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# A *Divisio Philosophiae* in the Medieval Icelandic Manuscript GKS 1812 4°

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Among the manuscripts held in the Árni Magnússon Institute for Icelandic Studies in Reykjavík is GKS 1812 4°, which previously belonged to the collection of the Royal Library in Copenhagen and still bears the shelf mark of that library. In the 17<sup>th</sup> century, the Lutheran bishop Brynjólfur Sveinsson, a passionate collector of manuscripts who was, among other things, a Greek scholar, a Ramist philosopher, and possibly a crypto-Catholic as well, donated the manuscript to the library of King Frederick III of Denmark-Norway. The 19<sup>th</sup>-century scholar and politician Jón Sigurðsson argued that the manuscript might have come from Viðey monastery, a medieval house of canons regular (dissolved after the Reformation) situated on an island close to present-day Reykjavík. On this point scholars have not agreed. For example, in 1968 Lars Lönnroth expressed the same opinion, while in 1984 Stefán Karlsson considered it uncertain. However, Ludvig Larsson noted in 1883 that the oldest part of

<sup>&</sup>lt;sup>1</sup> On Brynjólfur Sveinsson, see for instance *A History of Nordic Neo-Latin Literature*, ed. Minna Skafte Jensen (Odense: Odense University Press, 1995).

<sup>&</sup>lt;sup>2</sup> Jón Sigurðsson describes the manuscript, its contents and history in *Diplomatarium Islandicum*, I (Copenhagen: Hið íslenzka bókmenntafélag, 1857–1876), nr. 29, 180–185. His argument was based on the fact that the name of Steinmóður, Abbot of Viðey (1444–1481), occurs in a late addition to the manuscript (f. 5rb), and on family relationships between the last abbot of Viðey, Alexíus Pálsson (d. 1568) and the former owner of the manuscript, Hákon Ormsson (d. 1656), steward in Skálholt, from whom Sveinsson had obtained it.

<sup>&</sup>lt;sup>3</sup> Lars Lönnroth, "Styrmir's Hand in the Obituary of Viðey," *Mediaeval Scandinavia* (1968), 85–100. Stefán Karlsson, "Alfræði Sturlu Þórðarsonar" [Sturla Þórðarson's Encyclopedics], in *Sturlustefna* [Proceedings of a conference on Sturla Þórðarson], ed. Guðrún Ása Grímsdóttir and Jónas Kristjánsson (Reykjavik: Stofnun Árna Magnússonar, 1988), 37–60; repr. in *Stafkrókar. Ritgerðir eftir Stefán Karlsson* [*Stafkrókar. Essays by Stefán Karlsson*] (Reykjavik: Stofnun Árna Magnússonar, 2000), 279–302, here 293.

the manuscript was older than the Viðey monastery, which was founded in 1226, and so could not have been written there.<sup>4</sup>

The manuscript GKS 1812 4° is 21x14 cm. in size, bound in sealskin. It consists of a total of 36 leaves (= 72 pages).<sup>5</sup> It is normally divided into four parts, according to its four scribal hands identified by 19<sup>th</sup>-century scholars. This division, however, is not without some confusion, since the oldest part is denoted as part IV while the youngest are designated as parts I and II. In fact, these leaves are the remnants of at least three vellum manuscripts that were bound together as one in the 17<sup>th</sup> century, at the latest.<sup>6</sup> The oldest part, GKS 1812 4to IV, consists of 11 leaves that are the remnants of a manuscript dated to ca. 1190–1200 (ff. 24–34).<sup>7</sup> Next, four leaves, GKS 1812 4to III, stem from a manuscript dated to the second quarter of the 13<sup>th</sup> century (ff. 5–6, 35–36).<sup>8</sup> Finally, 21 leaves, GKS 1812 4to I–II, are the remains of a 14<sup>th</sup>-century manuscript (ff. 1–4, 7, 8–23) where scholars have distinguished two hands, one deemed to be Icelandic, the other Norwegian.<sup>9</sup>

The oldest part of the manuscript (GKS 1812 4° IV) contains an Icelandic-Latin glossary (24r), a treatise on computistics in Icelandic (24v–34va), a chapter from the *Íslendingabók* [Book of the Icelanders] concerning

<sup>&</sup>lt;sup>4</sup> Ludvig Larsson, Äldsta delen af Cod. 1812 4to Gml. Kgl. Samling [The Oldest Part of Cod. 1812 4to in the Old Royal Collection] (Copenhagen: Samfund til udgivelse af gammel nordisk literatur, 1883), iii.

<sup>&</sup>lt;sup>5</sup> Kristian Kålund, *Katalog over De Oldnorske-Islandske Håndskrifter* (Copenhagen: Gyldendalske Boghandel, 1900) 38–11; "Håndskriftbeskrivelse" [Manuscript Description] *Alfræði íslensk* II (Copenhagen: Samfund til udgivelse af gammel nordisk litteratur, 1914–16), ccx.

<sup>&</sup>lt;sup>6</sup> Jón Sigurðsson, op. cit., 183; Stefán Karlsson, op. cit., 293, n. 76.

<sup>&</sup>lt;sup>7</sup> Sigurðsson dated this part of the manuscript to ca. 1200. *Ordbog over det norrøne prosasprog. Registre* [A Dictionary of Old Norse Prose. Indices] (Copenhagen: The Arnamagnæan Commission, 1989), 471, dates it to ca. 1192.

<sup>&</sup>lt;sup>8</sup> *Ibid.*, 471.

<sup>&</sup>lt;sup>9</sup> More detailed description of the composition of the manuscript is given in Kristian Kålund, "Håndskriftbeskrivelse," ccx–ccxxv, and Ludvig Larsson, op. cit., i–iii. – A 17<sup>th</sup> century copy of those parts of the manuscript that are written in Icelandic is found in AM 252 fol.

chronology (34vb), Latin-Icelandic glosses and explanations of the forms of the Latin word *vesper* (34vb).

