

THE EARLY MEDIEVAL IMAGE OF THE EARTH AND ITS TRANSFORMATIONS IN THE *LIBER DIVINORUM OPERUM* (VISIO II.1.1–7)*

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Abstract

The fifth vision (II.1) of Hildegard's of Bingen *Liber divinorum operum* presents a model of worldly geography. The present paper examines possible early medieval referents for this vision, such as the idea of the five climatic zones of the world, the place and form of the earth, and the Isidorian rotae of the year and of the mundus-annus-homo. These antecedents, transmitted through works on natural knowledge, are deeply transformed in Hildegard's vision. She describes first a distinct model of the world as having five parts and then correlates these parts with the five senses and the human acts. Furthermore, the climatic zones are transformed into places of reward and condemnation in the afterlife. Through the five senses Hildegard accomplishes thus a shift from the outer geography towards the soul and its actions.

Key Words

Early medieval science; Isidore of Sevilla; Bede Venerabilis; Medieval geography
Hildegard of Bingen; Five senses



Since the publication of Hans Liebeschütz's monograph almost one hundred years ago,¹ Hildegard of Bingen's cosmology has been at the centre of numerous studies. The relationship between the macro- and microcosmos, the place of the human

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¹ HANS LIEBESCHÜTZ, *Das allegorische Weltbild der heiligen Hildegard von Bingen*, B. G. Teubner, Leipzig 1930 (Studien der Bibliothek Warburg, 16), p. 16.

being within creation, and the deep interaction between creation and the History of Salvation are among the many themes that have been considered. Most publications that deal with Hildegard's view of the universe concentrate on how she conceives of the universe in two different forms: the universe being in the form of an egg as expressed in her first visionary work, *Scivias* (I.3), and in the form of a wheel (*rota*) in the first four visions of the *Liber divinorum operum* (hereafter, *LDO*).²

While *Scivias* can be characterized as a novel interpretation of the History of Salvation and the *Liber vite meritorum* as an investigation of the moral powers within the human soul, Hildegard's third and last visionary book, the *LDO*, displays a greater interest in the composition of the world and of the human being. When commenting on the first four visions of the *LDO*, scholars usually focus on supra lunar cosmology. The fifth vision (II.1) offers, in contrast, a model of worldly geography. In the present paper, I will consider possible early medieval referents for this vision, such as the idea of the five climatic zones of the world, the place and form of the earth, and the Isidorian *rotae* of the year and of the *mundus-annus-homo*. These antecedents, transmitted through works on natural knowledge, are deeply transformed in Hildegard's vision. She envisions first a distinct model of the world as having five parts and then correlates these parts with the five senses, and the actions that the soul takes through the sensory organs. The climatic zones are also transformed into places of reward and condemnation. Hildegard thus appropriates and reshapes a novel feature of twelfth-century cosmology: the incorporation of the afterlife into the physical cosmos.³ In addition, the correspondence of the micro-macrocosm moves away from the elementary physical makeup of the world and the human body to concentrate on the idiosyncratic characteristics attributed to the zones and their relationship to the five senses, seen as the basis to the moral human constitution. Through the five senses, a shift from the outer geography towards the soul and its actions is also accomplished.

² For a well-documented discussion (until 2000), see GIULIO PIACENTINI, « L'universo e l'uomo nel 'Liber divinorum operum' di Hildegarda di Bingen », *Rivista di filosofia neoscolastica*, 94 (2002), p. 195–236. Cf. also MONIKA KLAES, « Zu Schau und Deutung des Kosmos bei Hildegard von Bingen », in ADELGUNDIS FÜHRKÖTTER (ed.), *Kosmos und Mensch aus der Sicht Hildegards von Bingen*, Gesellschaft für Mittelrheinische Kirchengeschichte, Mainz 1987 (Quellen und Abhandlungen zur mittelrheinischen Kirchengeschichte, 60), p. 37–124; GEORGINA GONZÁLEZ RABASSÓ, « Subtilitates naturae: Continuitats i ruptures a la cosmologia d'Hildegarda de Bingen (1098–1179) », Ph.D. Diss. Universitat de Barcelona, 2015; JOSÉ C. SANTOS PAZ, « Visiones hildegardianas del cosmos: Del 'Scivias' al 'Liber divinorum operum' », *Studi Medievali*, 52 (2011), p. 213–241. For the differences between the two images regarding their composition, see DINAH WOUTERS, *Allegorical Form and Theory in Hildegard of Bingen's Books of Visions*, Springer, Cham 2022 (The New Middle Ages), p. 128–135.

³ Almost all works that deal with the fifth vision concentrate on this subject, see footnote 110 below.

I. Preliminary considerations: Hildegard's knowledge and her use of texts

The difficulty in establishing Hildegard's sources is well known. For one, aside from biblical quotations, she does not identify any. Plus, it is not possible to confirm which books were present in the libraries of St Disibod and St Rupertsberg, the two monasteries where she lived.⁴ Thus the origin of her scientific knowledge, discussed by Hans Liebeschütz, is still the subject of speculation.⁵ In fact, there could be multiple sources: she may have had direct access to works or extracts in compilations in the libraries of her cloisters or in the libraries of monasteries or chapters which she was in contact with, or she may have accessed this knowledge through oral communication.⁶ The latter option was proposed by Charles Burnett some decades ago.⁷ More recently, Justin Stover has underscored the role of conversation and intellectual exchange for Hildegard's knowledge. An indirect acquaintance with ancient and contemporary monastic and scholastic sources, subjects and methods would account for her terminology as well as for certain discussions and methods in her oeuvre.⁸ Furthermore, topics

⁴ For an extensive discussion with further literature, see MARÍA J. ORTÚZAR ESCUDERO, *Die Sinne in den Schriften Hildegards von Bingen: Ein Beitrag zur Geschichte der Sinneswahrnehmung*, Hiersemann, Stuttgart 2016 (Monographien zur Geschichte des Mittelalters, 62), p. 119–122; RAINER BERNDT, MAURA ZÁTONYI, *Glaubensheil: Wegweisung ins Christentum gemäss der Lehre Hildegards von Bingen*, Aschendorff Verlag, Münster 2013 (Erudiri Sapientia, 10), p. 95–98.

⁵ See, above all, PETER DRONKE, « Introduction », in Hildegardis Bingenensis, *Liber divinorum operum*, ed. Albert Derolez, Brepols, Turnhout 1996 (Corpus Christianorum Continuatio mediaevalis, 92), p. vii–cxvii. See also MICHAEL EMBACH, « Hildegard von Bingen (1098–1179) – kryptische Gelehrsamkeit und rhetorischer Sprachgestus », in EDELTRAUD KLUETING, HARM KLUETING (eds.), *Fromme Frauen als gelehrte Frauen. Bildung, Wissenschaft und Kunst im weiblichen Religiosentum des Mittelalters und der Neuzeit*, Erzbischöfliche Diözesan- u. Dombibliothek, Köln 2010 (Libelli Rhenani, 7), p. 128–150; JUSTIN A. STOVER, « Hildegard, the Schools, and their Critics », in BEVERLY M. KIENZLE, DEBRA L. STOUT, GEORGE P. FERZOCO (eds.), *A Companion to Hildegard of Bingen*, Brill, Leiden 2014 (Brill's Companions to the Christian Tradition, 6), p. 109–135. For the sources of her two writings of nature, partly composed by different hands in different times, see LAURENCE MOULINIER, « Introduction », in BEATE HILDEGARDIS, *Cause et cure*, Akademie Verlag, Berlin 2003 (Rarissima mediaevalia. Opera Latina, 1), p. xi–cxvii, esp. p. lxiii–ci; LAURENCE MOULINIER, « Ein Präzedenzfall der Kompendien-Literatur. Die Quellen der natur- und heilkundlichen Schriften Hildegards von Bingen », in EDELTRAUD FORSTER (ed.), *Hildegard von Bingen. Prophetin durch die Zeiten*, Herder, Freiburg i. Br. 1997, p. 431–447; LAURENCE MOULINIER-BROGI, « La connaissance de la Nature selon Hildegard de Bingen, entre Sagesse de Dieu et savoir d'une moniale », in ALESSANDRA BARTOLOMEI ROMAGNOLI, SOFIA BOESCH GAJANO (eds.), *'Speculum futurorum temporum'. Ildegarda di Bingen tra agiografia e memoria*, Istituto Storico Italiano per il Medio Evo, Rome 2019 (Nuovi studi storici, 115), p. 195–214.

⁶ MOULINIER, « Ein Präzedenzfall der Kompendien-Literatur », p. 435.

⁷ CHARLES BURNETT, « Hildegard of Bingen and the Science of the Stars », in CHARLES BURNETT, PETER DRONKE (eds.), *Hildegard of Bingen. The Context of her Thought and Art*, Warburg Institute, London 1998 (Warburg Institute colloquia, 4), p. 111–120, here p. 120.

⁸ STOVER, « Hildegard, the Schools, and their Critics ».

in Hildegard's works such as *Genesis* and cosmogony and elemental cosmology coincide with « preoccupations of early 12th-century scholars like William of Conches, Thierry of Chartres, and Peter Abelard ».⁹ Her interest in the « role of human reason in moral decision making, cosmological speculation, and theology » brings her closer to William of St Thierry.¹⁰

With regard to the *LDO*, Peter Dronke has identified several possible referents for the four cosmological visions (I.1–4): « an impressive range of Christian Latin writings », Lactantius' *De opificio Dei*, the *Liber Nemroth*, Aethicus Ister' *Cosmographia* and Calcidius' *Commentary on Timaeus* – and many others.¹¹ The information Dronke provides for the chapters on the image of the earth (II.1) is much more scarce: it concentrates on possible sources of the word *ponderositas*, an expression that Hildegard probably adopted from other authors.¹² Furthermore, the *apparatus fontium* identifies solely sources for some passages which describe the places of chastisement.¹³

The discussion about Hildegard's sources probably reveals more about our way of learning than it does about hers. As already observed, Hildegard's understanding of nature and cosmology is much indebted to oral exchange – with the monks of Disibodenberg, with her secretaries Volmar and Guibert of Gembloux, with her spiritual daughters, with messengers who carried letters and with Church dignitaries who visited Rupertsberg.¹⁴ Consequently, we have good reason to assume that, at least indirectly, well-known sources on nature and cosmology shaped Hildegard's knowledge. In order to understand her image of the earth, we should examine *De natura rerum* and the *Etymologies* of Isidore of Sevilla,

⁹ STOVER, « Hildegard, the Schools, and their Critics », p. 127.

¹⁰ STOVER, « Hildegard, the Schools, and their Critics », p. 127–128.

¹¹ DRONKE, « Introduction », p. xvii–xxiv. The case for Hildegard's use of Calcidius is made by GEORGINA RABASSÓ, « La posible influencia del Timaeus en los planteamientos cosmológicos del 'Liber Diuinorum Operum' de Hildegarda de Bingen », in JOSÉ L. FUERTES HERREROS, ÁNGEL PONCELA GONZÁLEZ (eds.), *De Natura*, Húmus, Ribeirão 2015 (Textos e estudos de filosofia medieval, 8), vol. II, p. 719–728.

