of 'social milieu.' I would also understand the word in its temporal meaning, as the center of the night, the hour dividing night into two equal halves: in that sense, the «middle of the night» was the object of particular attention and precise measures in the Middle Ages, because it controlled not only the rhythm of the night, but the entire circadian cycle of the eight canonical hours and the offices of each day of the week. From «midnight», this hour, which, in another context, is also said to be «the hour of crime», the human activities of waking and sleeping, praying and dreaming were organized in a regulated progression. The rhythms of the night are better known in the case of ecclesiastics than in the case of simple laymen, because among the former they have been the subject of precise prescriptions and observations. But the principle of organizing time and the importance of the «middle of the night» were not specific to monks. In the *Ménagier de Paris*, a fifteenth-century French treatise on domestic economy, the anonymous author, a Parisian bourgeois, undertook to educate his fifteen-year-old wife[31]. In the first few lines of the book, he tells her about the rising of the day and how to understand it: for laymen like him, it is the «natural day» which begins at «morning», that is at sunrise. Even if the French word «*matin*»

30. Cf. above note 2.

31. *Le Mesnagier de Paris*, texte établi par Georgina M. Bereton et Janet M. Ferrier, trad. et notes par Karin Ueltschi, Paris, Le Livre de Poche, 1994, 35-36.

(i.e., morning) and the liturgical term «matins» are analogous, his young bride should not imitate the monks of the neighboring monastery, who get up in the middle of the night, at the hour of «matins». She is allowed to wait in her bed until «*matin*», next morning:

> That is why I said that «morning» [matin] comes from «matins.» I intend to have said it because matins is sounded to raise the religious to say matins and praise God, and not to say that you, my nice sister, and the women who are married, must get up at this hour[32].

So, whenever his wife hears the bell of the neighboring monastery ringing for matins in the middle of the night, she should not get up, but should simply recite an oration before going back to sleep. Later, at sunrise, she will say to the Lord and to Our Lady two prayers *suitable for awakening or rising*. The social uses of the night vary from one social «Milieu» to another, the very scansion of time differs, but the recurrent principle of the division of time at midnight is the prevailing principle.

32. *Ibid.*, quoted by Schmitt, *Les rythmes au Moyen Âge*, 337.

ABSTRACT

Jean-Claude Schmitt, *The Rhythms of the Medieval Night*

According to medieval conceptions, night is more than just darkness resulting from the rotation of the sun around the earth. In a world before the electricity revolution, a large number of documents, particularly iconographic ones, show how it was invested with multiple values (many of them inspired by the Bible, from Genesis, when God separates light from darkness, to Revelation, when the eternity of divine light takes the place of the alternation of night and day) and gave rise to an imaginary world of its own, where fear of demons and the dead mingled with fantasies of the witches' sabbath; it also justified legal regulations of productive activities, with urban trades being opposed in principle to night work, except in cases of necessity; above all, it was the subject of temporal measures based on the observation of the apparent movement of the stars and the phases of the moon, which determined the rhythm, varying from day to day, of the canonical *horae*; these controlled the circadian succession of offices and the recitation of the psalms. In all cases, the middle of the night was a critical time, requiring the monks in particular to wake up to sing *matins* or *vigils*, halfway between sunset and sunrise.

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Fig. 2. Agony of Christ in the Garden. Breviary, Besançon, Bibliothèque municipale, Ms. 68, f. 28 (France, c. 1428).

Fig. 3. God as geometer. *Bible Moralisée* in French. Vienna, Österreichische Nationalbibliothek, Codex 2445, f. 1r (Paris, c. 1220).