The fragment from the 13<sup>th</sup> century (GKS 1812 4° III) contains a list of the names of forty Icelandic priests of distinguished families, presumably composed in 1143 and arranged according to their respective quarters of the country (5r), a *mappa mundi* with names of countries written on the *orbis terrarum* (5v–6r), a cosmological illustration (6v), a *calendarium* (35r–v) and additional computistic material in Icelandic ("bókarbót") (36r–v).

The 14<sup>th</sup>-century leaves contain computistical and astronomical material, including a number of illustrations. The first part of the 14<sup>th</sup>-century manuscript begins with the mnemotechnical poem *Cisiojanus* (1r–2r), followed by annotations in Icelandic on the phases of the moon (2r–2v). The following pages contain illustrations representing nine zodiacal signes (3r–4r), three per page, with annotations in Latin. A *divisio philosophiae* is found on f. 4v, and on f. 7r there is a zodiacal drawing accompanied by a commentary in Icelandic, said to derive from Macrobius. After that, the manuscript contains drawings of six constellations, followed by an astronomical treatise in Icelandic (8v–10r).

The illustrations of the signs of the zodiac and the Latin annotations on ff. 3r–4r, as well as the illustration of the constellations on f. 7v, belong to the same treatise, *De ordine ac positione stellarum in signis*, which consists of 42 illustrated constellations, a fact that demonstrates the fragmentary character of the Icelandic manuscript. This material forms a part of the *Astronomia Arati*, a Latin translation, with annotations and illustrations, of the astronomical poem *Phenomena* by the Hellenistic poet Aratus of Soli. The *Aratea* were used by the Carolingians in the Seven Book

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<sup>&</sup>lt;sup>10</sup> Ludvig Larsson, *ibid.*, ii.

<sup>&</sup>lt;sup>11</sup> "The contents of the 21 leaves of this part are in general astronomic-computistic and are divided into numerous smaller parts, which are illustrated here and there by more or less well-rendered drawings." Larsson, ibid., i–ii. See also Rudolf Simek, *Altnordische Kosmographie* [Old Norse Cosmography] (Berlin: Walter de Gruyter, 1990), 30 and 384. – A description of the manuscript and photographs of it are now available at http://handrit.is.

<sup>&</sup>lt;sup>12</sup> Christian Etheridge, "A Possible Source for a Medieval Icelandic Astronomical Manuscript on the Basis of Pictorial Evidence", in *Limited Sources, Boundless Possibilities. Textual Scholarship and the Challenges of Oral and Written Texts.* A

Computus of 809. Ff. 8v–9v contain an Icelandic translation of the *Excerptum de Astrologia Arati*, which belongs to the same corpus. At the end of this first part of the 14<sup>th</sup>-century fragment, there is some computistic material that cites John of Sacrobosco (10v–12v), followed by a geometry of the circle (13r).

The second part of the 14<sup>th</sup>-century fragment contains the Old Norse translation of the *Algorismus*, which teaches calculation with Arabic numerals (13v–16v), other mathematical and astronomical annotations (16v–17r), a description of the form of the world and its zones (17r–20r), notes on the course of the sun (20r–21v), some computistic annotations, partly in Latin (22r), others in Icelandic on the moon, citing the priest Bjarni Bergþórsson "hinn tölvísi" [the mathematician] (d. 1173), and a division of the year (22v–23v). Most of these texts are also preserved in other manuscripts, and comparable material was published by Kålund and Beckman in 1916.<sup>14</sup> Recently, Christian Etheridge has analyzed the content and the images of the *Aratea* more closely, and connected the illustrations of the signs of the zodiac in GKS 1812 4° to other medieval manuscripts.<sup>15</sup>

This is the context in which we have, on f. 4v of the 14<sup>th</sup>-century fragment in GKS 1812 4to, one of the oldest direct references to philosophy in any medieval Icelandic manuscript. It is a diagram showing the division of philosophy into branches and subbranches.<sup>16</sup> The diagram is a kind of organizational chart, in which the word "PHILOSOPHIA" is written at the top of the page, with two circles forming a frame around it. Below it is written "DIVISIO PHILOSOPHIE," with three bands or ribbons leading from the circles at the top through the word and down to a corresponding number

special issue of RMN Newsletter, edited by Karina Lukin, Frog and Sakari Katajamäki, 7 (2013), 69–78.

<sup>&</sup>lt;sup>13</sup> Christian Etheridge, op.cit., loc. cit.

Alfræði íslensk: Islandsk encyclopædisk litteratur [Icelandic Encyclopaedic Literature], I–III, ed. N. Beckman and Kr. Kålund (Copenhagen: Samfund til udgivelse af gammel nordisk litteratur, 1908–1918).

<sup>&</sup>lt;sup>15</sup> Christian Etheridge, op.cit.

<sup>&</sup>lt;sup>16</sup> "Heimspekin (*Philosophia*) og hennar greinir, í uppdrætti eins og ættartafla, með skýringum á latínu..." [Philosophy (*Philosophia*) and its Branches, Delineated as a Family Tree, with Glosses in Latin...], Jón Sigurðsson, *op. cit.*, 182.

of branches, with a similar circular frame drawn around each. The branches are then divided into an uneven number of subbranches. The circular frames and the ribbons are colored red and green, alternately. Written next to the drawings and in between the branches are bits of Latin texts and verses. The diagram displays a variant of the old classification of philosophy into three main branches: physics, logic, and ethics, and their subbranches. This classification can be traced back to antiquity, but it is common in medieval literature and may be found in Isidore of Seville and Alcuin, among others. Yet in one detail, the classification system represented in the diagram deviates from its most common forms in the early Middle Ages, thus making it possible to date the system displayed to approximately the third quarter of the 11<sup>th</sup> century, although the manuscript itself is much younger. In the following, an attempt will be made to clarify this. First, the background of the classification will be detailed briefly, followed by a discussion of the diagram of philosophy and its interpretation.