¹² The word occurs in Eurigena's *Periphyseon*, in writings of Gilbert of Poitiers, in Robert of Melun, and in the translations of Avicenna (*Metaphysics*) and Avicebrol's (*Fons vitae*). See DRONKE, « Introduction », p. xxvi.

¹³ Descriptions of the places of chastisement are to be read in her *Liber vite meritorum* and *Cause et Cure* as well as in Gregor's *Dialogi* and in Bede's *Historia ecclesiastica*.

¹⁴ For visitors at the Rupertsberg and the importance of messengers, see ALFRED HAVERKAMP, « Hildegard von Disibodenberg-Bingen. Von der Peripherie zum Zentrum », in ALFRED HAVERKAMP (ed.), *Hildegard von Bingen in ihrem historischen Umfeld. Internationaler wissenschaftlicher Kongress zum 900jährigen Jubiläum*, von Zabern, Mainz 2000, p. 15–69, here p. 66–69; ORTÚZAR ESCUDERO, *Die Sinne in den Schriften Hildegards*, p. 389. The case of the *philosophus* of Mainz that lived in Rupertsberg is often referred to in this context, see STOVER, « Hildegard, the Schools, and their Critics », p. 111–112; MOULINIER-BROGI, « La connaissance de la Nature selon Hildegard de Bingen », p. 206; RABASSÓ, « La posible influencia del Timaeus », p. 724.

Beda the Venerable's *De natura rerum* and even the *Commentary to the Dream of Scipio* of Macrobius. In what follows, my focus is not on these works as such but on how Hildegard appropriates them. My treatment is therefore deliberately descriptive.

II. *The earth in early medieval cosmography*

The *De natura rerum* of Isidore of Sevilla can be considered the first medieval cosmography, for it is a significant contribution to the establishment of a Christianized heaven through a simple arrangement of textual excerpts.¹⁵ The short treatise was well received in Western Europe, becoming « a standard point of reference » and « setting a template for discussion » in the field of the knowledge of nature.¹⁶

The image of the world is considered here in three chapters (9–11). *Mundus* is defined as everything in heaven and earth. In a mystical sense, however, this word signifies *homo*, because the human being is a smaller world, being composed of the same four elements of which the world is built.¹⁷ Chapter 10 introduces the notion of the world as divided by five climatic zones, which are imagined as five circles. To illustrate it, Isidore compares each zone with one of the five fingers:

But let us imagine them in the likeness of our right hand, so that the thumb is the Arctic circle, uninhabitable because of the cold; the second finger is the summer circle, temperate and habitable; the middle finger is the equatorial circle, torrid and uninhabitable; the fourth finger is the winter circle, temperate and habitable; the little finger is the Antarctic circle, cold and uninhabitable. The first of these circles

¹⁵ BARBARA OBRIST, « La cosmologie du Haut Moyen Age, le statut de la connaissance philosophique et la question d'un univers christianisé », in *La conoscenza scientifica nell'Alto Medioevo*, Fondazione Centro italiano di studi sull'alto Medioevo, Spoleto 2020 (Settimane di studio della Fondazione Centro italiano di studi sull'alto Medioevo, 67), vol. I, p. 53–112, here p. 86.

¹⁶ ANDREW T. FEAR, « Putting the Pieces Back Together: Isidore and the *Natura Rerum* », in ANDREW T. FEAR, JAIMIE WOOD (eds.), *Isidore of Seville and his Reception in the Early Middle Ages: Transmitting and Transforming Knowledge*, Amsterdam University Press, Amsterdam 2016 (Late Antique and Early Medieval Iberia, 2), p. 75–92, here p. 75.

¹⁷ ISIDORUS HISPALENSIS, *De natura rerum* IX.1–2, in ISIDORE DE SÉVILLE, *Traité de la nature: Suivi de l'épître en vers du roi Sisebut à Isidor*, ed. Jacques Fontaine, Féret, Bordeaux 1960 (Bibliothèque de l'École des hautes études hispaniques, 28), p. 165–237: « Mundus est uniuersitas omnis quae constat ex caelo et terra. De quo Paulus apostolus ait: praeterit enim figura huius mundi. Secundum mysticum autem sensum, mundus competenter homo significatur, quia sicut ille ex quattuor concretus est elementis, ita et iste ex quattuor constat humoribus uno temperamento conmixtis. Vnde et ueteres hominem in communione fabricae mundi constituerunt, siquidem graece mundus cosmos, homo autem micros cosmos, id est minor mundus est appellatus ». See FEAR, « Putting the Pieces Back Together », p. 90.

is the northern; the second, the solstitial; the third, the equinoctial; the fourth, the winter; and the fifth, the southern.¹⁸

In using this image – as Calvin Kendall and Faith Wallis comment – Isidore shifts from « thinking of the celestial sphere to thinking of the Earth, and instead of notional circles projected onto the heavens he is visualizing climatic zones on our planet ».¹⁹ Afterwards, he returns to the heaven spheres, defining the first circle of the celestial sphere as the northern and the fifth as the southern, and the others as « imaginary lines on the inner surface of the spherical universe ».²⁰ These lines refer to the trajectory of the sun: the second is the solstitial, the third the equinoctial, the fourth the hyemial.²¹ While the equinoctial circle is uninhabitable because of the excessive heat provoked by the sun « as it courses through the middle of the heavens », the northern and southern circles are inhabited because they « are placed far from the course of the sun, and are laid waste by the excessive cold of the heavens and the icy blasts of the winds ».²² The circles placed in the east and in the west are habitable, since they receive from two other circles both cold and heat.²³ A diagram, the *rota circulorum mundi*,²⁴ summarizes this information.²⁵ The diagram usually shows a framing circle that contains five

¹⁸ ISIDORUS HISPALENSIS, *De natura rerum*, X.1: « Sed fingamus eas in modum dexteræ nostræ, ut pollex sit circulus arcticos, frigore inhabitabilis, secundus circulus therinos, temperatus habitabilis; medius circulus isemerinos, torridus inhabitabilis; quartus circulus xemerinos, temperatus habitabilis, minimus circulus antarcticos, frigidus inhabitabilis ». The translation follows ISIDORE OF SEVILLE, *On the Nature of Things*, ed. CALVIN B. KENDALL, FAITH WALLIS, Liverpool University Press, Liverpool 2016 (Translated Texts for Historians, 66), p. 128.

¹⁹ CALVIN B. KENDALL, FAITH WALLIS, « Commentary », in ISIDORE OF SEVILLE, *On the Nature of Things*, p. 177–253, here p. 194.

²⁰ KENDALL, WALLIS, « Commentary », p. 195.

²¹ ISIDORUS HISPALENSIS, *De natura rerum*, X.2: « Horum primus septentrionalis est, secundus solistitialis, tertius æquinoctialis, quartus hiemalis, quintus australis ».

²² ISIDORUS HISPALENSIS, *De natura rerum*, X. 3: « Sed ideo æquinoctialis circulus inhabitabilis est, quia sol per medium caelum currens nimium his locis facit feruorem, ita ut nec fruges ibi nascantur propter exustam terram, nec homines propter nimium ardorem habitare permittantur. At contra septentrionalis et australis circuli sibi coniuncti idcirco non habitantur quia a cursu solis longe positi sunt, nimioque caeli rigore uentorumque gelidis flatibus contabescunt ». For the translation, see ISIDORE OF SEVILLE, *On the Nature of Things*, p. 129.

²³ ISIDORUS HISPALENSIS, *De natura rerum*, X. 4: « Solistitialis uero circulus, qui in oriente inter septentrionalem et aestiuum est conlocatus, uel iste qui in occidente inter aestiuum et australem positus est, ideo temperati sunt eo quod ex uno circulo rigorem, ex altero calorem habeant ».

²⁴ Most of the manuscripts of *De natura rerum* contain the following seven diagrams: 1. *Rota mensium*, 2. *Rota anni*, 3. *Rota circulorum mundi* 4. *Cybus elementorum*, 5. *Rota mundi, anni, hominis* 6. *Rota planetarum*, 7. *Rota uentorum*; see CALVIN B. KENDALL, FAITH WALLIS, « Introduction », in ISIDORE OF SEVILLE, *On the Nature of Things*, p. 1–102, here p. 28–29.

²⁵ ISIDORUS HISPALENSIS, *De natura rerum* X.2: « Quorum circulorum diuisiones talis distinguit figura: Primus circulus arcticos frigore inhabitabilis. Secundus circulus therinos temperatus habitabilis.

circles or petals positioned around a central circle. This depiction has caused some perplexity, since it alters the simile between the fingers and the zones: while the thumb and little finger in an extended hand exemplify the distance between the Arctic and the Antarctic circles, these circles are represented as contiguous in the diagrams (see, for instance, Figure 1).²⁶ The notion of the five heavenly spheres influencing on the zones of the world was also transmitted by the *Etymologies* of Isidore in the books of *Mathematics*, which contains a section on astronomy (III.44), and *The World and its Parts* (XIII.6).

The following chapter on « the parts of the world » defines the four parts of the world as the four elements: fire, air, water, and earth.²⁷ An explanation of the Platonic qualities of the elements (thin-thick; mobile-immobile; sharp-blunt) and its corresponding diagram,²⁸ is followed by an exposition on the Hippocratic qualities, as rendered by Saint Ambrose in his *Hexameron*: earth is dry and cold, water is cold and moist, air is hot and moist, and fire is hot and dry. Some qualities are shared by different elements, allowing them to mingle: earth is linked to water « by the affinity of their cold », water to air through moisture, air to fire by heat, and fire to earth by dryness. In this manner, the elements are associated with each other in a circuit and « gather themselves together in harmonious union ».²⁹ The

Medius circulus isemerinos torridus inhabitabilis. Quartus circulus xheimerinos temperatus habitabilis. Quintus circulus antarcticos frigidus inhabitabilis ».

²⁶ See KENDALL, WALLIS, « Commentary », p. 195–196, and the discussion of this image in Boulogne-sur-Mer, Bibliothèque municipale, MS 188, fol. 30r, in BRUCE S. EASTWOOD, *Ordering the Heavens: Roman Astronomy and Cosmology in the Carolingian Renaissance*, Brill, Leiden – Boston 2007 (Medieval and Early Modern Science, 8), p. 415–416.

²⁷ ISIDORUS HISPALENSIS, *De natura rerum*, XI.1: « Partes mundi quattuor sunt: ignis, aer, aqua, terra ».

²⁸ ISIDORUS HISPALENSIS, *De natura rerum*, XI.1: « Quarum haec est natura: ignis tenuis, acutus et mobilis; aer mobilis, acutus et crassus; aqua crassa, obtusa et mobilis; terra crassa, obtusa, immobilis. Quae etiam sibi ita commiscuntur. Terra quidem crassa, obtusa et immobilis, cum aquae crassitudine et obtusitate conligatur. Deinde aqua aeri crassitudine et mobilitate coniungitur. Rursus aer igni communione acuti et mobilis conligatur. Terra autem et ignis a se separantur, sed a duobus mediis aqua et aere iunguntur. Haec itaque ne confusa minus colligantur, subiecta expressi pictura: Haec figura solida est secundum geometricam rationem ».