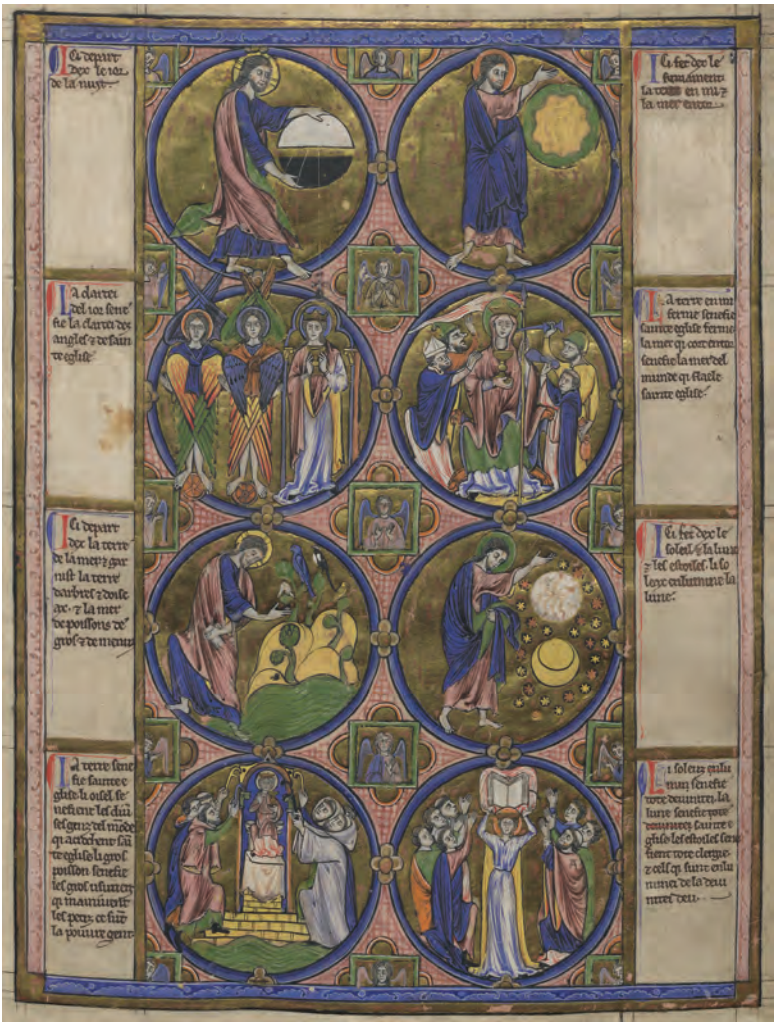

Fig. 4. The first four days of Creation moralized. *Bible Moralisée* in French. Vienna, Österreichische Nationalbibliothek, Codex 2445, f. 1v (Paris, c. 1220).

Fig. 5. The Crescent of the Moon within the Cosmic Egg. Hildegard of Bingen, *Liber Scivias*, I, 3 (before 1179).

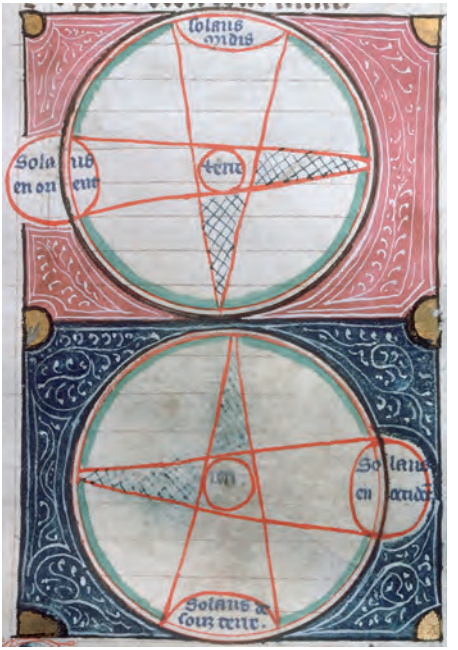

Fig. 6. Astronomic chart. Gossuin de Metz, *L'Image du monde*, Tours, Bibliothèque municipale, Ms. 647, f. 57 (France, c. 1300).