### The Division of Philosophy into Branches and Subbranches

Various methods exist for dividing philosophy into branches, each reflecting a different understanding of what philosophy is.<sup>17</sup> Nowadays it is not uncommon for philosophy to be divided into three or four main branches, for example metaphysics, epistemology, and ethics (and their various subbranches), as well as logic, included either as a main branch or a supporting one. In the Middle Ages there were two main divisions, with many authors giving examples of each of them: on the one hand the so-called *Peripatetic* or Aristotelian division, which was built on a bipartite division of philosophy into theoretical and practical branches,<sup>18</sup> and on the

<sup>&</sup>lt;sup>17</sup> A brief overview of the division of philosophy from antiquity until the Middle Ages can be found in James A. Weisheipl, O.P., "The Nature, Scope, and Classification of the Sciences," in *Science in the Middle Ages*, ed. David C. Lindberg (Chicago and London: University of Chicago Press, 1978), 461–482; see also Pierre Hadot, "Les divisions des parties de la philosophie dans l'Antiquité", in his *Discours et mode de vie philosophique*, ed. Xavier Pavie and Philippe Hoffmann (Paris: Les Belles Lettres, 2014), 25–53. On the liberal arts, see *The Seven Liberal Arts in the Middle Ages*, ed. David L. Wagner (Bloomington: Indiana University Press, 1986).

<sup>&</sup>lt;sup>18</sup> Aristotle in fact divided the sciences into theoretical, practical, and productive, whereas medieval scholars combined the latter two categories into one.

other hand, the so-called *Platonic* division, a tripartite division into logic, physics, and ethics (which was in fact a Stoic invention). The main difference between these classification schemes concerns the place of logic: in the Aristotelian division, logic is regarded as a tool (organon) of philosophy, whereas in the "Platonic" division, logic, considered as the science of discourse, is an integral part of philosophy itself. On the other hand, the theoretical branch of the Aristotelian division corresponded to the physics branch of the Platonic division, and the practical branch in the Aristotelian scheme corresponded to the ethics branch in the Platonic scheme.

The Platonic division and its criteria were discussed extensively by the Stoic philosophers. 19 Some of these philosophers described the division as being made into types (species), naming this category divisio in Latin, while others described it as a division into parts (partes), and thereby designating it partitio. Divisio was viewed as being definitive and according to the nature of things, whereas partitio indicated the possible existence of other branches of philosophy apart from the three main ones. The Stoics, in fact, made a distinction between philosophy itself and philosophical discourse, and considered the division to apply to philosophical discourse, but not to philosophy itself. The branches of philosophy were most commonly listed in the order logica, physica, ethica, or logica, ethica, physica, and some philosophers utilized metaphors for clarification. The most famous of these was the garden, the egg, and the animal. Logic was the fence around the garden, the soil or the trees were the natural sciences, and the fruits were ethics; alternately, logic was the shell around the egg, the natural sciences were the white and ethics the volk, or vice versa; or logic was the bones, the natural sciences the flesh, and ethics the soul of the animal.<sup>20</sup>

Considering that the present investigation deals with the tripartite division of philosophy in medieval manuscripts, it is worthwhile to bring up what two influential teachers of the early Middle Ages, Isidore (560-636) and Alcuin (730–804), have to say about the topic, starting with Isidore, since

<sup>&</sup>lt;sup>19</sup> Cf. Katerina Ierodiakonou, "The Stoic Division of Philosophy," *Phronesis* 38/1 (1993). 57-74.

<sup>&</sup>lt;sup>20</sup> A. A. Long and D. N. Sedly, *The Hellenistic Philosophers*, Vol. I (Cambridge: Cambridge University Press, 1987), 158–163.

his work was one of the medievals' main sources for the intellectual world of antiquity. When Isidore treats the definition of philosophy in Book II of his *Origines*, he first delineates a tripartite division of the subject into physica, ethica, and logica (natural science, ethics, and logic), and then gives examples of several other definitions of philosophy, including its division into two parts, *inspectiva* and *actualis*, as he calls them (that is, "theoretical" and "practical"), and their branches. He derives this definition from the Institutiones divinarum et humanarum literarum of Cassiodorus who, in turn, modelled it on Boethius' commentary on Porphyry's Isagoge.<sup>21</sup> It was customary for writers to start their discussions of logic with a brief discussion of the nature and division of philosophy. 22 Thus, Isidore treats the nature and division of philosophy at the start of his discussion of dialectica, rather than at the start of his work as a whole. Isidore's definition, derived from Cicero, is as follows: Philosophia est rerum humanarum divinarumque cognitio cum studio bene vivendi coniuncta [Philosophy is the knowledge of things human and divine, combined with the pursuit of living well]. Isidore discusses the implications of this definition briefly, before dividing philosophia into types (species):

Philosophiae species tripartita est: una naturalis, quae Graece Physica appellatur, in qua de naturae inquisitione disseritur: altera moralis, quae Graece Ethica dicitur, in qua de moribus agitur: tertia rationalis, quae Graeco vocabulo Logica appellatur, in qua disputatur quemadmodum in rerum causis vel vitae moribus veritas ipsa quaeratur.<sup>23</sup>

Philosophy is of three types: one natural, which in Greek is named *Physica*, in which the investigation of nature is discussed; a second moral, which in Greek is called *Ethica*, which treats of behavior; and a third rational, given the term *Logica* in Greek, in which the discussion is about the manner in

<sup>&</sup>lt;sup>21</sup> Cf. Iwakuma Yukio, "The Division of Philosophy and the Place of the Trivium from the 9th to the Mid-12th Centuries," *Medieval Analyses in Language and Cognition*, ed. Sten Ebbesen and Russell L. Friedman, *Historisk-Filosofiske Meddelelser*, 77 (Copenhagen: Det kongelige Videnskabernes Selskab, 1999), 165–189.

<sup>&</sup>lt;sup>22</sup> Ann M. Blair, "Organization of Knowledge," in *The Cambridge Companion to Renaissance Philosophy*, ed. James Hankins (Cambridge: Cambridge University Press, 2007), 287–303.

<sup>&</sup>lt;sup>23</sup> Isidorus, *Etymologiae*, ed. W.M. Lindsay (Oxonii, 1911), II. 24.3.