²⁹ ISIDORUS HISPALENSIS, *De natura rerum*, XI.2–3: « Ceterum sanctus Ambrosius eadem elementa per qualitates quibus sibi inuicem quadam naturae communione commiscuntur ita his uerbis distinguit: terra, inquit, arida et frigida est, aqua frigida atque humida, aer calidus est et humidus, ignis calidus atque siccus. Per has enim iugabiles qualitates sic sibi singula commiscuntur. Terra enim, cum sit arida et frigida, coniungitur aquae per cognationem qualitatis frigidae. Rursus aqua aeri per humorem, quia humidus est aer. Aqua uero quasi quibusdam duobus brachiis frigoris atque humoris, altero terram, altero aerem uidetur conplecti, frigido quidem terram, aerem humido. Ipse quoque aer medius inter duo conpugnantia per naturam, hoc est inter aquam et ignem, utrumque illud elementum sibi conciliat, quia aquis humore et igni calore coniungitur. Ignis quoque, cum sit calidus et siccus, calore aeri adnectitur, siccitate autem in communionem terrae sociatur, atque ita sibi per hunc circuitum quasi per quendam chorum concordii societate conueniunt ». For the translation, see ISIDORE OF SEVILLE, *On the Nature of Things*, p. 131.

combination of the elements is illustrated by a diagram that also shows the affiliations to the four seasons of the year and to the four humours:

Dry hot fire: summer, red bile
Hot moist air: spring, blood
Water moist cold: winter, phlegm
Earth cold moist: autumn, black bile.³⁰

Many versions of this diagram exist. Often it is represented by a framing circle containing six semicircles, each of them intersecting the two semicircles adjacent to it. In the space left in the middle of the image are written the words *mundus*, *annus*, *homo*. The symmetrical image conveys the same elemental composition of world, year, and man. It also shows how the elements are interrelated and intermingled.³¹

For the later analysis of Hildegard's vision of the earth, we must look more closely at a few of these diagrams. In some versions of it, four of the six inner circles form a sort of square in the middle – as in two manuscripts written in Salzburg at the end of the eighth/beginning of the ninth-century (Figure 2).³²

We find also, instead of six, only four circles that do not intersect with a square drawn in the middle of the figure – as shown in a manuscript from ninth-century Cologne.³³ An extremely schematic representation of this motif, where only the four elements are shown in each of the four semicircles, is to be found in a manuscript of St Gall, written between 760 and 780.³⁴

In addition, some versions of Isidore's diagram of the year, which can be considered as a previous stage to the *mundus-annus-homo* diagram, present a

³⁰ ISIDORUS HISPALENSIS, *De natura rerum*, XI.3: « Siccus calidus ignis: aestas, cholera rubea. / Calidus humidus aer: uer, sanguis. / Humida frigida aqua: hiemps, phlegma. / Frigida sicca terra: autumnus, melancholia ».

³¹ BRUNO REUDENBACH, « Ein Weltbild im Diagramm – ein Diagramm als Weltbild: Das Mikrokosmos-Makrokosmos-Schema des Isidor von Sevilla », in CHRISTOPH MARKSCHIES, INGEBORG REICHEL, JOCHEN BRÜNING, PETER DEUFLHARD (eds.), *Atlas der Weltbilder*, Akademie Verlag, Berlin 2011 (Forschungsberichte – Interdisziplinäre Arbeitsgruppen, Berlin-Brandenburgische Akademie der Wissenschaften, 25), p. 32–40, here p. 38.

³² Munich, Bayerische Staatsbibliothek, Clm 14300, fol. 7v, and Munich, Bayerische Staatsbibliothek, Clm 16128, fol. 16. For another similar diagram from the eight/ninth-century (St Denis?), see Vatican City, BAV, Regin. lat. 310, fol. 25r. Online at <https://digi.vatlib.it/view/MSS_Reg.lat.310> (Accessed June 2024).

³³ Cologne, Erzbischöfliche Diözesan- und Dombibliothek, Cod. 99, fol. 63v. Online at <<https://digital.dombibliothek-koeln.de/hs/urn:nbn:de:hbz:kn28-3-507-p0130-0>> (Accessed June 2024). Other instances of « middle squares » can be found in Staatsbibliothek Bamberg, Msc. Nat.1, fol. 16r; Besançon, Bibliothèque municipale, MS 184, p. 41.

³⁴ St Gall, Stiftsbibliothek 238, p. 312–385, p. 338. Online at <<https://www.e-codices.unifr.ch/en/csg/0238/338/0>> (Accessed June 2024).

framing circle with four semicircles inscribed within. The space left in the middle assimilates to a square. We find some instances of this kind of depiction in the already mentioned manuscripts of Cologne,³⁵ Salzburg (Figure 3) and St Gall (Figure 4). The two last mentioned not only match two qualities to each season of the year, but also relate them to the four parts of the world:

East: wet and hot; spring
South: hot and dry; summer
West: dry and cold; autumn
North: cold and wet; winter

At the closing of the *De natura rerum*, some characteristics of the earth are considered for a second time. Chapter 45 discusses the position of the earth. Isidore presents Ambrose's view according to which the earth is suspended in the void (cf. Job 26:7), to explain how the air rests upon the earth and remains in equilibrium.³⁶ He describes also the opinion of the philosophers, who think that « the earth is held up by thick air and hangs immobilized like a sponge because of its mass, so that it is buoyed up by an equal motion on one side and the other, as by wings beating like oars on every side ». ³⁷ Another two images of the earth are given in the last chapter of the book. The first presents the earth at the centre of the universe, at equal distance to all its other parts.³⁸ The second shows the earth divided into three parts: Europe, Asia, and Africa.³⁹ The position of the continents in the world is illustrated by the O-T map that supplements this chapter. A very similar account on the central place of the earth is found in the *Etymologies* (XIV.1). It also refers in the next chapter (XIV.2) to its name, *orbis* (globe), that originates

³⁵ Cologne, Erzbischöfliche Diözesan- und Dombibliothek, Cod. 99, fol. 59v. Online at <<https://digital.dombibliothek-koeln.de/hs/content/zoom/171269>> (Accessed June 2024). The manuscript for Hildebald, Bishop of Cologne (798–805), is very similar; see Cologne, Erzbischöfliche Diözesan- und Dombibliothek 83(II), fol. 129v. Online at <<https://digital.dombibliothek-koeln.de/hs/content/zoom/168779>> (Accessed June 2024).

³⁶ ISIDORUS HISPALENSIS, *De natura rerum*, XLV.1: « Qualiter terra super aerem fundata libratis credatur stare ponderibus, sic dicit Ambrosius: de terrae autem qualitate siue positione sufficiat secundum scripturam Iob sciendum quia suspendit terram in nihilo ».

³⁷ ISIDORUS HISPALENSIS, *De natura rerum*, XLV.1: « aere denso terram sustineri et quasi sphungiam mole sua immobilem pendere, sicque ut aequali motu hinc atque inde ueluti alarum suffulta remigiis ex omni parte librata propendeat, nec in partem possit inclinari alteram ». For the translation, see ISIDORE OF SEVILLE, *On the Nature of Things*, p. 172.

³⁸ ISIDORUS HISPALENSIS, *De natura rerum*, XLVIII.1: « Terra, ut testatur Hyginus, mundi media regione conlocata, omnibus partibus aequali dissidens interuallo, centron obtinet ».

³⁹ ISIDORUS HISPALENSIS, *De natura rerum*, XLVIII.2: « Regio autem terrae diuiditur trifarie, e quibus una pars Europa, altera Asia, tertia Africa uocatur. Europam igitur ab Africa diuidit mare ab extremis oceani finibus et Herculis columnis ».

« from the roundness of the circle, because it resembles a wheel; hence a small wheel is called a ‘small disk’ (*orbiculus*) ».⁴⁰

The *De natura rerum* of the Venerable Bede, deeply indebted to Isidore’s homonymous work, also contributed to shaping medieval cosmography.⁴¹ It was sometimes transmitted together with Isidore’s *De natura rerum*, and there are Carolingian examples of Isidore’s *rotae* that illustrate the text of Bede.⁴² Bede adds some new traits to the knowledge of the universe. As Isidore does, he describes the universe as consisting of heaven and earth, while pointing up that it is « rounded out of four elements into the appearance of a complete sphere ». The following lines state that, of the four elements, the earth « is the middle and lowest portion of the world. It hangs suspended, motionless, with the universe whirling around it ».⁴³ In the next chapter, dedicated to the elements, Bede first resorts to the Aristotelian idea of their natural places. To the earth, being « the heaviest substance and that which cannot be supported by another substance », corresponds « the lowest place among created things ». According to their lightness, the other elements of water, air, and fire are distributed in ascending order above the earth. After that, Bede briefly describes the notion of how the elements are associated with one another through their specific qualities.⁴⁴

Bede’s exposition on the five climates appears among the chapters on the heavens. Like Isidore, he considers five zones in the spherical universe, that

⁴⁰ WESLEY M. STEVENS, « The Figure of the Earth in Isidore’s ‘De natura rerum’ », *Isis*, 71 (1980), p. 268–277, here p. 274.

⁴¹ OBRIST, « La cosmologie du Haut Moyen Âge », p. 96.

⁴² KENDALL, WALLIS, « Introduction », p. 11.

⁴³ BEDA VENERABILIS, *De natura rerum*, in BEDA VENERABILIS, *Opera didascalica* I, ed. CHARLES W. JONES, Brepols, Turnhout 1975 (Corpus christianorum Series Latina, 123A), p. 173–234, here p. 194: « Mundus est uniuersitas omnis, quae constat ex caelo et terra, quattuor elementis in speciem orbis absoluti globata: igne, quo sidera lucent; aere, quo cuncta uiuentia spirant; aquis, quae terram cingendo et penetrando communiunt; atque ipsa terra, quae mundi media atque ima. Librata uolubili circa eam uniuersitate pendet immobilis. Verum mundi nomine etiam caelum a perfecta absolutaque elegantia uocatur; nam et apud graecos ab ornatu cosmos appellatur ». For the translation, see BEDE, *On the Nature of Things*, in BEDE, *On the Nature of Things and On Times*, transl. CALVIN B. KENDALL, FAITH WALLIS, Liverpool University Press, Liverpool 2010 (Translated Texts for Historians, 56), p. 69–103, here p. 75.