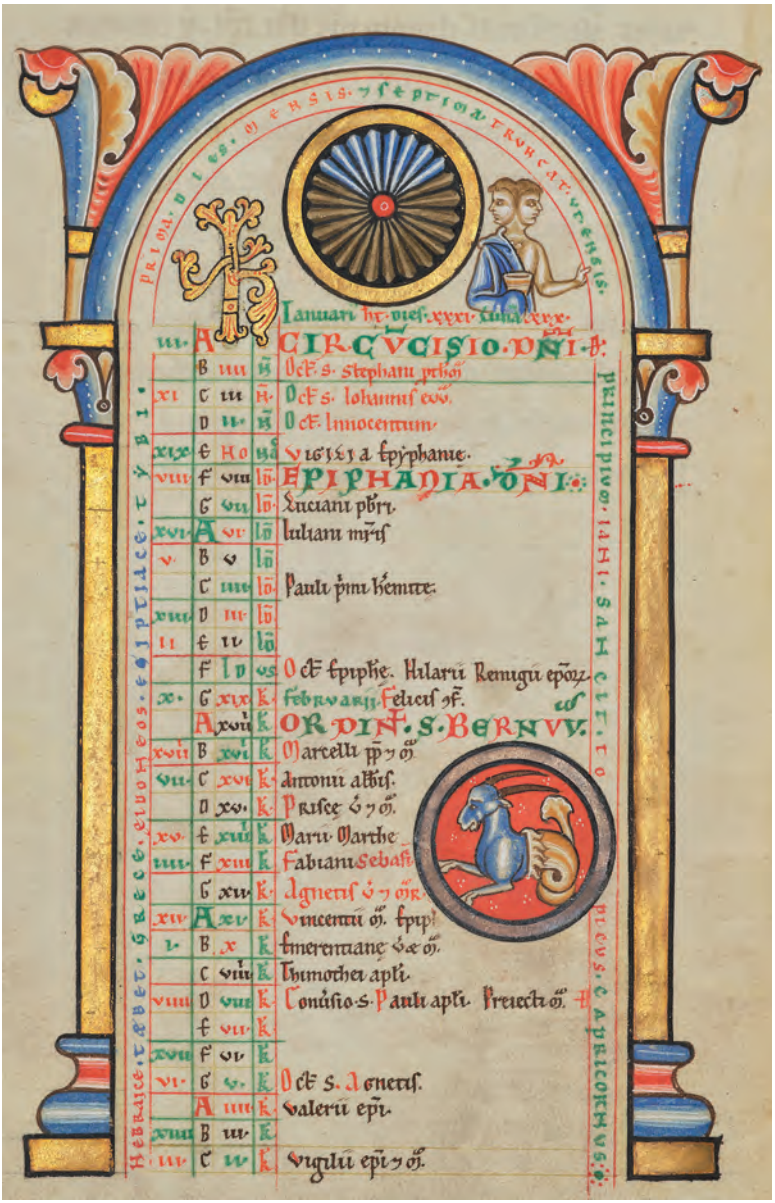

Fig. 7.

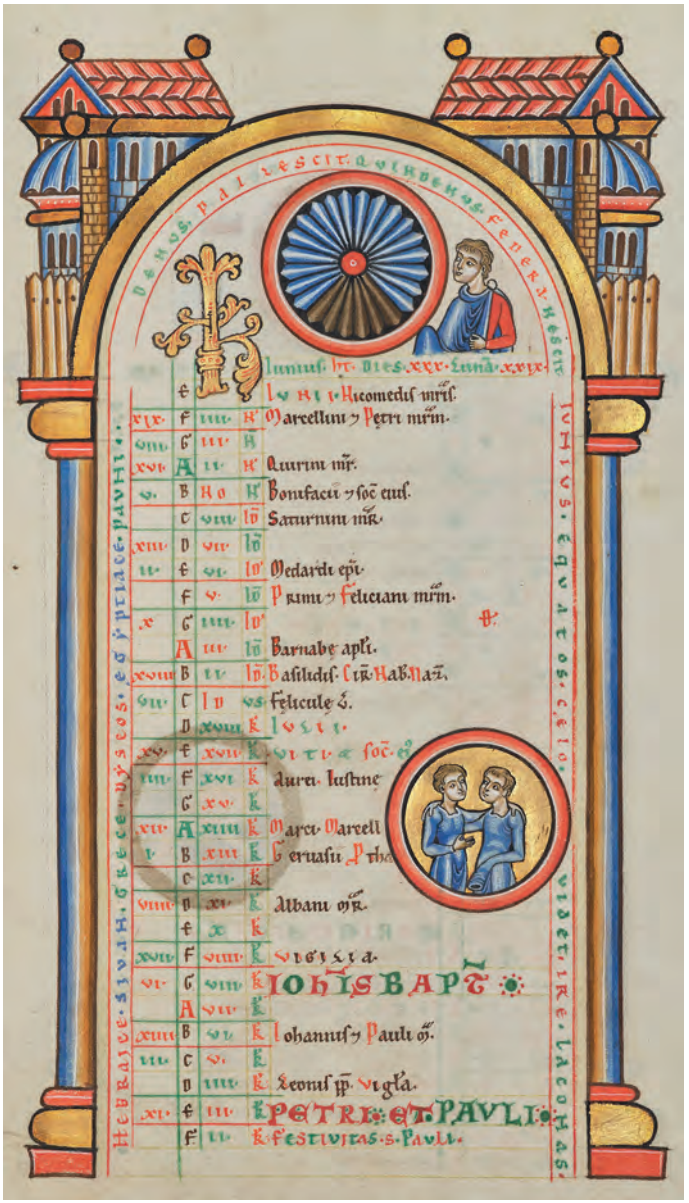

Fig. 8.