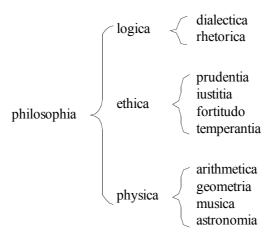
which truth itself may be investigated in the causes of things and in human behavior.

The branches of philosophy thus go by the names *physica* or *philosophia* naturalis; ethica or philosophia moralis; and logica or philosophia rationalis. Isidore then divides these into subcategories. Concerning physica, Isidore states that Thales was the first to investigate the subject, while Plato divided it into four parts: arithmetica, geometrica, musica, astronomia; taken together, these four parts make up the quadrivium, as it was called (following the Proemium of Boethius' Arithmetica) in the Middle Ages. Concerning ethica, Isidore writes that Socrates was the first to investigate it, establishing it as the art of living well and dividing it into four powers of the soul: prudentia, iustitia, fortitudo, temperantia, which are the four cardinal virtues (prudence, justice, fortitude, temperance). Concerning logica, Isidore writes that Plato divided it into dialecticam et rhetoricam (dialectic and rhetoric), but it is called logica because the Greek word *logos* means both utterance and reason. Isidore goes on to add that this tripartite division also reflects the subjects of theology. The ordering of the tripartite division as described by Isidore (physica, ethica, logica), is the same as followed by the polymath Poseidonius during the Hellenistic period.<sup>24</sup>

From Isidore we obtain the following scheme of the division of philosophy:

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<sup>&</sup>lt;sup>24</sup> Cf. Katerina Ierodiakonou, "The Stoic Division of Philosophy", 69.



Here we see clearly that the branches of philosophy consist of the liberal arts plus the four cardinal virtues. Two subjects of the trivium, rhetoric (rhetorica) and dialectic (dialectica), are grouped as subcategories of logic (logica), demonstrating the Stoic origin of the scheme, which does not include grammar (grammatica). On the other hand, all of the subjects in the quadrivium, arithmetic (arithmetica), geometry (geometrica), astronomy (astronomia), and music (musica), belong to the branch Physica. The four cardinal virtues, wisdom or prudence (prudentia), strength or fortitude (fortitudo), temperance (temperantia), and justice (justitia), are subbranches of Ethica. As can be seen, this scheme is composed of three independent systems, which have been combined in this way in order to create an overall classification of philosophy and the sciences: (1) the division of philosophy into three branches, as per the Stoics, (2) the liberal arts (the entire quadrivium plus the trivium minus grammatica), and (3) the four cardinal virtues.

Alcuin (730–804), who became an advisor to Charlemagne in 782 and developed the educational system of Charlemagne's empire, adopted Isidore's system, combining philosophy, the liberal arts, and the virtues. This system is expounded in, among other places, Alcuin's works on the trivium, *De dialectica* and *De rhetorica et virtutibus*. For example, in the former work, which is written as a conversation between Charlemagne (*Carolus*) and Alcuin (*Albinus*), he writes:

C. In quot partes dividitur philosophia? -A. In tres: Physicam, ethicam, logicam. -C. Hæc quoque latino ore exprome. -A. Physica est naturalis, ethica moralis, logica rationalis. [...] C. In quot species physica dividitur? -A. In quatuor: arithmeticam, geometriam, musicam, astronomiam. -C. In quot partes dividitur ethica? -A. In quatuor quoque: prudentiam, justitiam, fortitudinem, temperantiam. -C. Logica in quot species dividitur? -A. In duas, in dialecticam et rhetoricam. -C

C. Into how many parts is philosophy divided? -A. Into three: physics, ethics, logic. C. Put this into Latin as well. -A. Physics is natural, ethics is moral, logic is rational. [...] C. Into how many types is physics divided? -A. Into four: arithmetic, geometry, music, astronomy. -C. Into how many parts is ethics divided? -A. Also into four: prudence, justice, fortitude, and temperance. -C. Logic, into how many types is it divided? -A. Into two, dialectic and rhetoric.

As can be seen here, *philosophia* is the highest category, as it is with Isidore, and *physica* the generic concept for the quadrivium; *ethica* covers the four cardinal virtues and *logica* is the "genus" of logic and rhetoric. Philosophy thus encompasses, according to these classification systems, the liberal arts (excluding grammar), along with the virtues. Alcuin deviates only slightly from Isidore, in that he has the Aristotelian bipartite division cover theology, not philosophy; theology (*theologica*), he says, is called *inspectiva* in Latin, and the "true philosophy" (i.e. theology) is furthermore divided into *inspectiva* and *actualis*. The philosophical systems of Isidore and Alcuin are thus the same.

As time passed, medieval scholars attempted to formulate a classification system that took better into account the diversity of the subjects that were studied. Alcuin's pupil Hrabanus Maurus (760–856) expanded the number of the arts of the *physica* to seven in his encyclopaedic *De universo*.<sup>27</sup> In the first half of the 12<sup>th</sup> century, the endeavor to update the classification system reached its peak in the treatise *Didascalicon*, by Hugh of St. Victor. In this treatise, philosophy is divided into four parts: *theorica*, *practica*,

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<sup>&</sup>lt;sup>25</sup> Alcuin, De Dialectica, PL 101, 952.

<sup>&</sup>lt;sup>26</sup> Alcuin, ibid.

<sup>&</sup>lt;sup>27</sup> "Dividitur autem Physica in septem partes, hoc est Arithmeticam, Astronomiam, Astrologiam, Mechaniam, Medicinam, Geometriam et Musicam." Hrabanus Maurus, *De universo*, Book xv, Ch. 1, *De philosophia*, *PL* 111, 413; cf. John E. Murdoch, *Album of Science: Antiquity in the Middle Ages* (New York: Scribner, 1984)

mechanica, and logica, the chief development being that seven manual ("mechanical") arts are given a place alongside the seven liberal arts. As previously unknown texts, particularly by Aristotle, were made available in translations from Greek or Arabic, new attempts were made to bring the classification systems into line with the altered views on the interrelation of the sciences; one of the most detailed treatments of the nature, value, and division of the sciences is found in Robert Kilwardby's *De ortu scientiarum*, written around the middle of the 13<sup>th</sup> century. A close contemporary of Kilwardby's, Arnulph of Provence, produced a comprehensive *Divisio scientiarum*, which was later used by John of Dacia for his still more comprehensive *Divisio scientie* from the 1270s. Around 1255, however, Vincent of Beauvais was able to list eight different classification systems of the sciences in his work *Speculum doctrinale*. Afterward, fewer attempts were made to explain the nature and classification of the sciences, but the subject comes up again during the Renaissance and at the start of the early modern period.