⁴⁴ BEDA VENERABILIS, *De natura rerum*, p. 195–196: « Elementa sibimet sicut natura, sic etiam situ differunt. Terra enim, ut grauissima et quae ab alia natura sufferri non possit, imum in creaturis obtinet locum. Aqua uero quanto leuior terra tanto est aere grauior, qui, si forte aquis in uase aliquo subdatur, statim ad superiora ut leuior euadit. Ignis quoque, materialiter accensus, continuo naturalem sui sedem super aera quaerit; sed ne illuc perueniat in mollem aerem, cuius circumfusione deprimitur, euanescit. Quae tamen quadam naturae propinquitate sibimet ita commiscuntur, ut terra quidem arida et frigida frigidae aquae, aqua uero frigida et humida humido aeri, porro aer humidus et calidus calido igni, ignis quoque calidus et aridus terrae societur aridae. Vnde et ignem in terris et in aere nubila terrenae corpora uidemus ». For the translation, see BEDE, *On the Nature of Things*, p. 75–76.

become five regions when projected into the earth.⁴⁵ He also explains the position of the earth by resorting to the Aristotelian idea of natural place. Because the earth is the heaviest element, it is « situated in the centre or pivot of the world » and must « hold the lowest and central place in creation ».⁴⁶ Bede also stresses its spherical form.⁴⁷

The idea of the earth as divided into five climatic zones was also transmitted in the Early Middle Ages by the fifth-century *Commentary to the Dream of Scipio* of Macrobius. Referring to the lost work of Cicero, Macrobius reports the vision of Scipio Africanus the Younger of the earth and the celestial spheres around it. The *Commentary* includes instructions for the drawing of four diagrams, the third corresponding to the zonal map.⁴⁸ The map includes three uninhabitable zones: two frigid polar zones and a torrid equatorial zone. Between these two extremes

⁴⁵ BEDA VENERABILIS, *De natura rerum*, p. 199–200: « Quinque circulis mundus diuiditur, quorum distinctionibus quaedam partes temperie sua incoluntur, quaedam inmanitate frigoris aut caloris inhabitabiles existunt. Primus est septentrionalis, frigore inhabitabilis, cuius sidera nobis numquam occidunt. Secundus solstitialis, a parte signiferi excelsissima, nobis ad septentrionalem plagam uersus temperatus, habitabilis. Tertius aequinoctialis, medio ambitu signiferi orbis incedens torridus, inhabitabilis. Quartus brumalis, a parte humillima signiferi ad austrinum polum uersus, temperatur, habitabilis. Quintus australis, circa uerticem austrinum qui terra tegitur, frigore inhabitabilis. Tres autem medii circuli inaequalitates temporum distinguunt, cum sol hunc solstitio, illum aequinoctio, tertium bruma teneat. Extremi enim semper sole carent. Vnde et a thule insula unius diei nauigatione ad aquilonem mare congelatum inuenitur ». See also CALVIN B. KENDALL, FAITH WALLIS, « Commentary: On the Nature of Things », in BEDE, *On the Nature of Things and On Times*, p. 133–165, here p. 141; STEVENS, « The Figure of the Earth in Isidore's 'De natura rerum' », p. 273.

⁴⁶ BEDA VENERABILIS, *De natura rerum*, p. 227–228: « Terra fundata est super stabilitatem suam, abyssus sicut pallium amictus eius. Sicut enim ignium sedes non est nisi in ignibus, aquarum nisi in aquis, spiritus nisi in spiritu. Sic terrae arcentibus cunctis nisi in se locus non est, natura cohibente et quo cadat negante. Quae in centro uel cardine mundi sita, humillimum in creaturis ac medium, tamquam gratissima, locum tenet cum aqua, aer, et ignis ut leuitate naturae, ita et situ se ad altiora praeueniant ». For the translation, see BEDE, *On the Nature of Things*, p. 97.

⁴⁷ BEDA VENERABILIS, *De natura rerum*, p. 228–229: « Orbem terrae dicimus, non quod absoluti orbis sit forma, in tanta montium camporumque disparilitate, sed cuius amplexus si cuncta linearum comprehendantur ambitu, figuram absoluti orbis efficiat. Inde enim fit ut septentrionalis plagae sidera nobis semper appareant, meridianae numquam; rursusque haec illis non cernantur, obstante globo terrarum. Septentriones non cernit Troglodytice et confinis Aegyptus nec Canopum Italia. Quamuis eiusdem orbis pene dimidio maior pars ab oriente ad occasum quam a meridie ad septentrionem habitetur, hinc calore illinc rigore prohibente accessum ».

⁴⁸ ALFRED HIATT, « The Map of Macrobius before 1100 », *Imago Mundi*, 59 (2007), p. 149–176, here p. 150.

are two habitable, temperate zones (Figure 5).⁴⁹ The zones are described as five bands (*cinguli*).⁵⁰

The aforementioned representation of the climatic zones was further passed on through Martianus Capella's *Marriage of Philology and Mercury*, and is well represented in the manuscripts of the Middle Ages.⁵¹ This map was originally intended to show the oceanic system,⁵² not to provide an image of the world, and is best understood as « a bridge between geography and cosmology – between the desire to see and to map the known world and the desire to explain the position of the earth in terms of the cosmic system referred to by Cicero and explicated by Macrobius ». ⁵³

As in the case of the five-zones map, the function of medieval cartographic representations was not merely scholarly; rather, their functions differed according to the context of origin.⁵⁴ As in the *Vita Columbani*, some descriptions of the world are found in accounts of visions, where the protagonist sees the world from above. These world images may have served as an aid in the process of contemplation.⁵⁵ These and other cartographic representations can be understood as comprising world-views, merging geography, myths and Salvation History in one image.⁵⁶

⁴⁹ DAVID WOODWARD, « Medieval Mappaemundi », in JOHN B. HARLEY, DAVID WOODWARD (eds.), *Cartography in Prehistoric, Ancient, and Medieval Europe and the Mediterranean*, University of Chicago Press, Chicago 2002 (The History of Cartography, 1), p. 287–369, here p. 300; NATHALIE BOULOUX, « Ordering and Reading the World », in CHRISTOPH MAUNTEL (ed.), *Geography and Religious Knowledge in the Medieval World*, De Gruyter, Berlin – Boston 2021 (Das Mittelalter. Perspektiven mediävistischer Forschung, Beihefte, 14), p. 85–108, here p. 90; PATRICK GAUTIER DALCHÉ, « De la glose à la contemplation. Place et fonction de la carte dans les manuscrits du haut Moyen Âge », in *Testo e immagine nell'alto medioevo*, Centro italiano di studi sull'Alto Medioevo, Spoleto 1994 (Settimane di studio del Centro Italiano di Studi sull'Alto Medioevo, 41,2), p. 693–771, here p. 713.

⁵⁰ HIATT, « The Map of Macrobius before 1100 », p. 151; 154.

⁵¹ EVELYN EDSON, EMILIE SAVAGE-SMITH, ANNA-DOROTHEE V. D. BRINCKEN, *Der mittelalterliche Kosmos: Karten der christlichen und islamischen Welt*, Primus-Verlag, Darmstadt 2005, p. 52–53. See also EASTWOOD, *Ordering the Heavens*, p. 200.

⁵² GAUTIER DALCHÉ, « De la glose à la contemplation », p. 714.

⁵³ HIATT, « The Map of Macrobius before 1100 », p. 163–164.

⁵⁴ PATRICK GAUTIER DALCHÉ, « Conceptions et représentations géographiques du haut Moyen Âge. Conditions, techniques intellectuelles, évolutions », in *La conoscenza scientifica nell'Alto Medioevo*, vol. I, p. 335–378, here p. 354.

⁵⁵ GAUTIER DALCHÉ, « De la glose à la contemplation », p. 764.

⁵⁶ HANS-WERNER GOETZ, *Gott und die Welt. Religiöse Vorstellungen des frühen und hohen Mittelalters. Teil I, Band 2: Die materielle Schöpfung: Kosmos und Welt; Die Welt als Heilsgeschehen*, Akademie Verlag, Berlin 2012 (Orbis mediaevalis. Vorstellungswelten des Mittelalters, 13.2), p. 142.

III. *Elements of early medieval cosmography in the twelfth-century*

The long twelfth century is usually seen as a turning point in regard to the knowledge of nature in the Middle Ages. A novel understanding of the body and its workings was brought about by the translations associated with Monte Cassino in South Italy. In addition, an interest in cosmogony and cosmography is revealed by the renewed attention paid to Calcidius's translation and commentary of Plato's *Timaeus* and its influence on the masters of the school of Chartres, and elements of the Ptolemaic astronomy were revealed by a group of translators in the region of the Ebro in the second quarter of the century.⁵⁷ The works of Aristotle and of his Greek, Arabic and Jewish commentators were translated into Latin from the middle of the century onwards.

On the other hand, research on the *computus* tradition has shown that in the centuries before there was already « an apparent interest in natural phenomena in the field of astronomy », which considers physical explanations and their revision for attaining a better understanding and prediction of celestial phenomena.⁵⁸ This tradition cannot be strictly distinguished from the more textual one of Isidore, Beda's *De natura rerum* and from Macrobius and Martianus Capella, since sometimes materials from these different sources were compiled together as they deal broadly with the same phenomena.

The new knowledge that was being made available did not mean a break with former traditions. The « scientific Isidore » continued, at least indirectly, to be copied, read, and incorporated into encyclopaedias.⁵⁹ There has been less research on the reception of Isidore in these centuries,⁶⁰ in part because scholarship on Isidore's works tends to focus on the earliest manuscripts of the seventh to the ninth centuries, and on occasion the tenth.⁶¹ The vitality of early medieval

⁵⁷ CHARLES BURNETT, « A Group of Arabic-Latin Translators Working in Northern Spain in the Mid-12th Century », *Journal of the Royal Asiatic Society of Great Britain and Ireland*, 1 (1977), p. 62–108; CHARLES BURNETT, « Translation from Arabic into Latin in the Middle Ages », in HARALD KITTEL, JULIANE HOUSE, BRIGITTE SCHULTZE (eds.), *Übersetzung: Ein internationales Handbuch zur Übersetzungsforschung*, De Gruyter, Berlin – New York 2007 (Handbücher zur Sprach- und Kommunikationswissenschaft, 26), vol. II, p. 1231–1237, here p. 1231–1232.

⁵⁸ NADJA GERMANN, « Natural Philosophy in Earlier Latin Thought », in ROBERT PASNAU (ed.), *The Cambridge History of Medieval Philosophy*, Cambridge University Press, Cambridge 2010, vol. I, p. 219–231, here p. 225.

⁵⁹ JACQUES ELFASSI, BERNARD RIBÉMONT, « La réception d'Isidore de Séville durant le Moyen Âge tardif (XIIe–XVe s.) », *Cahiers de recherches médiévales et humanistes*, 16 (2008), p. 1–5.

⁶⁰ BOUDAIN VAN DEN ABEELE, « La tradition manuscrite des Étymologies d'Isidore de Séville. Pour une reprise en main du dossier », *Cahiers de recherches médiévales et humanistes*, 16 (2008), p. 195–205, here p. 202.

⁶¹ WINSTON BLACK, « Isidore of Seville in Scholastic Europe », in ANDREW FEAR, JAMIE WOOD (eds.) *A Companion to Isidore of Seville*, Brill, Leiden – Boston 2020 (Brill's Companions to the Christian Tradition, 87), p. 569–603, p. 570–571.

cosmography in the twelfth-century is evident in how that period witnessed the greatest number of copies of both *De natura rerum*.⁶²

Accordingly, we find in England, still at the end of the century, a compendium of cosmography that includes both works as well as extracts from Pliny the Elder and Abbo of Fleury.⁶³ Another scientific compilation written in England brought together passages from Isidore, Abbo of Fleury, and Macrobius, and also contains Bede's *De natura rerum* and *De temporum ratione*.⁶⁴

If we take Isidore's treatise on nature as an indicator for the relevance of early medieval cosmology, there are interesting findings in Hildegard's cultural landscape. From « West Rhineland » comes an exemplar of *De natura rerum* dated on 1136, placed among the third and four books of the *Etymologies*. The manuscript contains diagrams of the five zones of the world and of *mundus-annus-homo*.⁶⁵ At the end of the century, another exemplar with the corresponding diagrams (followed by Bede's *On Times* and then by the fourth book of the *Etymologies*) originates in the Cistercian Abbey of Salem (Diocese of Konstanz).⁶⁶ In this abbey was also written a manuscript of *Scivias*, and Abt Gero of Salem and Hildegard were in epistolary contact between 1165 and 1173.⁶⁷

In this context can also be mentioned an exemplar of *De natura rerum*, copied probably around the 1130s by eight nuns at the Benedictine monastery at Munsterbilsen near Maastricht (now Belgium).⁶⁸ The manuscript was later in the same century located at the Diocese of Trier, at the Premonstratensian Abbey of

⁶² KENDALL, WALLIS, « Introduction », p. 64. The manuscripts of Isidore's *De natura rerum* are listed in *Ibid.*, p. 67–99; and complemented by JACQUES ELFASSI, « Review: Isidore of Seville, On the Nature of Things. Translated with Introduction, Notes and Commentary. Translated Texts for Historians, 66 », *Bryn Mawr Classical Review* (2017), <<https://bmcr.brynmawr.edu/2017/2017.03.22>> (Accessed 22 March 2022). For the *Etymologies*, see also VAN DEN ABEELE, « La tradition manuscrite des *Étymologies* d'Isidore de Séville », p. 199.