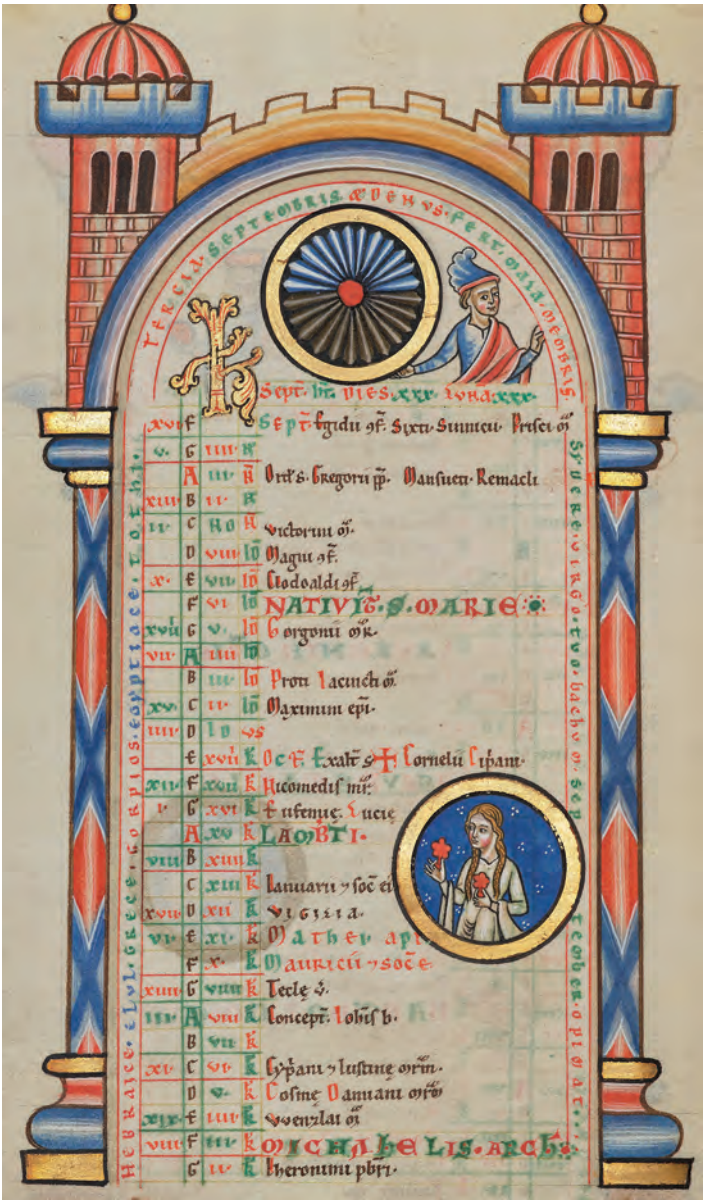

Fig. 9.

Figs. 7–9. The variable length of the night according to the calendar of the Stammheim Missal: the average number of solar hours for January (8 hours daylight, 16 hours night), June (18 hours daylight, 6 hours night) and September (12 hours daylight, 12 hours night). Los Angeles, The J. Paul Getty Museum, Ms. 97 mg. 21, ff. 3v, 6r, 7v (Hildesheim, c. 1170).