## The Diagram of Philosophy and its Interpretation

Turning back to the diagram of philosophy in GKS 1812 4°, we see that it has all the main features of the philosophical systems of Alcuin and Isidore, but differs from the Aristotelian system, Hugh of St. Victor's system, and other 13<sup>th</sup>-century systems. Philosophy (*philosophia*) is divided into three branches: *physica*, *logica*, *ethica*, and they are ordered, as can be seen, differently than in Isidore's system (*physica*, *ethica*,

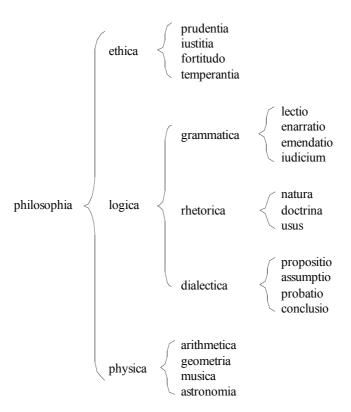
<sup>&</sup>lt;sup>28</sup> The Didascalicon of Hugh of St. Victor. A Medieval Guide to the Arts. Translated from the Latin with an Introduction and Notes by Jerome Taylor (New York: Columbia University Press, 1961).

<sup>&</sup>lt;sup>29</sup> For Arnulph's work, see Claude Lafleur, *Quatre introductions á la philosophie au XIII<sup>e</sup> siècle* (Montréal: Institut d' études médiévaux & Paris: Vrin, 1988. John of Dacia's *Divisio scientie* was edited by Alfred Otto in *Johannis Daci Opera* I.i, *Corpus Philosophorum Danicorum Medii Aevi* I (Copenhagen: DSL/Gad, 1955).

<sup>&</sup>lt;sup>30</sup> Ann M. Blair, op.cit., 288–289; Vincent de Beauvais, *Speculum doctrinale*, in *Speculum quadruplex sive Speculum maius* (Graz: Akademische Druck- und Verlagsanstalt, 1964–1965), volume 2.

<sup>&</sup>lt;sup>31</sup> See, however, Nicholas H. Steneck, "A Late Medieval *Arbor Scientiarum*," *Speculum*, 1972, 245–269; cf. also Thomas of Aquino, *The Division and Methods of the Sciences* (Toronto: The Pontifical Institute of Medieval Studies, 1963).

logica). Physica encompasses the quadrivium, as with Isidore and Alcuin, and ethica the four cardinal virtues. Unlike in Alcuin and Isidore's system, however, logica encompasses not just rhetorica and dialectica, but all of the subjects of the trivium, including grammatica, and they take up the most space in the diagram. The subbranches of the trivium are also specified. The diagram is set up here in a more traditional form:



Both *philosophia* and its branches are defined succinctly in Latin. Written at the top of the page, to the left of the word *philosophia*, is a definition of philosophy, which continues at the top of the right-hand page. The definition reads: "Philosophia est naturalium inquisicio diuinarum humanarumque rerum cognicio cum studio bene uiuendi adiuncta" [Philosophy is the study of natural things <and> knowledge of divine and human things combined with the pursuit of the good life]. This definition

is somewhat broader than that of Isidore (*Philosophia est rerum humanarum divinarumque cognitio cum studio bene vivendi coniuncta*), but the first part is nearly identical to the definition given by Alcuin in the first chapter of *De dialectica*: *Philosophia est naturarum inquisitio, rerum humanarum divinarumque cognitio*. *Est quoque philosophia* [...] *studium bene vivendi*; the second part, however, is closer to Isidore. The text continues on the right-hand side, with a snippet of verse taking over directly from the definition: "Gaudeat hac teste: qui uíuere querat honeste." This line, however, is in fact the second line in a couplet, the first line of which is written on the left-hand side: "Nixa loc<o> primo sede<t> hic uirtutis orígo." Together, these two lines, in leonine hexameter, thus read:

Nixa loco primo || sedet hic uirtutis origo.

Gaudeat hac teste || qui uiuere querat honeste.

The couplet could be translated in the following way: "Occupying the first place, here sits the source of virtue. Let anyone who wants to live honorably enjoy her as his witness." The source of virtue is, of course, *philosophia*.

The definitions given of the individual branches of *philosophia* are rather simple, and those of *physica* and *ethica* are in complete accord with the systems of Isidore and Alcuin. The former, which is written above the circular frame around the word "PHISICA," is simply: "Phisica que docet naturas rerum inquire" [*Physica*, which teaches how to investigate the nature of things]. The subbranches of *Physica* are then shown in square frames beneath the circular frame; these square frames lie adjacent to each other and are connected to the circular frame with a triangular band: "Arithmetica", "Geometria", "Musica", "Astronomía"; in other words, the entire quadrivium, as with Isidore and Alcuin.

Ethics is defined as follows: "Aethica est que docet morum perfectionem." [Ethica is that which teaches the perfection of morals], with the definition written above the circular frame around the word "AETHICA". Beneath it are written, in the same manner as before, the names of the four cardinal virtues: "prudencia", "Iusticía", "fortitudo", "temperancía."