⁶³ Baltimore, Walters Art Museum, MS W.73. Online at <<https://www.thedigitalwalters.org/Data/WaltersManuscripts/html/W73/>> (Accessed June 2024). Both works are also together in British Library, Cotton MS Domitian A I <http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Cotton_MS_Domitian_A_I&index=13> (Accessed June 2022).

⁶⁴ Oxford, St John's College, MS 17.

⁶⁵ London, British Library, Harley MS 2660, fol. 36v and 37r.

⁶⁶ Heidelberg, Universitätsbibliothek, Cod. Sal. IX,39, fol. 26v (for the diagram *mundus-annus-homo*). No exact provenience (just « Germany ») is given for Wolfenbüttel, Herzog August Bibliothek, Cod. Guelf. 333 Gud. lat. (Katalog-Nr. 4640).

⁶⁷ MICHAEL EMBACH, *Die Schriften Hildegards von Bingen: Studien zu ihrer Überlieferung und Rezeption im Mittelalter und in der Frühen Neuzeit*, Akademie Verlag, Berlin 2003 (*Erudiri Sapientia*, 4), p. 71. For the description of this *Scivias*, see *Ibid.*, p. 84–85.

⁶⁸ PAMELA R. ROBINSON, « A Twelfth-Century Scriptrix from Nunnaminster », in PAMELA R. ROBINSON, RIVKAH ZIM (eds.), *Of the making of books: Medieval manuscripts, their scribes and readers*, Scholar Press, Aldershot 1997, p. 73–93, here p. 88.

Arnstein.⁶⁹ It contains a year diagram that uses four semicircles, thereby forming a kind of square in the middle (Figure 6). Each season corresponds not to two, but to a single Hippocratic quality and a single part of the world:

East: hot; spring
South: dry; summer
West: cold; autumn
North: wet; winter

A similar figure appears in another work written in a women's cloister: the *Hortus deliciarum* of Herrad of Hohenbourg. The schema of the elements relates each of them to two Hippocratic qualities as well to their numerical ratio according Plato's *Timaeus*. It bears considerable parallels with some of the previously discussed diagrams of *annus* and *mundus-annus-homo*.⁷⁰

This brief overview suggests that the early medieval cosmography was still passed on, even in monasteries that can be connected to Hildegard, and that it was also known in some female monasteries. Isidore and Bede are, in addition, authors who are listed in the *similia* registers of the critical editions of Hildegard's main works.⁷¹

As already discussed, Hildegard may well have been aware of the principal tenets and their depiction through oral communication, through *florilegia* and other works. Thus, the *Summarium Heinrici*, whose two versions were known to the visionary, refers briefly to the five climatic zones and to the earth⁷² – references

⁶⁹ London, British Library, Harley MS 3099. See description of ownership in <http://www.bl.uk/manuscripts/FullDisplay.aspx?ref=Harley_MS_3099> (Accessed June 2022). For an overview of Hildegard's contacts to Trier, see ADELGUNDIS FÜHRKÖTTER, « Hildegard von Bingen und ihre Beziehungen zu Trier », *Kurtrierisches Jahrbuch*, 25 (1985), p. 61–72.

⁷⁰ Cf. HEIKE WILLEKE, « Ordo und Ethos im Hortus Deliciarum: Das Bild-Text-Programm des Hohenburger Codex zwischen kontemplativ-spekulativer Weltschau und konkret-pragmatischer Handlungsorientierung », Ph.D. Diss. Universität Hamburg, 2004, p. 123–125.

⁷¹ BERNDT, ZÁTONYI, *Glaubensheil*, p. 94. According to the *index auctorum*, we find *similia* to Isidore's *De natura rerum* once in *Scivias* and five times in *LDO*, and to Bede's *De natura rerum* only once in *Scivias*. Much more similitudes are found with Isidore's *Etymologiae* (Books VI, VII, X, XI, XIII, XVII, XX): once in *Scivias*, four times in *LVM* (two of them also found in Hraban Maur), and four times in *LDO*. In *Cause et cure*, Moulinier identifies one possible reference to Isidore's *De natura rerum* and four to Bede's homonymous work. The references to the *Etymologies* (Books I, III, IV, VI, X–XVII) are much more numerous (around 70).

⁷² *Summarium Heinrici. Band 1: Textkritische Ausgabe der ersten Fassung*, ed. REINER HILDEBRANDT, de Gruyter, Berlin 1974 (Quellen und Forschungen zur Sprach- und Kulturgeschichte der germanischen Völker, 185), V.3: « Zone vel circuli celi quinque sunt: primus arcticus, secundus terinus tropicus, tertius himerinus qui a Latinis equinoctialis, quartus antarticus, quintus eimerinus, latine vero hiemalis sive brumalis; V.12: Terra est in media mundi regione posita, omnibus partibus celi in modum centri equali intervallo consistens, que singulari numero totum

taken from Isidore's *Etymologies*. The *Imago mundi* of Honorius Augustodunensis (written around 1110) also discusses ideas such as the roundness of the earth (I.5) and its division in five climate zones, of which only the two middle zones are habitable.⁷³ Similar to Hildegard's *Scivias*, the *Imago mundi* describes the universe in the form of an egg.⁷⁴

Before concentrating on Hildegard's vision, there is one more novel aspect to consider: the re-sacralisation of cosmology at the beginning of the twelfth-century.⁷⁵ As Barbara Obrist states, the growing relevance of the History of Salvation and of the eschatological perspective leads to alterations to the structure of the universe itself. The places of saved and condemned souls are added to its centre and the inferno and the celestial paradise to its periphery.⁷⁶ These new features were first observed in the *Imago mundi* of Honorius, which includes « cosmic places associated with major stages » of the History of Salvation. Paradise is conceived as being above the eight spheres of stars and hell as in the centre of the cosmic system.⁷⁷ We also find the idea of a corporeal place of punishment in Hugh of St Victor, among others.

IV. *The fifth vision of the LDO: Image, sources, reinterpretation*

Hildegard opens her three books of visions by explaining the circumstances and the origin of her visions. Her account is followed by the visions themselves, each comprising first a description of what she saw and then an explanation of the vision through the divine voice. According to Dinah Wouters, Hildegard's visions

orbem significat [...] Orbis kreiz [sic] a rotunditate, quia rota est; qui trifarie divisus est: e quibus una pars Asia, altera Europa [...] tertia est Affrica [...] ». For Hildegard's knowledge of both versions of this work, see REINER HILDEBRANDT, « Summarium Heinrici: Das Lehrbuch der Hildegard von Bingen », in ERNST BREMER, REINER HILDEBRANDT (eds.), *Stand und Aufgaben der deutschen Dialektlexikographie*, De Gruyter, Berlin – New York 1996 (Historische Wortforschung, 4), p. 89–110.

⁷³ VALERIE I. J. FLINT, « Honorius Augustodunensis Imago Mundi », *Archives d'histoire Doctrinale et Littéraire du Moyen Âge* 49 (1982), p. 7–153; Edition p. 48–153. Online at <<http://www.jstor.org/stable/44403737>> (Accessed December 2024), here p. 51. For a short description of this work, see GOETZ, *Gott und die Welt*, p. 153.

⁷⁴ For a discussion of whether Hildegard was influenced by Honorius or was using a widely received image, see SANTOS PAZ, « Visiones hildegardianas del cosmos », p. 221–223.

⁷⁵ OBRIST, « La cosmologie du Haut Moyen Âge », p. 112.

⁷⁶ BARBARA OBRIST, « L'univers du Liber floridus et les lieux des anges, des âmes et de la divinité », in PATRIZIA CARMASSI (ed.), *Time and Science in the « Liber floridus » of Lambert of Saint-Omer*, Brepols, Turnhout 2021 (Les Études du RILMA, 13), p. 127–150, here p. 127.

⁷⁷ BARBARA OBRIST, « The Physical and the Spiritual Universe: Infernus and Paradise in Medieval Cosmography and its Visual Representations (Seventh-Fourteenth Century) », *Studies in Iconography*, 36 (2015), p. 41–78, here p. 69.

are the result of her thinking poured into a textual form. This textual form, the vision itself, is an allegory. The allegory is then explained through textual exegesis. Textual exegesis is carried out by means of the divine voice which, on the one hand, elucidates the vision itself and, on the other, it sets out certain aspects.⁷⁸ In the *LDO*, the cosmos is transformed into an allegory whose meaningful aspects are to be discerned.⁷⁹ Hildegard relates these aspects to the divine mysteries. By abstracting and rearranging the elements of reality, that is, by distinguishing the meaningful aspects of the allegorical cosmos, she is able to communicate her visions to a wider audience. In this way, she guides her audience to the insights she has received through divine grace, thereby fulfilling her role as a prophetess.⁸⁰

The role of Hildegard's visions – also of her vision of the earth – is different from the role of some medieval maps and of the diagrams mentioned above. It does not depend on the accompanying text; rather, the text is built upon the vision. It differs as well from some cosmic visions, for the optical or the speculative activity are not foregrounded;⁸¹ the accent is not on the vision itself but on its interpretation in words.

Her third book of visions, the *LDO*, is divided into three sections and comprises ten visions, each illuminating an aspect of the cosmos. The first section deals with the relationship between the macro- and microcosmos, and the third with the History of Salvation. The second section, comprising only the fifth vision, has its place between the other two, connecting them.

In her first vision, Hildegard sees a human image with the most beautiful, radiant head. Appearing above the head is the face of an old man. This winged figure is holding a lamb in his arms. The tunica that covers him is the mortal garment (i.e., the body) of the Son of God. In her second vision, the wheel (*rota*) of the universe appears in the breast of the image. Planets and different parts of the human body are placed into a relationship. The macro- and microcosmos are the subject of the third vision, which examines the interaction between worldly winds and human humours. In the fourth vision, Hildegard considers the measures and occurrences of the firmament and their rapport with worldly phenomena and especially with the human body. These four visions, which constitute the first section, present a close connection between the universe and the human body: this body not only mirrors the celestial phenomena, but also acts as a hinge between the envisioned cosmos and a psychological or moral explanation.

The fifth vision does not describe the interaction between the different elements of the universe, earth phenomena, and the human body. Leaving the

⁷⁸ WOUTERS, *Allegorical Form and Theory*, p. 244.