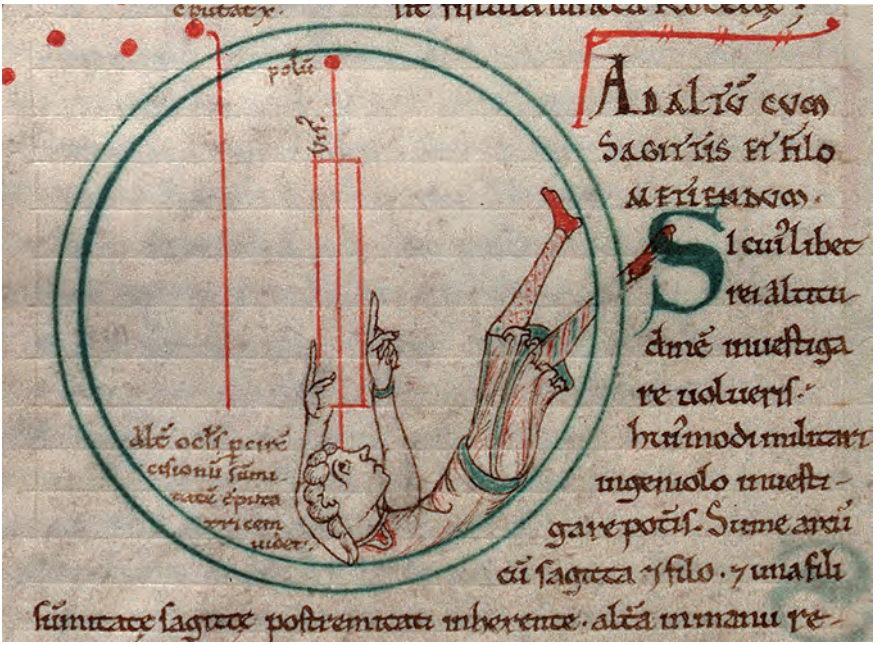

Fig. 10. Measuring the height of a tree and the height of a star in the night above the horizon. Astronomical opuscules. Avranches, Bibliothèque municipale, Ms. 235, f. 32v (Mont-Saint-Michel, 12th century).

Fig. 11a.

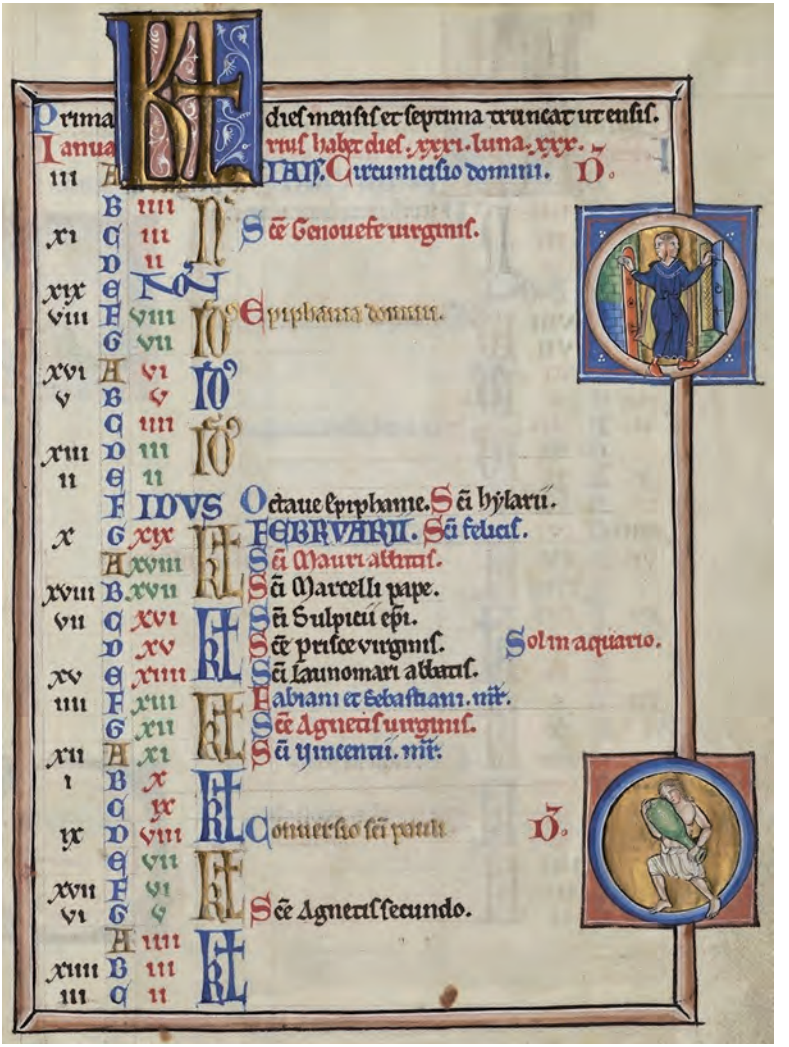

Fig. 11b.

Fig. 11a-b. The Astronomer and the Month of January. Calendar of the Psalter of Queen of France Blanche de Castille, Paris, Bibliothèque de l'Arsenal, Ms. 1186, ff. 1v-2r (Paris, c. 1220).

Fig. 12. The "Isidorian Diagram" of the cosmos surrounded by the monthly cycle of the moon (from I to XXX). Lambert of Saint-Omer, *Liber floridus*, Ghent, Universiteitsbibliotheek, Ms. 92, f. 25v (Saint-Omer, before 1120).

Fig. 13. Hours of the Virgin: Lauds. Visitation. Border: John the Baptist's Birth, Circumcision, and Entering the Wilderness. Baltimore, Walters Art Gallery, Ms. Walters 288 (Paris, c. 1425–1430).