Logica is also defined briefly, but this time the definition is given within the circle that marks this branch: "LOICA est sermocinalis sciencia" [Logic

is the science of discourse]. 32 Here we have another detail that distinguishes the system in the diagram from those of both Isidore and Alcuin. Not only are all the members of the trivium subbranches of *logica*, but the definition of *logica* as *sermocinalis scientia* [science of discourse] derives from 11<sup>th</sup>-century grammarians and their attempts to fit grammar into the classification system of the sciences. The definition appears to occur first in an influential work from the late-11<sup>th</sup> century, Glosulae super Priscianum; it divides logic into sermocinalis and dissertiva and incorporates grammatica under the former, but dialectica and rhetorica under the latter.<sup>33</sup> Another work, the *Note Dunelmenses*, follows this division but defines *logica* in general as *sermocinalis* ("Logica enim, id est sermocinalis scientia") and makes a distinction between sermocinalis (dialectica and rhetorica) and sermocinalis simplex (grammatica); a similar division is also found in Tractatus glosarum *Prisciani* (second half of the 11<sup>th</sup>/ first half of the 12<sup>th</sup> century).<sup>34</sup> Afterward, it became most common to include all members of the trivium as subbranches of *logica*.<sup>35</sup>

The definition of *logica* here provides some evidence for the dating of the classification system displayed by the manuscript's diagram (second half of the 11<sup>th</sup> century). For instance, an all-but-identical definition is given by Bernard of Utrecht, in his *Commentum in Theodulum*, which was composed between 1076–1099: "Loica, id est sermocinalis scientia." <sup>36</sup>

Each of the three subbranches of *logica* is given a separate circle around its name, the same size as for the branches of *philosophia*, while their contents are then described in a frame beneath each. Accordingly, "DIALECTICA" consists of "proposicío," A<s>sumpcío," "probacío," "conclusío" (major premiss, minor premiss, corroboration, conclusion), which are the constituent parts of the five-part syllogism presented by

 $^{32}$  *Loica* is not a spelling error. Both *loica* and *loyca* are common alternatives to *logica* in Medieval Latin.

<sup>&</sup>lt;sup>33</sup> Iwakuma Yukio, op.cit., 172.

<sup>&</sup>lt;sup>34</sup> Iwakuma Yukio, op.cit., 173

<sup>&</sup>lt;sup>35</sup> "The tripartite division of *logica* into *grammatica*, *dialectica*, and *rhetorica* came to be widely adopted in one way or another in later texts." Iwakuma, op.cit., 173.

<sup>&</sup>lt;sup>36</sup> Accessus ad Auctores. Bernard d'Utrecht. Conrad d'Hirsau, Dialogus super Auctores, ed. R.B.C. Huygens (Leiden: Brill, 1970), 7 and 68.

Cicero in *De inventione* I.xxxiv.57–59 (each premiss being accompanied by a corroboration, the syllogism acquires five parts). "RETHORICA" is divided into "Natura," "Doctrina," "Vsus" (faculty, teaching, application), which are basic concepts in the teaching of rhetoric (students need to have the faculty, they need to be taught the principles of the art, and they need training in how to apply them). "GRAM<M>ATICA" consists of "Lectio," "Enarracío," "Emendacio," "Iudicíum" (reading, explanation, correction, evaluation), which are the main components of literary interpretation according to classical grammarians; their Latin versions can be traced to Marcus Terentius Varro's lost *Disciplinarum Libri IX*. According to this scheme, *logica* is the science of discourse, and is a generic concept covering three subbranches: *dialectica*, *rhetorica*, and *grammatica*; this idea is to be found in neither Alcuin nor Isidore. The difference between *logica* and *dialectica* is thus that the former is here a generic concept of the latter.

A figure with a structure similar to the one in GKS 1812 4° is found in a 13<sup>th</sup>-century manuscript in Leipzig, University Library, lat. 1253. The manuscript comes from the Benedictine monastery in Pegau, near Leipzig, and includes a catalogue of the library of Pegau deriving from the time of Abbot Siegfried of Reckin (1185-1224). The manuscript contains Boethius' *Consolatio* with glosses, and the *Glosae super Boetium* by William of Conches. The figure is found on f. 83v (f. 83r contains a cosmological illustration), a folio that comes after the end of William's text and does not represent his idea of the division of philosophy as found there.<sup>37</sup> The illustrator has, however, adapted the figure to the Boethian context by personifying Philosophy in the form of a woman, but it seems that the drawing is unfinished. The illustration contains similar, although not identical, annotations. Thus, at the top of the illustration we find written: *Nixa loco primo sedet hic uirtutis origo. Gaudeat hac teste qui* 

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<sup>&</sup>lt;sup>37</sup> William divides science into *Eloquentia*, consisting of grammar, rhetoric, and dialectic, and *Sapientia*, which he divides into *theorica* and *practica*. The former is further divided into theology, mathematics, and physics, and the latter into ethics, economics, and politics. Mathematics is divided into arithmetic, music, geometry, and astronomy, and music is then subdivided, first, into *instrumentalis*, *humana*, and *mundana*, then the *instrumentalis* branches into *melica metrica* and *rithmica*, and the *melica* into *diatonica*, *enarmonica*, and *cromatica*. Guillaume de Conches, *Glosae super Boetium*, ed. Lodi Nauta, CCCM, 158 (Turnhout: Brepols, 1999), 32; cf. Iwakuma, op. cit. 182.

*uiuere querat honeste*, which is identical to the corresponding text in the Icelandic manuscript (save for the two spelling errors in the latter).<sup>38</sup>

The division of philosophy in GKS 1812 4° also resembles the description of philosophy and its parts given in Conrad of Hirsau's (1070–1150) *Dialogus super Auctores*, written after 1124–5, when the Magister concludes:

In tres partes philosophia distinguitur, in logicam que rationalis dicitur, in phisicam que naturalis dicitur, in ethicam que moralis dicitur. de phisica quadruuium habes, arithmeticam geometriam musicam astronumiam; de logica triuium, rethoricam dialecticam grammaticam; de ethica: iusticiam prudentiam fortitudinem temperantiam: hec enim de moribus tractat; porro de rethorica: natura usus doctrina; de grammatica: lectio enarratio emendatio iudicium; de dialectica: propositio assumptio probatio conclusio. sed ut hec melius pateant subicio figuram, per quam discretius aduertas quod uidisti per scripturam...<sup>39</sup>

Philosophy is divided into three parts: logic, which is called rational; physics, which is called natural, ethics, which is called moral. In physics we have the quadrivium: arithmetic, geometry, music, astronomy; in logic the trivium: rhetoric, dialectic, grammar; in ethics: justice, prudence, fortitude, temperance; for it deals with morals; but in rhetoric: faculty, application, doctrine; in grammar: reading, explanation, correction, evaluation; in dialectics: proposition, assumption, corroboration, conclusion. But in order to make this better understood, I submit to you this figure, in which you can view more clearly what you saw in writing ...