⁷⁹ WOUTERS, *Allegorical Form and Theory*, p. 135.

⁸⁰ WOUTERS, *Allegorical Form and Theory*, p. 244; 242.

⁸¹ WOUTERS, *Allegorical Form and Theory*, p. 755; 757.

universe behind, Hildegard concentrates on the earth, which she envisions as follows:

Then I saw the round of the earth divided into five parts, so that one part was to the east, one to the west, the third to the south, the fourth to north, while the fifth in their middle. The extent of the eastern part and the extent of the western part were of equal dimension, and each had the form of a drawn bow. The extent of the southern part and the extent of the northern part also were of a single measure, equal in length and breadth to the previous two parts—except that, because the inner edges of the previous two parts curved around, these two appeared as if truncated as they bent inwards. So they too imitated the form of a drawn bow, except that their inner edges were truncated.⁸²

The four zones of the earth are ordered according to the four cardinal directions and a fifth appears in the middle of them. Eastern and western, and northern and southern parts mirror each other. Further details are added to the vision. The middle part has the form of a rectangle, and it is divided into three sections: one is exposed to heat, another to cold, and the third to a warm breeze.⁸³ While the eastern part is bright, the western is dark.⁸⁴ The northern and southern parts are each divided into three sections. The middle section of both parts abounds in horrors and punishments, while the two extreme sections are full of punishments.⁸⁵ It follows the description of some forms around and behind the wheel, which will not be of concern in this paper.

⁸² HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1 (Visio): « Deinde uidi rotunditatem terrę in quinque partes distinctam, ita ut pars una ad orientem, altera ad occidentem, tertia ad austrum, quarta ad septentrionem, quinta autem in medio istarum esset. Et ambitus partis orientalis ambitusque partis occidentalis equalis mensurę erant, formamque extenti arcus uterque habebat. Ambitus quoque partis australis ambitusque partis septentrionalis, unius mensurę existentes, longitudini et latitudini priorum duarum partium adequabantur, excepto quod in interioribus sinibus suis propter arcuatos interiores fines earundem priorum duarum partium quasi truncati uidebantur formamque extenti arcus preter ipsos truncatos interiores fines suos imitabantur ». For the translation, see HILDEGARD OF BINGEN, *The Book of Divine Works*, ed. NATHANIEL M. CAMPBELL, Catholic University of America Press, Washington DC 2018 (The Fathers of the Church. Mediaeval Continuation, 18), p. 264.

⁸³ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1 (Visio): « Quinta autem pars priorum partium, quę in medio omnium istarum erat, in quadrata forma apparebat atque alibi ardore, alibi frigore, alibi autem temperamento aeris perfusa erat ».

⁸⁴ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1 (Visio): « Et predicta pars orientalis multa claritate lucebat, occidentalis autem quadam tenebrositate oblecta tenebrescebat ».

⁸⁵ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1 (Visio): « Nam hę utręque partes, scilicet pars australis parsque septentrionalis, in tres partes distinguebantur, quarum duę medię ipsarum partium unius formę uniusque mensurę erant. Reliquę quatuor etiam, quę finetenus erant [...] australis uero, quę tribus distinctionibus distinguebatur, duas distinctiones quę finetenus erant plenas quibusdam penis habebat. Terciam autem, quę media uidebatur, non quidem penis, sed

In the other visions of the *LDO* as well as in her other visionary works, Hildegard writes regularly about the four parts of the world (*partes mundi, plagae mundi*).⁸⁶ The idea of the earth as divided in five zones appears only here. The division is further connected to climatic events, but these are not the result of heavenly circles that are projected on the earth – as in Isidore and Bede. Hildegard's wheel of the earth has, as do some of the *rotae anni* and *rotae mundi-anni-hominis*, a rectangle in the middle. The rectangle, divided into three sections, is affected by heat, cold, and warm breeze. The use of a square in the middle in combination with the circle, as Barbara Obrist points out in her study on wind diagrams, could symbolize « the surface of the earth and the world in its spatial extension ».⁸⁷ It slightly evokes the division of the world in three parts as represented in the O-T schemes, while at the same time makes use of the idea of habitable and non-inhabitable parts distinctive of the climatic models of the earth.

The vision and its illustration in the Lucca manuscript (Figure 7), an interpretation of this vision that dates from the first half of the thirteenth-century and was probably written in a Rhenish Abbey,⁸⁸ also has some traits in common with a number of the Isidorian *rotae*: the circle containing four (kinds of) semicircles, their correspondence with the four cardinal points, and the square in the middle. In her study on the depiction of Hildegard's visions, Keiko Suzuki relates this illustration to Isidore's *annus* diagram: the concave square, and the division of not all, but of two of the principal segments in three (as when the semicircles intersect). The division of the square into three parts is a new element.⁸⁹

The vision's description is followed by an explanation by a celestial voice. Some characteristics of early medieval cosmology, too, can be distinguished in this

aliis quibusdam monstruosis terroribus horrendam demonstrabat. Quod et septentrionalis pars, tres etiam separationes habens, in duabus extremis separationibus diuersis penis habundantibus et in media quamplurimis horroribus siue penis horrenda ostendebat ».

⁸⁶ For Hildegard's use of the four cardinal points, see BARBARA MAURMANN, *Die Himmelsrichtungen im Weltbild des Mittelalters: Hildegard von Bingen, Honorius Augustodunensis und andere Autoren*, Fink, München 1976 (Münstersche Mittelalter-Schriften, 33).

⁸⁷ BARBARA OBRIST, « Wind Diagrams and Medieval Cosmology », *Speculum*, 72 (1997), p. 33–84, here p. 63.

⁸⁸ EMBACH, *Die Schriften Hildegards von Bingen*, p. 166. For the circumstances of its production and a rejection of the idea that Hildegard had something to do with the composition of these miniatures, see also NATHANIEL M. CAMPBELL, « Picturing Hildegard of Bingen's Sight: Illuminating Her Visions », in JENNIFER BAIN (ed.), *The Cambridge Companion to Hildegard of Bingen*, Cambridge University Press, Cambridge 2021, p. 257–279, here p. 272–276.

⁸⁹ KEIKO SUZUKI, *Bildgewordene Visionen oder Visionserzählungen: Vergleichende Studie über die Visionsdarstellungen in der Rupertsberger « Scivias »-Handschrift und im Luccheser « Liber divinorum operum »-Codex der Hildegard von Bingen*, Lang – Bern i.a., 1998 (Neue Berner Schriften zur Kunst, 5), p. 221–222. Suzuki refers specifically to the year diagram in Paris, Bibliothèque nationale, Lat. 6413, fol. 1r. Online at <<https://gallica.bnf.fr/ark:/12148/btv1b10527898d/f9.item.zoom>> (Accessed June 2024).

section. The explanation of the earth being in the middle of the three other elements, so that it could not fall or break up,⁹⁰ is reminiscent of the Aristotelian notion of the elements having their natural places as it was transmitted by Bede. Likewise, Hildegard stresses the roundness of the earth and associates it to its equilibrium: « This is because, if the earth were angular and not round, its corners would cause it the defect of an unequal distribution of weight ».⁹¹ As with Isidore in his *De natura rerum* (Chapter 45), Hildegard relates form and equilibrium of the earth, for the proper balance and stability also count the interaction between the four exterior and the interior parts. This idea, already idiosyncratic, is deepened through a correlation between the earth and the human being (*homo*), who is strengthened for all that he needs and also led to salvation through the five senses.⁹²

From this point onwards, the traces of early medieval cosmology become increasingly blurred. In the following chapter, the five parts of the earth are further described in terms of their relationship to the middle part and of their correlation with the five senses.⁹³ The part oriented to the east, which lends useful greenness to the middle part by giving its « good sap », is compared to sight that is directed to the « origin of clarity ».⁹⁴ The part directed to the west gives to the middle part a moisture that is sometimes good and sometimes bad. It is compared to the sense of audition, which announces the whole body of favourable and

⁹⁰ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.2.1–5: « Orbem terrę Deus in medio trium elementorum ita suspendit, ut nequaquam labi nec dissolui possit; et in hoc se mirabilem atque potentem ostendit, cum etiam nec carnem nec ossa hominis in puluerem sic redigit, quin ea in nouissimo die ad integritatem suam restituat ».

⁹¹ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.13–21: « et hoc ideo est, quoniam, si terra angulosa et non rotunda esset, anguli ipsius defectum et inequalitem ponderositatis ei inferrent ». For the translation, see HILDEGARD OF BINGEN, *The Book of Divine Works*, p. 267.

⁹² HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.2: « Et si quinque partibus non distingueretur, recto moderamine non pensaretur, quia quatuor exteriores partes eam ad rectitudinem ponderant, quinta autem, quę media est, eam in rectitudine ista solidam et stabilem facit; designans etiam quod homo, quem terra demonstrat, quinque sensibus, qui in eo uigent, ad quęque sibi necessaria solidatur atque ad salutem animę suę dirigitur ».

⁹³ Interestingly, the following passages are not analysed in AZUCENA A. FRABOSCHI, « El lenguaje del cuerpo y los sentidos como teofanía en la obra teológica de Hildegarda de Bingen », *Teoliterária*, 3 (2013). In contrast, these passages (Chapters 2–5) are used to illustrate the importance of the five senses in Hildegard's thought by MAURA ZÁTONYI, *Das große Hildegard von Bingen Lesebuch: Worte wie von Feuerzungen*, Herder, Freiburg i. Br. 2022, 229–233.

⁹⁴ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Vnde et pars una ad orientem uersa medię parti sucum bonum uiriditatemque utilem tribuit, quemadmodum et hominis uisus quasi ad ortum claritatis directus ipsi, qui uelut in medio elementorum est, salutem corporis et animę subministrat ».

adverse things.⁹⁵ The third part, inclined to the south, lends to the same middle part a heat tempered by the cold breeze of the winds. It is compared to the sense of smell, which originates as a vapour from the heat and gives the human being the odour that comes from the hot and cold mixtures and the one that comes from the celestial sighs.⁹⁶ The fourth part, directed to the north, introduces to the middle part the cold from the north and the heat from the east. It is equated with the sense of taste that distinguishes cold from hot things, striking the human being with manifold flavours and celestial sweetness.⁹⁷ The fifth and middle part is strengthened and influenced by the other four. Similarly, the sense of touch, in between the other senses, receives from them the strength to live and operate.⁹⁸

In this manner, the four exterior parts influence the interior, middle part. The influence responds in the cosmological realm only to the qualities of cold and heat; wet and dry are not mentioned – unless we understand moisture as wet. It seems that here as well there is no association between the four parts and the seasons, as in some *rotae mundi-anni-hominis*. The middle part is consistently regarded as the human being. The correspondence between parts of the world and the senses is the following:

Eastern part (good sap): sight
Western part (moisture): hearing
Southern part (tempered heat): smell
Northern part (cold and heat): taste
Earth in the middle: touch

Before turning again to this correspondence, which appears throughout the account of the vision itself, Hildegard explains the same extension and form of a

⁹⁵ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Altera autem ad occidentem respiciens humiditatem interdum bonam, interdum nociuam eidem parti dat, ut etiam auditus totum corpus hominis uelut ad occidentem concutiens et penetrans nunc prospera, nunc aduersa, nunc animę salutem, nunc desperationem illi denuntiat ».

⁹⁶ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Tercia uero ad austrum uergens calorem frigido flatu uentorum temperatum ipsi parti inmittit, sicut et odoratus quemadmodum uapor de calore surgens odorem de calidis et frigidis temperamentis procedentem odoremque de supernis suspiriis uenientem homini infundit ».

⁹⁷ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Sed quarta ad septentrionem tendens frigus a septentrione et calorem ab oriente uenientem predictę medię parti inducit, uelut gustus, frigida recipiens frigidaque et calida discernens, diuerso sapore supernaque dulcedine hominem concutit ».

⁹⁸ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Quinta autem in medio istarum existens ab ipsis in soliditate confortatur diuersisque infusionibus temperatur; quemadmodum et tactus uelut in medio aliorum sensuum uigens ab eis roboratur, cum omnes ipsi uires tribuunt et eum ad uegetationem consolidant, ut etiam in dispositione digitorum ostenditur; quia et per ipsos opera ad eternam remunerationem respicientia perficiuntur ».

drawn bow for the eastern and western parts, for the sun in its trajectory covers the same distance when it rises as when it sets.⁹⁹ As we saw, the distances covered by the sun is a subject treated together with the five circles of the heaven and five parts of the earth in both Isidore's and Bede's *De natura rerum*. The movement of the sun is compared to sight: vision rises by the science of the good and descends by the science of the bad.¹⁰⁰ The extension and form of the southern and northern parts, truncated at their inner edges, are due to the fact that « the south fills the earth with heat as much as the north fills it with cold ». ¹⁰¹ The ascription of heat to the south and cold to the north could relate to some *mundus-annus-homo* diagrams, in which south and north are associated respectively with the seasons of summer and winter, and with the qualities of dry and hot, and wet and cold. Next, she compares smell and taste to the truncated parts of the earth: the sense of smell turns to the right on behalf of the odour of the virtues; the sense of taste turns to the left because of the taste of the vices. But they are unable to accomplish the action they have begun.¹⁰²

The subsequent paragraphs continue the parallels between human actions and the threefold division of northern and southern parts and their outer and inner limits.¹⁰³ First, Hildegard underscores that humans are unable to inhabit the southern and northern parts because of the heat, the cold, or the serpents.¹⁰⁴ Climatic inhabitability is then compared to the human *inhabitabilitas*, when the soul is inclined at the same time to good and bad actions by the smell of the virtues

⁹⁹ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Et, ut uides, ambitus partis orientalis ambitusque partis occidentalis equalis mensurę sunt, formamque extenti arcus uterque habet, quoniam sol oriendo et occidendo equalia spacia terrarum in circuitu cursus sui occupat ».

¹⁰⁰ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Quod etiam ostendit uisum per scientiam boni et mali in hac similitudine esse, uidelicet quod, sicut uisus per scientiam boni ad hoc quod bonum est sursum tendit, ita et per scientiam mali ad hoc quod malum est deorsum descendit; per illam quidem se a malo retorquendo, per istam autem a bono se recuruando ».

¹⁰¹ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « quantum terrę auster in calore, tantum septentrio in frigore occupat ». For the translation, see HILDEGARD OF BINGEN, *The Book of Divine Works*, p. 269.

¹⁰² HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.3: « Sic et odoratus, cum per odorem uirtutum tendit ad dexteram, gustus uero per saporem uiciorum ad sinistram, in hoc optentu uelut par studium, quamuis contrarium, habentes, origini suę se assimilant, cum ille bono, hic malo se coaptat; sed tamen neuter istorum in inicio inceptionis suę plenitudinem conatus sui habere potest, quia, dum primitus homo siue bonum siue malum incipit, scienter in eodem facto se constringit; quoniam nondum illi se totum committere audet ».

¹⁰³ The division of these parts in three zones as well as the further description of the otherworldly places in the four parts of the world could have as reference the Book of Enoch; see MAURMANN, *Die Himmelsrichtungen im Weltbild des Mittelalters*, p. 74–75.

¹⁰⁴ In his *Imago mundi* (I.9), Honorius also describes desert places beyond the Paradise, being inhabitable due to serpents and other beasts. See FLINT, « Honorius Augustodunensis Imago Mundi », p. 52.

and the taste of sin, ignorant about what the soul, body, and human actions are.¹⁰⁵ The middle, symmetrical section of each part stands for the soul that has only one disposition when desiring God, although it is amidst the odour of virtues and the taste of sin.¹⁰⁶ The explanation continues to explore the relationship between body and soul.

The identification between the fifth, square zone in the middle and the sense of touch is deepened in the exegesis of the vision: it means the perfection of the works and not the levity of the vices.¹⁰⁷ As in the climatic models of Isidore and Macrobius, Hildegard distinguishes between habitable and uninhabitable zones. Nevertheless, we deal here with three and not five zones: cold and heat – caused as well by the closeness or distance to the sun – make two of them unfit for human habitation. Amidst them is the only habitable zone. To show how the uninhabitable zones collaborate with heat and cold with the third one, Hildegard introduces a simile with the fingers of a hand and the five senses. We have here again an element of Isidore's description of the earth, but this time it has nothing to do with the disposition of the zones themselves.¹⁰⁸ After that, a novel element is introduced: the habitable parts represent the faithful, the uninhabitable the unfaithful.¹⁰⁹

¹⁰⁵ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.4: « Nam et hæ utraq̃ue partes, scilicet pars australis parsque septentrionalis, in tres partes distinguuntur, quæ hinc pre ardore, hinc pre frigore, hinc pre serpentibus inhabitabiles hominibus sunt. Hoc quoque demonstrat quod odoratus cum ascendit ad odorem uirtutum, gustus uero cum declinat ad saporem uiciorum, hominis corpus animamque eius ac opera ipsius diuerso modo tangunt; ubi et illum quasi inhabitabilem ostendunt, si non intelligit quid corpus, quid anima, quid opera in ipso sint, et si etiam in semetipso nec rectum temperamentum discernere nouit ».

¹⁰⁶ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.4: « Quarum duæ mediæ ipsarum partium unius formæ uniusque mensuræ sunt; quoniam pars australis et pars septentrionalis, in recta mensura existentes, his etiam sua rectitudine iusta moderamina concedunt; atque designant quod anima, in odore uirtutum et in sapore uiciorum uelut media inter corpus et opera ipsius existens, unius moderaminis et dispositionis est, cum mala metuendo ad Deum suspirat ».

¹⁰⁷ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.5: « Quinta uero pars priorum partium, quæ in medio omnium istarum est, in quadrata forma apparet, quatinus a ceteris equaliter contineatur et perfundatur; designans etiam quod tactus perfectionem operum et non leuitatem uiciorum habeat ».

¹⁰⁸ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.5: « Atque alibi ardore, alibi frigore, alibi autem temperamento aeris perfusa est, quia ardor solis eam hic propter uicinitatem suam perurens, frigus uero propter remotionem ipsius eam illic constringens, inhabitabilem hominibus reddit. Temperies autem caloris et frigoris illam istic habitabilem concedit; quemadmodum et digiti a se differentes manum tamen fortitudine sua continentes roborant, et ut quinque sensus hominis, quamuis sibi dissimiles sint, uelut per ignem et aquam temptationem transeuntes, adminicula adiutorii sibi inuicem ad uirtutes exhibent ».

¹⁰⁹ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.5: « Sed et hæc eadem loca habitabilia fideles homines demonstrant, qui diuinam legem semper ruminantes et se totos ad supernam uitam erigentes in bonis operibus se habitabiles reddunt; inhabitabilia autem infideles designant, qui

In the next section, Hildegard turns her attention from the middle part to the four surrounding arches and considers them in terms of inhabitation. The five parts of the world come to be interpreted, as Peter Dronke puts it, as the « geography [...] of felicity, purgation and perdition ».¹¹⁰ The eastern, bright part is the place of the *beatae animae* and has the consolation of the blissful soul. It warns the soul to consider the true light with its interior sight.¹¹¹ In the four corners of the earth places of punishment have been assigned, where the souls, removed from their bodies, are examined according to their faults.¹¹² Accordingly, the remaining three major zones are related to different kinds of faults:

Western part: failure to hear the clamour of the truth¹¹³

Southern part: failure to smell the odour of truth¹¹⁴

Northern part: failure to taste the flavour of life¹¹⁵

uerbis Dei resistere et repugnare conantes et fidem abnegare ueritatemque et soliditatem eiusdem fidei lacerare et perrumpere laborantes his peruersitatibus se inhabitabiles faciunt, quia Spiritui Sancto habitaculum in semetipsis non concedunt ». A longer version of this chapter is found in the 'Fragment of Berlin' (Staatsbibliothek Preußischer Kulturbesitz, Lat. Qu. 674) III.48. For a contraposition of both texts, see JOSÉ C. SANTOS PAZ, « El fragmento de Berlín atribuido a Hildegard de Bingen y la actividad del scriptorium de Rupertsberg », *Anuario de Estudios Medievales*, 52 (2022), p. 857–886, here p. 863–864.

¹¹⁰ DRONKE, « Introduction », p. LIX. For the « Jenseits », see as well OBRIST, « The Physical and the Spiritual Universe », p. 51; BARBARA NEWMAN, « Hildegard of Bingen and the 'Birth of Purgatory' », *Mystics Quarterly*, 19 (1993), p. 90–97, here p. 93–94; MAURMANN, *Die Himmelsrichtungen im Weltbild des Mittelalters*, p. 74–80; LIEBESCHÜTZ, *Das allegorische Weltbild der heiligen Hildegard von Bingen*, p. 58; 119–121.

¹¹¹ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.6: « Et predicta pars orientalis multa claritate lucet, quoniam in ipsa locus uoluptatis et deliciarum est, refrigerium beatarum animarum in se habens, et ut anima interiorem uisum ad aspectum ueri luminis figat monens ».

¹¹² HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.6. « Contra uicia autem multorum peccatorum, quibus homines iusticiam preuaricantur, penalia et transitoria loca in quatuor angulis terrę posita sunt, quibus animę saluandorum secundum quod culpę eorum exigunt, corporibus exutę, examinantur ».

¹¹³ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.6: « Vnde occidentalis pars quadam tenebrositate oblecta tenebrescit, his tenebris penas leuium minorumque peccatorum in se continens, scilicet hominum illorum qui ignorantia delinquant, et in eis auditum hominis a clamore ueritatis auersum ostendens ».

¹¹⁴ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.6: « Australis uero pars, quę in tribus distinctionibus diuisa est, duas distinctiones quę finetenus sunt plenas quibusdam penis habet; in quibus fortia peccata animarum illarum puniuntur, quę dum in corporibus suis essent odorem uirtutum neglexerunt ».

¹¹⁵ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.6: « Quod et septentrionalis pars, etiam tres separationes habens, in duabus extremis separationibus diuersis penis habundantibus ostendit, in quibus animę illorum purgantur, qui gustum uitę postponentes concupiscentias carnis suę secuti sunt ».

Among the punishments of one of the sections of the southern zone and one of the northern are still some associated with fire (*penae ignei*)¹¹⁶ and with cold (*durissimae penae frigoris*).¹¹⁷ Nevertheless, the idea of the climatic zones makes way to an image of the world that includes corporal places for the blissful, the sinners and the condemned. The association between the parts of the world and the five human senses, first applied to stress the stability of the earth and the human being, changes now to relate a specific punishment with the fault committed with a specific sense.