The figure to which Conrad refers when he writes "subicio figuram," is not preserved, but as suggested by the text, it was undoubtedly very similar to the diagram in the Icelandic manuscript. It should be noted that in the *Dialogus*, Conrad relied on the work of Bernard of Utrecht, but the *Dialogus* seems not to have been a very well-known work in the Middle Ages. 40

<sup>&</sup>lt;sup>38</sup> Lodi Nauta, *ed.cit.*, lxxxii, lxxxvi–lxxxvii, and Plate 4.

<sup>&</sup>lt;sup>39</sup> Conrad de Hirsau, *Dialogus super Auctores*, ed. R.B.C. Huygens, *Collection Latomus*, Vol. XVII (Berchem-Bruxelles: Latomus, 1955), 63; cf. *Dialogus super Auctores in Accessus ad auctores* (1970), 131 (italics omitted here).

<sup>&</sup>lt;sup>40</sup> R. Huygens states "peu connu," but mentions that Hugo of Trimberg used the *Dialogus* ca. 1280 (*Accessus ad Auctores. Bernard d' Utrecht. Conrad d' Hirsau, Dialogus super Auctores*, 17).

In addition to definitions, each subbranch of the trivium in the Icelandic diagram receives a couplet in leonine hexameter. In the Leipzig manuscript there are also verses corresponding to the three arts of the trivium, but written below the figure.

The verses for dialectic in GKS 1812 4° are written above the circle around "DIALECTICA" and have internal rhymes:

Plurima bella gero || íugulans contraria uero.

Omnia bis quinís || dum predico categoríís.

This may be translated: "I wage many wars and cut down what is contrary to truth, as I elucidate {or: predicate} all things by means of the ten categories."

The first part of the verses on rhetoric is written next to the band connecting dialectica with logica, and lies diagonally (upwards) above the circle drawn around "RHETORICA." It seems to read: "In ius cui ile suade cui tragina ueníre." The second part is drawn in the same way next to the band connecting grammatica and logica (downwards), and reads: "Esto boni ritus uir docendí que peritus." The latter line obviously paraphrases the traditional definition of an orator: vir bonus dicendi peritus, and dicendi instead of docendi is required for the verse to scan in a normal hexameter. The meaning of the first line, however, is not clear. The first part of it can be read as: "In ius ciuile" and the next two words emended as "suadet ui". The Leipzig manuscript is of no help here for its text is completely different: Cum summa cura ciuilia dissero uera. / Vt uolo transformo pulchrisque coloribus orno. 42

The verses for *grammatica*, written above the circle around "GRAM<M>ATICA," are:

Recte scribendi || uocor atque magistra loquendi.

<sup>&</sup>lt;sup>41</sup> Leipzig lat. 1253 has the same two verses, but with a slightly different text in the first: *Entimema fero iugulans contraria uero*.

<sup>&</sup>lt;sup>42</sup> The last word is barely legible, but for it to fit into the meter and make sense it must be a disyllabic verb in the first person singular, starting with a vowel, having a long first syllable and meaning something like "I paint" or "I adorn". *Orno* fits the requirements and seems not inconsistent with the word's visible traces. It is even a near rhyme with *transformo*.

Discite scolares || que partibus octo secarís

The first verse is clear: "I am called the teacher of properly written and spoken language." The second verse obviously refers to the eight parts of speech, although the 2<sup>nd</sup>-person singular *secaris* ("you are divided") is ungrammatical, and should, perhaps, be emended to *secares* to accommodate the rhyme.

The Leipzig manuscript, by contrast, has a perfectly readable text:

Recte scribendi sum doctrix atque loquendi.

Hoc paucis facio tantummodo partibus octo.

I.e., "I teach how to write and speak correctly. / I do this by means of as few as eight parts."

The description of philosophy, the characterization of its branches, and the verses assigned to each of the arts of the trivium make up a whole, as can be assumed by comparing GKS 1812 4° and Leipzig lat. 1253. Even if there are some differences between the two diagrams, they present the same structure, and partially similar texts. It is, therefore, not unreasonable to suppose that they represent two different versions of a common original.

### Conclusion

The preceding analysis has clarified some points concerning the structure and content of the diagram of the division of philosophy in GKS 1812 4°. It represents a type of *divisio philosophiae* that can be traced back to ca. 1075–1125. The immediate context of the diagram in the Icelandic manuscript is that of the *Aratea* and, more generally, of a compilation of computus manuscripts from different periods. The analysis has also revealed that GKS 1812 4° I is probably a rather late copy of an older manuscript, now lost. Scribal errors, as well as the awkward placing of the second couplet of the laudatory verse on Philosophy, indicate that the exemplar may have been partly corrupt.