This idea is brought up one last time, when Hildegard considers that, since human beings live by their five senses, they do wrong and, therefore, they make penitence in the different parts of the earth, most of them uninhabitable for human beings.¹¹⁸ In this manner, the habitability/inhabitability of the places of the earth responds both to the extreme climates and to the physical presence of reward and penitential places in the earth.

The remainder of the vision deals no further with the image of the earth, the five senses, or the places of reward and punishments. The divine judgments that are effective in all four parts of the earth lead Hildegard to an excursus about the four horsemen of the Apocalypse (II.1.8–9). She completes the exegesis of her vision (II.1.10–13), and concludes with a praise to God the Creator and a recounting of the fall of angels and of the human being and the redemption (II.1.14–16). Finally, Hildegard introduces the biblical account of the six days of the Creation, which she examines according to three of the four senses of the scripture: literal, allegorical, and tropological (II.1.17–49).

¹¹⁶ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.6: « Nam in distinctione anguli huius, qui inter orientem et austrum est, acerrimę penę ignei et uentosi aeris aliorumque cruciatuum sunt ».

¹¹⁷ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.6: « In separatione enim anguli istius, qui inter orientem et septentrionem est, durissimę penę frigoris et uentorum aliorumque cruciatuum sunt; in quibus infidelitas quorundam incredulorum hominum examinatur, qui dum in seculo manerent incredulitatem imitantes gustum uerę fidei neglexerunt, in hora tantum mortis suę per penitentiam ad fidem catholicam redeuntes gustum rectitudinis tandem receperunt ».

¹¹⁸ HILDEGARDIS BINGENSIS, *Liber divinorum operum*, II.1.7: « Quia autem homo in quinque sensibus consistens semper peccat, idcirco in prefatis quinque partibus terrę purgationem patitur, sed paruas penas in supradicta tenebrositate occidentalis partis illi sustinent, quibus presens terra dum in corporibus suis essent quasi carcer ob amorem celestium fuit. Qui autem uoluptati carnis seruiunt, in aliis purgatoriis penis, qui et in partibus austri et septentrionis sunt, ut predictum est, purgantur; quia quamuis peccauerint, Deum tamen et iustam fidem non abiecerunt. Has etenim supradictas, orientis et occidentis scilicet duas rotunditatis terrę principales partes, necnon et austri et septentrionis, ut prefatum est, quatuor angulares fines mortalis homo non inhabitat, quoniam pre inmutabilitate caloris seu frigoris seu pre aliis incommoditatibus illarum in eis uiuere non posset; quemadmodum etiam, si homo supra modum se exaltauerit aut si in desperationem ceciderit, uel si dextram negligens ad sinistram declinauerit, Spiritum Sanctum in habitaculum cordis sui non recipit ».

In terms of the structure of the work, one can see how Hildegard incorporates into her vision some of the elements that characterise the conception of the earth in early medieval cosmology. Some of these elements are also incorporated into her explanation of the vision. In interpreting the « allegory of the earth », she radically transforms these elements and brings them into play to examine the human constitution as having five senses, the actions that are accomplished through the senses and finally the rewards and punishments that human beings shall receive according to these actions. Thus, the five senses guide the reader or hearer along the different levels to which the vision refers: the world, the human being with her ability to distinguish it and to act in it, the purgatory geography. They give rise to a further, inner geography: that of the soul and human works. And this is the core message of the vision.

V. *Transforming traditional knowledge: From the outer world to the human works*

In the fifth vision of *LDO*, we can trace a route that departs from a cosmological picture and ends by considering God the Creator. This path resorts to the five senses to reinterpret *mundus* in terms of the human body, to relate human body to its actions and, finally, to offer an image where *mundus* contains the rewards for the performed actions.

The image of the world presents many elements of the early medieval cosmology: the place of the earth in the middle of the cosmos, amidst the other three elements, the spherical form of the earth, the trajectory of the sun, the earth's division in five parts as in the zonal maps of Macrobius and the *rota circulatorum* of Isidore, or in three parts as in the O-T diagrams of the world. Nevertheless, in Hildegard's vision there are either Macrobian « stripes » (in their vertical or horizontal versions) or Isidorian circles. There is, though, an association between different climates and different parts of the world.

On the other hand, the form of the bows or semicircles – truncated or not – recalls some diagrams of the year and of *mundus-annus-homo*, as does the square in the middle. The macro- and microcosmos correspondences between the four elements, their four qualities, the four seasons, and the four human humours are characteristic of the Isidorian diagrams. Hildegard seems to maintain this relationship, though applying it to the division of the earth in five parts and its correspondence with the five human senses. Elements, qualities, and seasons play a minor role in the vision, and the humours none at all. As in the Isidorian *rota mundi-anni-hominis*, the square in the middle sometimes signifies the earth and sometimes the human being, the microcosmos. The transition from the climatic zones to the realm of the human being is probably mediated by the *mundus-annus-homo* scheme.

There is another characteristic that relates Hildegard's allegory to medieval representations of the earth. Her image of the earth contains important elements that correspond not only to its 'scientific' image, but also to its history: the end and the beginning. The envisioned image of the earth leads Hildegard to approach her principal subjects: the *homo interior* and the History of Salvation. In an Augustinian fashion, she departs from the knowledge of the terrestrial and celestial things, from the *scientia*, to arrive at knowledge of human weakness and of God and his Salvation History, that is, to *sapientia*.¹¹⁹

¹¹⁹ GAETANO LETTIERI, « Cosmologie protocristiane e patristiche dagli gnostici valentiniani ad Agostino », in *La conoscenza scientifica nell'Alto Medioevo*, vol. I, p. 21–52, here p. 47.

Images



Figure 1: Rota circularum.

ISIDORUS HISPALENSIS, *De natura rerum. Sententiae* – Munich, Bayerische Staatsbibliothek, Clm 14300, fol. 5v (detail). Regensburg, St Emmeram, eight/ninth-century. Online at <<https://www.digitale-sammlungen.de/en/view/bsb00046640?page=14,15>> (Accessed June 2024). Used under a Creative Commons Attribution-Non Commercial-ShareAlike 4.0 (CC-BY-NC-SA 4.0).

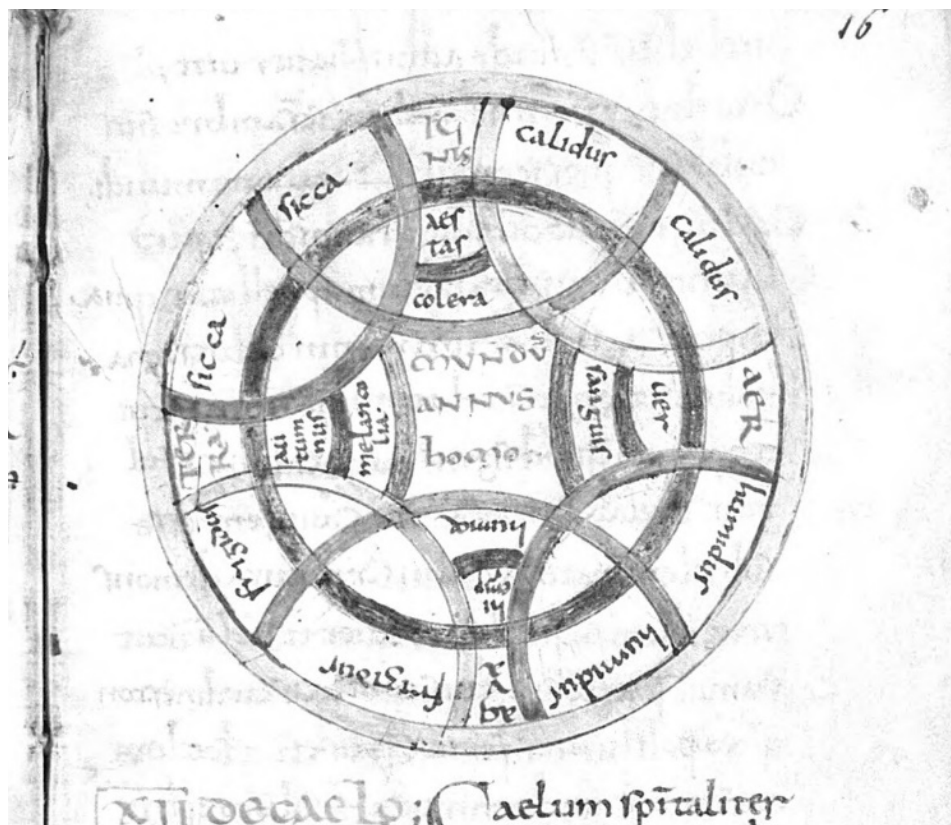


Figure 2: Rota mundi-anni-hominis

ISIDORUS HISPALENSIS, *De natura rerum* – Munich, Bayerische Staatsbibliothek, Clm 16128, fol. 16r (detail). Salzburg, end of the eighth-century. Online at <<https://www.digitale-sammlungen.de/de/view/bsb00122734?page=37>> (Accessed June 2024). Used under a Creative Commons Attribution-Non Commercial-ShareAlike 4.0 (CC-BY-NC-SA 4.0).



Figure 3: Rota anni

ISIDORUS HISPALENSIS, *De natura rerum. Sententiae* – Munich, Bayerische Staatsbibliothek, Clm 14300, fol. 5v (detail). Salzburg, end of the eighth-century/beginning of the ninth-century. Online at <<https://www.digitale-sammlungen.de/en/view/bsb00046640?page=14,15>> (Accessed June 2024). Used under a Creative Commons Attribution-Non Commercial-ShareAlike 4.0 (CC-BY-NC-SA 4.0).



Figure 4: Rota anni

ISIDORUS HISPALENSIS, *De natura rerum* – St Gall, Stiftsbibliothek 238, p. 331 (detail). St Gall, AD 760–80. Online at <<https://www.e-codices.unifr.ch/en/csg/0238/331/0/>> (Accessed June 2024). Used under a Creative Commons Attribution-Non Commercial 4.0 (CC-BY-NC 4.0).



Figure 5: Map of five zones

MACROBIUS, *Commentarii in Ciceronis Somnium Scipionis* – Oxford, Bodleian Library, MS D’Orville 77, fol. 100r (detail). South Germany, late tenth-century/early eleventh-century. Online at <<https://digital.bodleian.ox.ac.uk/objects/5fe47e7a-1ee6-4bb0-a2bc-798285e7d150/>> (Accessed June 2024). Used under a Creative Commons Attribution-Non Commercial 4.0 (CC-BY-NC 4.0).



Figure 6: Rota anni

ISIDORUS HISPALIENSIS, *De natura rerum* – British Library, Harley MS 3099, f. 156r (detail).
Benedictine nunnery at Munsterbilsen, c. 1130–1174. Courtesy of the British Library Board.



Figure 7: The image of the earth

HILDEGARDIS BINGENSIS, *Liber divinorum operum*, Vision II.5 – Biblioteca Statale di Lucca, MS 1942, fol. 88v. First half of the thirteenth-century (at a Rhenish Abbey). Digitized at <<https://www.loc.gov/item/2021668244/>> (Accessed June 2024).

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