How did the *divisio philosophiae* and the computus content in general find their way to medieval Iceland, and what purpose did they serve? This

<sup>&</sup>lt;sup>43</sup> In the Leipzig manuscript, the cosmographical drawing on f. 83r might possibly be seen as an indication of a different context from that of the Boethian commentary.

question can only be touched on briefly here. Let it suffice to say that several Icelandic scholars are known to have traveled or studied abroad in the 11<sup>th</sup> and 12<sup>th</sup> centuries, and so could have come into contact with philosophical manuscripts of various sorts. The conjecture that the manuscript might have been connected to the monastery of Viðey has been strengthened by later scholarship. First, as Lönnroth noted in his 1968 study, GKS 1812 4° was not the only manuscript traceable to Viðey to have been in the possession of Hákon Ormsson in the 17th century. 44 A 16th-century copy of archival material from Viðey, partly written by Hákon's grandfather, Vigfús Jónsson, was also in his possession. 45 Second, Lönnroth drew attention to the obituary notices on f. 35r of the calendarium fragment in GKS 1812 4°. Two of these concern canons of Viðey. 46 In addition, it has been pointed out that a computus manuscript, the so-called Rím II, contains measurements of ebb and tide that correspond to the location of Viðey. 47 In the latter half of the 13<sup>th</sup> century there was, evidently, good knowledge of astronomy, geography, and computus in place at Viðey. However, the inventory of the monastery's books in 1397 does not contain any title reminiscent of the contents of GKS 1812 4°, although the manuscript could have been included in a volume containing two old annals and other material.<sup>48</sup>

It seems, therefore, that GKS 1812 4° actually had something to do with Viðey, although it may not have formed part of the monastery's book collection. The connection to Viðey does not imply that all of the remaining fragments were originally composed or copied there. Further research may, perhaps, shed some light on the provenance of the different fragments. It could be pointed out that one of the duties of the Lawspeaker of the Alþingi, an office in function until ca. 1270–80, was to determine and announce, at the close of the annual session of parliament, the calendar of the following year, including Ember Days and the beginning

<sup>&</sup>lt;sup>44</sup> Lönnroth, "Styrmir's Hand in the Obituary of Viðey," 86.

<sup>&</sup>lt;sup>45</sup> Ragnheiður Mósesdóttir, "Bessastaðabók og varðveisla Viðeyjarklaustursskjala" [The Book of Bessastaðir and the Preservation of the Archives of Viðey monastery], *Saga*, 34 (1996), 219–254. The manuscript in question is AM 238 4°.

<sup>&</sup>lt;sup>46</sup> Lönnroth, op.cit., loc. cit.

<sup>&</sup>lt;sup>47</sup> N. Beckman, "Inledning" [Introduction], Alfræði íslenzk, II, xlix-l.

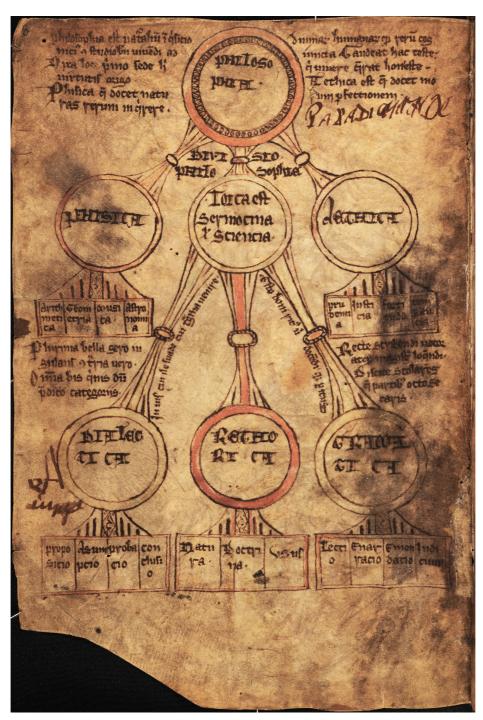
<sup>&</sup>lt;sup>48</sup> Diplomatarium Islandicum, IV, 111.

of Lent.<sup>49</sup> The practical implications of the office of Lawspeaker may thus have encouraged the study and teaching of computus for wider purposes than strictly ecclesiastical or theoretical use.

It appears, then, that the diagram of philosophy in GKS 1812 4° displays a classification system of philosophy and the sciences that may be dated to the second half of the 11<sup>th</sup> century. It is more recent and more differentiated than the older systems of Isidore and Alcuin, and most closely resembles the system represented by the text of Conrad of Hirsau and the diagram in Leipzig lat. 1253, yet is rather simple, and even primitive, compared to the systems devised in the schools in Paris, in the 12<sup>th</sup> and 13<sup>th</sup> centuries, by scholars such as Hugh of St. Victor and Robert Kilwardby. According to the system displayed in GKS 1812 4°, philosophy is divided into physics, ethics, and logic. The category of physics comprises arithmetic, geometry, astronomy, and music; grammar, rhetoric, and dialectic belong to logic; and the four cardinal virtues to ethics. The fragmentary state of the manuscript and the incomplete astronomical content of GKS 1812 4° seem to indicate that it has been copied from an older exemplar, and the annotations to the divisio philosophiae diagram could also point in this direction. Although contained in a 14<sup>th</sup>-century manuscript, the diagram of philosophy in GKS 1812 4° reflects the state of knowledge in Europe between ca. 1075 and 1125.50

<sup>&</sup>lt;sup>49</sup> Grágás, ed. Gunnar Karlsson, Kristján Sveinsson and Mörður Árnason (Reykjavik: Mál og menning, 2001), 460; cf. Laws of Early Iceland. Grágás I, tr. Andrew Dennis, Peter Foote and Richard Perkins (Winnipeg: The University of Manitoba Press, 1980/2006), 188.

<sup>&</sup>lt;sup>50</sup> The present article is a condensed and revised version of a previous publication in Icelandic, "*Philosophia* i miðaldahandritinu GKS 1812 4to og tengsl hennar við *fróðleiksást*", in *Í garði Sæmundar fróða* (Reykjavík: Hugvísindastofnun, 2008), 25–45. I wish to thank Sten Ebbesen, who provided various helpful suggestions and corrections. Also, Svavar Hrafn Svavarsson, University of Iceland, and Gottskálk Jensson, University of Copenhagen, assisted me in deciphering the text of the manuscript. I also thank Christian Etheridge, University of Copenhagen, and Dale Kedwards, University of York, for comments and information on the astronomical aspects. The Árni Magnússon Institute for Icelandic Studies has permitted the reproduction of the photograph of the manuscript. I thank the director of the Institute, Guðrún Nordal, for her kind permission, and Haukur Þorgeirsson for the provision. Philip Roughton translated the original Icelandic text and reviewed the modifications and additions. Bestu þakkir!



GKS 1812, 4°: 4v. By courtesy of The Árni Magnússon Institute for Icelandic Studies.